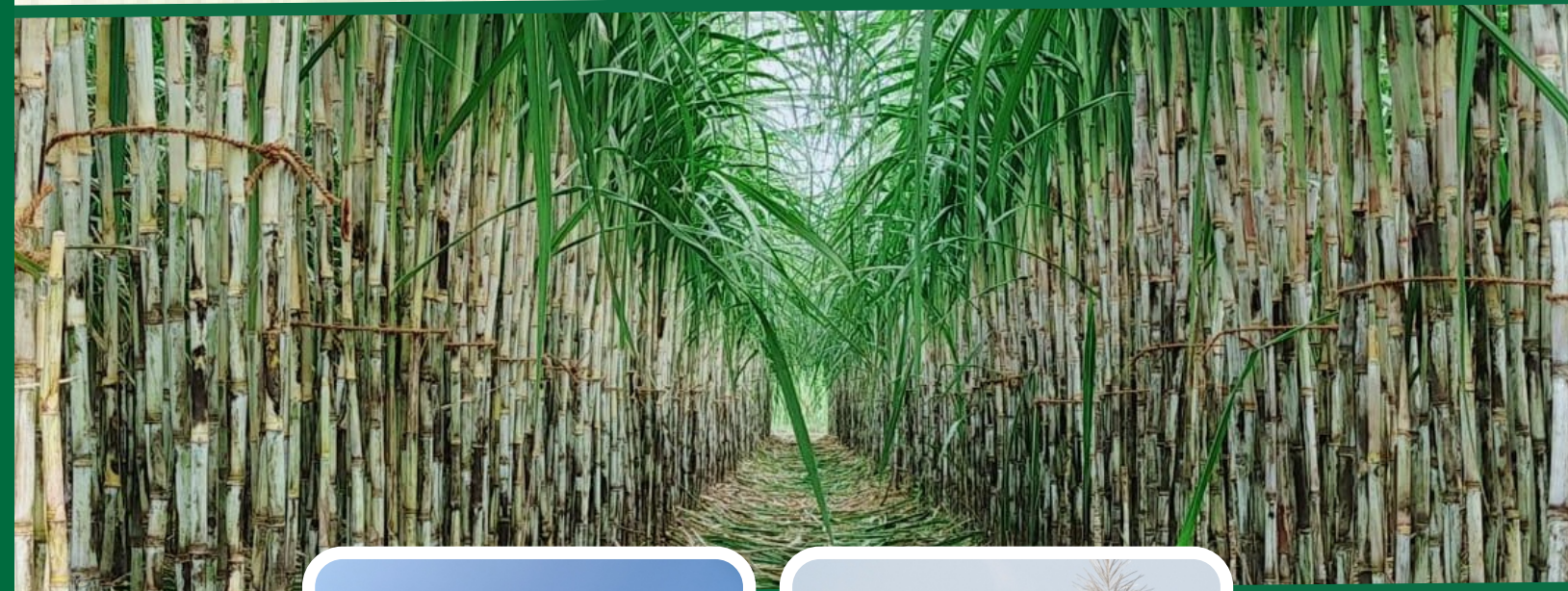


**ALL INDIA COORDINATED RESEARCH PROJECT  
(SUGARCANE)**

**PRINCIPAL INVESTIGATOR'S REPORT  
VARIETAL IMPROVEMENT PROGRAMME  
2020-21**



**ALL INDIA COORDINATED RESEARCH PROJECT (SUGARCANE)  
VARIETAL IMPROVEMENT PROGRAMME 2020-21**



**ICAR - Sugarcane Breeding Institute  
Coimbatore - 641 007**



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Coimbatore - 641 007**



# **ALL INDIA COORDINATED RESEARCH PROJECT ON SUGARCANE**

## **VARIETAL IMPROVEMENT PROGRAMME**

### **PRINCIPAL INVESTIGATOR'S REPORT 2020-21**

*COMPILED BY*

**Dr. G. HEMAPRABHA**

PRINCIPAL INVESTIGATOR  
VARIETAL IMPROVEMENT PROGRAMME  
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*WITH THE ASSISTANCE OF*

**Dr. P. GOVINDARAJ**

|   |  |
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| North West Zone                           | Dr. R. KARUPPAIYAN<br>Dr. K. ELAYARAJA                                       |
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| Fluff Supply Programme and weather report | Dr. A. ANNA DURAI  |

**ICAR - SUGARCANE BREEDING INSTITUTE  
COIMBATORE**



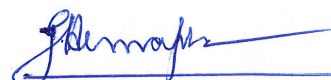
## Acknowledgement

I wish to express my sincere appreciation and thanks to all the scientists of the participating AICRP(S) centres for conducting the crop improvement trials effectively as per the technical programme and sending the data in time for compilation of annual report.

Preparation of annual report with the large volume of data received from 38 AICRP(S) participating centres is a challenging task. I thank my colleagues Drs. P. Govindaraj, S. Alarmelu, A. Anna Durai, R. Karuppaiyan, C. Appunu, S. Sheelamary, V. Sreenivasa, K. Elayaraja, H.K. Mahadeva swamy, T. Lakshmi Pathy and V. Vinu for effective compilation and verification of the data of Zonal Varietal Trials, fluff supply programme and weather data of all centres.

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Coimbatore  
28.09.21



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**All India Coordinated Research Project (Sugarcane) – Year 2020-21**  
**Principal Investigator's (Crop Improvement) report**

**EXECUTIVE SUMMARY**

Crop Improvement Programme of All India Co-ordinated Research Project on Sugarcane (AICRP-S) is the major contributor for the development and release of improved varieties under National Sugarcane Varietal Development Programme. During the year 2020-21, six varieties developed through AICRP (S) viz., Co 13013, VSI 12121, MS 13081 (Peninsular zone), Co 15023, CoPb 14185, CoLK 14204 (North west zone) CoP 09437 (North Central and North East Zones) were notified for cultivation. The twin objectives of Crop Improvement programmes under AICRP(S) are Fluff Supply Programme involving 24 sugarcane breeding centres and Zonal Varietal Trials (ZVT) conducted in 39 sugarcane research stations located in five different agro-climatic zones. National Hybridization Garden operating at ICAR-Sugarcane Breeding Institute, Coimbatore is responsible for fluff supply programme wherein desired and specific crosses are made for each centre and the crossed fluff are sent to the respective centres for generation of variability and initiating location specific varietal development programmes. Elite clones selected by these 24 sugarcane breeding centres and later accepted in the AICRP(S) workshop are pooled zone-wise and tested under Zonal Varietal Trials. This gives an opportunity to test the clones developed by one centre by all other centres of the zone. Thus, AICRP(S) provides a common platform for exchanging and evaluating elite clones developed by different participating centres within each zone. In ZVT, the clones are tested for one year in Initial Varietal Trial (IVT) and superior clones are promoted to Advanced Varietal Trials (AVT) and tested for two years in two plant and one ratoon crops. Based on the performance of entries in AVT for cane yield, juice quality and resistant to biotic and abiotic stresses in each zone, the best performing entries are initially identified by Varietal Identification Committee of AICRP(S) and further notified by Central Subcommittee on Crop Standards Notification and Release of Varieties for Agricultural Crops for general cultivation. The major activities under the crop improvement programmes of AICRP(S) during 2020-21 are summarized below.

**Weather, pests and diseases situation:**

Normal rainfall during the year 2020-21 was experienced in many centers. The highest rainfall was reported by Thiruvalla (2828.6 mm) in Peninsular Zone followed by Buralikson (1639.5 mm) in North East Zone. Coimbatore in Peninsular zone reported the lowest rainfall of 543.8 mm followed by Faridkot (640.4 mm) in North West Zone. The highest maximum temperature (44.3°C) was recorded during May 2020 at Rudrur in Peninsular Zone while the lowest minimum temperature of 6.2°C was recorded during January 2021 at Faridkot. Minor incidence of insect pests like early shoot borer, top shoot



borer, internode borer, leaf hoppers, woolly aphid, white grubs, root grub, pyrilla, mealy bug, scale insect, whitefly and sugarcane wooly aphid and diseases like leaf spot, rust, yellow leaf disease, grassy shoot, pokkah boeng, mosaic, brown spot and smut were reported by the different centers. Pusa centre reported the incidence of root borer, shoot borer, top borer, stalk borer, plassey borer, pyrilla, black bug, mealy bug, stem borer, smut, pokkahboeng, wilt, red rot, yellow leaf disease and mosaic.

**Participating centres of AICRP(S) in different zones**

| Zone               | No. of centres | Participating centres   |  |
|--------------------|----------------|---|--|
|                    |                | Fluff receiving and ZVT centres   | ZVT – centres alone  |
| Peninsular Zone    | 18             | Rudrur, Perumalapalle, Navasari, Mandya, Sankeshwar, Padegaon, Pune, Powarkheda, Thiruvalla | Sameerwadi, Akola, Pravaranagar, Kolhapur, Basmathnagar, Pugalur, Coimbatore, Raipur, Belagavi |
| East Coast Zone    | 5              | Anakapalle, Vuyyuru, Cuddalore, Nayagarh  | Nellikuppam  |
| North West Zone    | 10             | Faridkot, Lucknow, Shahjahanpur, Pantnagar, Uchani, Kapurthala                              | Muzaffarnagar, Karnal, Kota, Sriganaganagar  |
| North Central Zone | 4              | Motipur, Pusa, Seorahi, Bethuadahari  | -  |
| North Eastern Zone | 1              | Buralikson  | -  |
| <b>Total</b>       | <b>38</b>      | <b>24</b>   | <b>14</b>  |

**Trials conducted and the number of entries evaluated:**

A total of 26 Zonal Varietal Trials (12 in early, 10 in midlate and 4 by combining both early and midlate entries) were conducted during the year 2020-21. There were 6 IVT and 20 AVT trials. A total of 47 entries in early group, 49 entries in midlate group and 45 entries by combining both early and midlate groups were evaluated of which 14 in early, 9 in midlate and 6 by combining both early and midlate groups were promising. Details of the trials conducted, number of entries evaluated and the promising clones identified are given below.

| Zone / Trials                              | No. of clones + standards |           | Promising clones                     |                                      |
|--|---------------------------|-----------|--------------------------------------|--------------------------------------|
|  | Early                     | Midlate   | Early                                | Midlate                              |
| <b>Peninsular Zone</b>                     |                           |           |                                      |                                      |
| AVT II Plant                               | 15+3                      |           | MS 14082                             |                                      |
| AVT Ratoon                                 | 15+3                      |           | MS 14082                             |                                      |
| Pooled analysis                            | 15+3                      |           | MS 14082                             |                                      |
| AVT I Plant                                | 12+3                      |           | Co 11015, Co 14005,<br>Co 15017      |                                      |
| IVT  | 18+3                      |           | -                                    |                                      |
| <b>Total entries</b>                       | <b>45</b>                 |           | <b>4</b>                             |                                      |
| <b>East Coast Zone</b>                     |                           |           |                                      |                                      |
| AVT II Plant                               | 4+3                       | 5+3       | CoA 16321, CoC 16337,<br>CoV 16356   | -                                    |
| AVT Ratoon                                 | 4+3                       | 5+3       | CoA 16321, CoC 16337                 | CoV 16357                            |
| Pooled analysis                            | 4+3                       | 5+3       | CoA 16321, CoV 16356                 | CoV 16357                            |
| AVT I Plant                                | 3+3                       |           | -                                    | -                                    |
| IVT  | 3+3                       |           | CoV 18356, CoV 18357                 | -                                    |
| <b>Total entries</b>                       | <b>10</b>                 | <b>5</b>  | <b>5</b>                             | <b>1</b>                             |
| <b>North West Zone</b>                     |                           |           |                                      |                                      |
| AVT II Plant                               | 6+3                       | 7+3       | Co 15027, Co 15023                   | CoS 15232, CoLk 15206,<br>CoLk 15207 |
| AVT Ratoon                                 | 6+3                       | 7+3       | -                                    | CoLk 15206, CoLk 15207               |
| Pooled Analysis                            | 6+3                       | 7+3       | Co 15027                             | CoS 15232, CoLk 15206,<br>CoLk 15207 |
| AVT I Plant                                | 6+3                       | 5+3       | -                                    | CoS 16233                            |
| IVT  | 7+3                       | 15+3      | -                                    | Co 17018, CoS 17233,<br>CoS 17235    |
| <b>Total entries</b>                       | <b>19</b>                 | <b>27</b> | <b>2</b>                             | <b>7</b>                             |
| <b>North Central &amp; North East Zone</b> |                           |           |                                      |                                      |
| AVT II Plant                               | 5+3                       | 7+3       | CoP 15436, CoLk 15466                | -                                    |
| AVT Ratoon                                 | 5+3                       | 7+3       | CoP 15436, CoLk 15466,<br>CoLK 15467 | -                                    |
| Pooled Analysis                            | 5+3                       | 7+3       | CoLk 15466                           | -                                    |
| AVT I Plant                                | 5+3                       | 4+3       | CoP 16437, CoLk 16466                | -                                    |
| IVT  | 8+3                       | 6+3       | CoP 17437, CoP 17438                 | -                                    |
| <b>Total Entries</b>                       | <b>18</b>                 | <b>17</b> | <b>7</b>                             |                                      |
| <b>Grand total (Entries)</b>               | <b>47</b>                 | <b>49</b> | <b>14</b>                            | <b>8</b>                             |
|  | <b>45</b>                 |           | <b>4</b>                             |                                      |

\* common entries in II Plant, ratoon and pooled analysis.

### Fluff Supply Programme:

NHG 2020-21 was established with 424 parents including nine new parents viz., BO 128, CoP 9301, CoP 18436, CoP 18437 from Pusa, CoV 18357 and CoV 18358 from Vuyyuru LG 11440, LG 14482 and LG 14564 from Lucknow and two poly-cross nurseries for tropical and subtropical regions were planted and maintained in pest and disease free condition. Out of 424 parents, 411 flowered with the flowering intensity of 96.93 %. Since the COVID-19 pandemic had restricted travel during 2020, ICAR-SBI had taken up the responsibility of making the crosses for the entire country. The centers were asked to send the list of crosses of their choice based on the flowering data hosted and updated daily in ICAR-SBI website. Hybridization work was initiated on 27<sup>th</sup> October 2020 and concluded on 5<sup>th</sup> December 2020. Totally 426 bi-parental crosses, 342 general collections and 10 poly crosses at Coimbatore and 25 wide crosses at Agali, were done and fluff were sent to fluff receiving centres as detailed below.

#### Details of crosses made and fluff supplied from NHG during 2020-21

| Zone                            | Bi-parental crosses |           | General collections |            | Polycrosses |           | Total fluff weight (g) |
|---------------------------------|---------------------|-----------|---------------------|------------|-------------|-----------|------------------------|
|                                 | No                  | Fl.wt (g) | No                  | Fl.wt. (g) | No.         | Fl.wt.(g) |                        |
| Peninsular Zone                 | 160                 | 3487.5    | 118                 | 2603.0     | 5*          | 369.0     | 6459.5                 |
| East Coast Zone                 | 80                  | 1788.0    | 56                  | 1149.0     | 5*          | 209.0     | 3146.0                 |
| North West Zone                 | 101                 | 2560.0    | 108                 | 2378.0     | 5*          | 317.0     | 5255.0                 |
| North Central & North East Zone | 60                  | 1293.0    | 58                  | 1011.0     | 5*          | 104.0     | 2408.0                 |
| Grand total                     | 401                 | 9128.5    | 342                 | 7141.0     | 5*          | 999.0     | 17268.5                |
| NDHF, Agali                     | 25                  | 775.1     | -                   | -          |             |           | 775.1                  |
| Coimbatore and Agali            | 426                 | 9903.6    | 342                 | 7141.0     | 10*         | 999.0     | 18043.6                |

\* excluding duplicates

**Action taken report on the recommendations of the 33<sup>rd</sup> biennial workshop of AICRP on Sugarcane held between October 19th & 20th, 2020 at ICAR-Indian Institute of Sugarcane Research, Lucknow in virtual mode**

| S.No.                  | Recommendation/Action points   | Centres                           | Action taken   |
|------------------------|--|-----------------------------------|--|
| <b>Recommendations</b> |  |                                   |  |
| 1                      | Seven elite clones viz. Co 13013, VSI 12121, CoM 13081 (PZ), Co 15023, CoLk 14204, CoPb 14185 (NWZ) and CoSe 11453 (NC&NEZ) were identified by the VIC during the Workshop   | <b>PC, Lucknow</b>                | Concerned centres where the clone was developed have been informed and advised to send the proposal for further notification to CVRC. Three sugarcane varieties viz., Co 15023, Co 13013 and VSI 12121 have been released & notified by CVRC.  |
| 2                      | The parents in the National Hybridization Garden must be screened for prevailing races of red rot pathogen by the respective centres. This action to be completed within two years and the information may be provided to the ICAR-SBI for updating the database of NHG parents. The participating centres of the fluff supply programme must select one of the parents with resistance to red rot and or smut | <b>All centres and Coimbatore</b> | <p>Fluff receiving centres reported that the parents contributed by the respective centres would be screened for the prevailing races of red rot. The information on reaction to red rot will be sent to ICAR-SBI for updating the NHG database. The centres also assured that one of the parents with resistance to red rot and smut will be selected during the crossing programme.</p> <p><b>Padegaon:</b><br/>There is no sanctioned post of pathologist and also no facility for screening of varieties for red rot at this centre. It was suggested to test the genotypes at ICAR-SBI, Coimbatore and the charges of testing if any for red rot the same will be paid by this centre.<br/>The entries of CSRS Padegaon in the National Hybridization Garden are:</p> |

|   |  |                             |   |
|---|--|-----------------------------|---|
|   |  |                             | <p>1. MS 6847, 2. CoM 6806, 3.CoM 9220, 4. CoM 0265, 5.CoM 9206, 6. CoM 9217, 7.CoM 7719, 8. CoM 7704, 9.CoM 7714, 10. CoM 6615, 11.CoM 7712, 12. MS. 9001.</p> <p><b>Buralikson:</b><br/>The centre wanted single eye buds of parental varieties available in NHG so that they can be screened at SRS, Buralikson.</p>   |
| 3 | <p>Red rot is emerging as a major disease in sub-tropical India. With minor diseases like Pokkah Boeng and rust also assuming importance and YLD continuing to be a serious concern, periodical Breeders and Pathologists Meet may be organized involving AICRP(S) participants and external experts in the relevant fields to discuss breeding and disease management issues and to evolve suitable research strategies</p> | <b>Project Co-ordinator</b> | <p>In compliance, a meeting of Plant Pathologists was organized on dated 12<sup>th</sup> April, 2021. However, the Breeders &amp; Plant Pathologists Meet is being organized every year to discuss breeding and disease management issues</p>   |
| 4 | <p>NHG should be dynamic in composition with the inclusion of new genetic stocks having new sources of agronomically important genes. ICAR-SBI will exploit the large <i>Saccharum spontaneum</i> gene pool available with the Institute for this purpose. A core collection of germplasm based on morphological and molecular markers is to be developed and utilized to produce new genetic stocks for</p>                 | <b>ICAR-SBI, Coimbatore</b> | <p>The content of the National hybridization garden were revised based on the utilization of the parents in the crossing / breeding programme. A total of 147 parents which were not utilized in the crossing programme for the last five years were identified and excluded from NHG and 9 new parents viz., BO 128, CoP 9301, CoP 18436, CoP 18437 from Pusa, CoV 18357 and CoV 18358 from Vuyyuru LG 11440, LG</p> |

|   |  |                                 |   |
|---|--|---------------------------------|---|
|   | inclusion in NHG. ISH/IGH genetic stocks already identified for different traits should be included in NHG immediately during 2021 planting for use as parents by the participating centres  |                                 | 14482 and LG 14564 from Lucknow were included in NHG. Inter-specific hybrid (ISH) genetic stocks viz., ISH 100 (Tolerant to drought), ISH 176 (Resistance to smut and different isolates of red rot), ISH 229 (Resistant to smut) and ISH 287 and ISH 228 (Resistant to both tropical and subtropical isolate of red rot pathogen) were included in NHG 2021. Further new ISH clones with breeding potential identified will be included NHG 2022.<br>New project has been formulated at ICAR-SBI for constituting core collection of <i>Saccharum spontaneum</i> utilizing morphological and molecular markers for further exploitation in developing genetic stocks and improved varieties. |
| 5 | ICAR-SBI should help the participating centres in deciding the parents for 15 biparental cross combinations considering the breeding objectives. Parents should be selected for combining cane yield, juice quality, resistance to major pests and diseases and tolerance to abiotic stresses, ensuring parental diversity | <b>ICAR-SBI,<br/>Coimbatore</b> | IACR –SBI facilitates the scientists attending crossing programme by providing all available information about the parents on yield, quality and resistance / tolerance. Besides, they are also helped to effect wide crosses involving different species clones including <i>Saccharum spontaneum</i> and <i>Erianthus spp</i> available at National Distant Hybridisation Facility, SBIRC, Agali in order to improve resistance in the progenies. Further the centres were sensitised on the Parental Diversity Index   |

|                      |   |   |   |
|----------------------|---|---|---|
|                      |   |   | and Parental Utilization Index to achieve greater diversity in parental selection. ICAR-SBI helped the centres in identifying 20 cross combinations considering the breeding objectives of each zone.                                       |
| <b>Action Points</b> |   |   |   |
| 1                    | Monitoring of the ZVT trials during 2020 will be conducted online mode and the centres will make video footage of the trials clearly depicting the performance of the entries and standards. The team leader and members will evaluate the performance of the entries in comparison to the standards.   | <b>All centres, Monitoring teams of all zones</b> | Video footage of the trials were submitted by the centres to the respective monitoring team leaders for evaluation  |
| 2                    | Monitoring team should strictly follow the format circulated by the Principal Investigator (Crop Improvement) for evaluating the trials as well as the entries for uniformity and logical conclusion  | <b>Monitoring teams of all zones</b>              | All the five monitoring team followed the standard format circulated by PICI for the preparation of report.   |
| 3                    | Huge discrepancies were observed between the data presented when the new proposal was submitted for including in ZVT and the actual performance of the entries in IVT. Scientists should properly evaluate and only the best entries must be proposed satisfying the set criteria for proposing entries | <b>All centres</b>                                | Compliance of the recommendation was reported by all the centres  |
| 4                    | Mean cane yield reported by some of the centres for ZVT was found to be lower than the state average which showed poor maintenance of trials. All the centres should take proper care in conductance of the trials for precise evaluation of potential of the entries                                   | <b>All centres</b>                                | All the centres assured to take proper care in conducting the trials. Pusa centre communicated that good land was not allotted for conducting AICRP varietal trials/others trials by the university. In spite of that Pusa took proper care |

|   |   |   |  |
|---|---|---|--|
|   |   |   | to maintain a good crop.   |
| 5 | Fluff Supply Programme: Due to COVID 19 situation, participating centres can propose a maximum of 15 biparental crosses and 3-4 bulk crosses. In addition, GC's fluff will be also sent to the centres on request. The centres who are having stored fluff from the crosses made in pervious year can use the stored fluff in the coming season and these centres are advised to propose only limited specific cross combinations | <b>All fluff supply programme participating centres</b> | Every centre received 20 biparental crosses and 8 Poly crosses. Lucknow centre used the stored fluff for raising seedlings during the year 2021              |
| 6 | Data base of the NHG parents on agronomical and stress resistance are available with ICAR-SBI which can be utilized for deciding the best diverse cross combination   | <b>All fluff supply programme participating centres</b> | The centres communicated that diverse parents would be selected based on the agronomical parameters and stress resistance while proposing cross combinations |
| 7 | Number of seedlings produced by the centres was about 6 % of the potential seedlings that could be generated from the quantity of fluff supplied. Centres should take care in raising seedlings   | <b>All fluff supply programme participating centres</b> | Proper care in raising seedling and generation of large number of seedlings were communicated by the centres   |
| 8 | Sowing of fluff may be taken up as per the germination data provided by ICAR-SBI. The number of seedlings raised may be limited to the seedling handling capacity of each centre. Balance fluff may be stored for future use  | <b>All fluff supply programme participating centres</b> | Many centres used the total quantity of fluff supplied. The centres which had facility for cold storage stored the excess fluff for future use.              |
| 9 | The participating centres can use the photoperiodic chamber available at ICAR-SBI for induction/ delaying of flowering. The centres should give indent in advance before the planting of NHG for inclusion of such non flowering  | <b>All fluff supply programme participating centres</b> | Perumalapalle centre informed that photoperiodic chamber facility would be utilized for induction of flowering in 2003 V 46, 2003 T 121 and 97 R 401         |



|    |  |                               |   |
|----|--|-------------------------------|---|
|    | parents in the crossing programme  |                               |   |
| 10 | Performances of the standards are poor in some centres due to varietal deterioration. Hence all the centres should use the seed materials for the standards derived from tissue culture based disease free settlings | <b>All centres</b>            | Utilization of pure and healthy seed materials derived from disease free tissue culture seedlings for the standards was informed by the centres<br><b>Thiruvalla, Pantnagar:</b><br>Currently, these centres have no tissue culture facility.<br><b>Bethuadahari:</b><br>Tissue culture facility is not available in Bethuadahari centre. This centre will request to Pusa Centre for providing the tissue culture based disease free settlings of the standard CoSe 95422. |
| 11 | The centres which are not conducting trials properly and reporting illogical data continuously for three years will be reported to the concerned university and continuation of the centres will be reviewed by PC   | <b>All centres and PC</b>     | The PC Unit is closely monitoring and if such information comes to their notice, appropriate action will be taken against the centres   |
| 12 | The data sent by Basmathnagar were not reliable for the past three years. Continuation of the centre may be decided by PC  | <b>Basmathnagar and PC</b>    | Basmathnagar informed PC that all the observations were reliable as per their best knowledge. The issue will be discussed in the forthcoming Group Meeting of AICRP on Sugarcane  |
| 13 | Powerkheda centre can get the new proposals tested at Navsari Centre for red rot reaction  | <b>Powerkheda and Navsari</b> | No material was received by Navasari centre   |
| 14 | Four out of five ratoon trials conducted by the ECZ centres failed as reported by monitoring team. Centres should take care of the ratoon trials by adapting proper ratooning operation and                          | <b>All centres and PC</b>     | Maintenance of good ratoon crop was assured by the centres of East Coast Zone<br><b>Cuddalore:</b><br>Due to heavy rain, the trials were lodged when monitoring team visited  |

|    |   |   |   |
|----|---|---|---|
|    | management practices  |   | during November and December. Later the excess water was drained and the crop was harvested after collecting required data  |
| 15 | Shahjahanpur will send the seed materials of CoS 08279 to Sankeshwar for screening under drought condition  | <b>Shahjahanpur and Sankeshwar</b>  | Shahjahanpur supplied seed materials of CoS 08279 to Sankeshwar   |
| 16 | In the climate resilient trial, better and equal germination % should be ensured in both normal and in the plots where stress would be imposed for logical results and conclusion   | <b>Anakapalle, Sankeswar, Pune, Lucknow Karnal, Motipur, Pusa and Pantnagar</b> | Proper care for ensuring good and uniform germination was reported by the centres   |
| 17 | The centres should scrutinize the data for typographical/ logical errors before sending the data to PICI and PC   | <b>All centres</b>  | Compliance of the recommendation was communicated by the centres  |
| 18 | The trial under “Evaluation and identification of climate resilient ISH and IGH genetic stocks” will be conducted with 18 ISH/IGH clones under drought (Sankeswar, Pune, Lucknow and Karnal) and water logging (Motipur, Pusa and Pantnagar) during the year 2021-22. Thirteen near commercial clones will be evaluated under drought condition at Sankeshwar, Anakapalle and Lucknow during the year 2021-22 | <b>Anakapalle, Sankeswar, Pune, Lucknow Karnal, Motipur, Pusa and Pantnagar</b> | The trials were conducted as per the technical programme by all the centres   |
| 19 | Pusa and Pantnagar centres to collect the seed material of near commercial clones from Motipur centre for initial multiplication during the year 2021-22 and planting trial during 2022-23 under water logging conditions   | <b>Motipur, Pusa and Pantnagar</b>  | <b>Pantnagar</b> could not collect the seed material from Motipur due to COVID19 restrictions. <b>Pusa</b> collected the clones from Motipur but due to heavy rain many clones were lost. |
| 20 | Some sugar mills are directly bringing varieties from foreign countries without regulatory approvals and introducing them   | <b>All centres and PC</b>   | Centres communicated that such incidence would be reported to the PC immediately.   |

|    |   |                                       |  |
|----|---|---------------------------------------|--|
|    | to farmers without proper quarantine which may lead to disease epidemics. The centres should keep vigilant and inform such incidence to PC for further action   |                                       | <b>Kawardha:</b> Sugar mills in the state do not directly bring varieties but farmers are bringing varieties of other zones and cultivating.<br><b>Pusa</b> informed that all sugar factories were bringing planting materials from outside the state which imposed threat for red rot and other diseases in whole NC&NE Zone in general and Bihar in particular.  |
| 21 | Shifting of the Centre / place of testing should be done only with the approval of PC by the centres considering the purpose for which the location was selected for conducting ZVT   | <b>Akola centre and PC</b>            | <b>Akola:</b><br>Request was made to PC for approving the shifting of the location of AICRP(S) centre from Akola to Tharsa (vide Lr. No. 361 dated 04.01.21). The PC informed that the decision would be made after discussion with the ADG(CC).   |
| 22 | Proper MoU must be signed between the research centres and sugar mills before providing pre-release clones for evaluation which includes restriction of supply to farmers. MoU should clearly indicate that the clones should not be given to farmers before notification | <b>All centres</b>                    | This is followed in many of the centres and all the centres reported compliance of the recommendation<br><b>Padegaon:</b><br>Some factories are bringing varieties from other states directly and there is no control over them, like Co 11015 which is not released in Maharashtra state till date. ICAR-SBI supplied materials only with proper MTA to the indenting factories for conducting adaptive research trials in factory farms alone. |
| 23 | In Peninsular Zone, based on yield and quality parameters and reaction to red rot , 5 entries viz., Co 16006, Co 16010, Co 16018, CoVSI 16121 and PI 16131 were   | <b>All centres in Peninsular Zone</b> | All the centres except Perumalapalle of Peninsular Zone conducted the AVT I (Plant ) as per the technical programme<br><b>Perumalapalle:</b>   |

|  |  |  |  |
|--|--|--|--|
|  | selected. Hence AVT will be conducted with 5 entries and three standards during the year 2021-22 |  | The centre has expressed its inability to conduct AVT henceforth |
|--|--|--|--|



## **1. Weather conditions and pest and diseases incidence during 2020-'21 at different Zones**

### **1.1 Peninsular Zone**

Data received from the centres of Peninsular zone on weather parameters and pest diseases incidence are presented in Tables 1.1.1 to 1.1.11. The highest (44.3°C) during May 2020 and the lowest (26.46°C) during January 2020 monthly mean maximum temperature were recorded at Rudrur and Tharsa respectively. The lowest monthly mean minimum temperature of 11.6°C was recorded at Navsari during January 2020 and the highest mean minimum temperature of 35.3°C was at Rudrur during May 2020. The rainfall in the zone ranged from 543.8 mm at Coimbatore to 2828.6 mm at Thiruvalla. Diseases like leaf spor, rust and yellow leaf disease (YLD) and insect pests like early shoot borer (ESB), top shoot borer (TSB), leaf hoppers, woolly aphid, root grub, pyrilla and internode borer (INB) were observed at Mandya center. Diseases like grassy shoot, pokkah boeng, mosaic, rust, brown spot, smut and YLD and insect pests like ESB, INB, mealy bug and scale insect were observed in the trials at Pune centre. During the year, pests like ESB, INB, mealy bugs and white grubs and diseases viz. wilt, YLD, smut, grassy shoot disease and Pokka boeng were observed in the trials at CSRS Padegaon. Pests and diseases observed in Sankeshwar were root grub, ESB, whitefly, sugarcane wooly aphid, smut and rust. There is no any serious incidence of major pests and diseases in sugarcane experiments during the growth period at Navsari.

### **1.2 East Coast Zone**

Data received from the centers of East Coast Zone on weather parameters are presented in Tables 1.2.1 to 1.2.5. The highest maximum monthly mean temperature (43.0°C) was recorded at Vuyyuru during May 2020. Similarly the lowest monthly maximum temperature of 17.6°C during February 2021 was recorded at Anakapalle. The lowest monthly mean minimum temperature of 16.0°C was recorded at Anakapalle during December 2020 and the highest mean minimum temperature of 29.5°C was recorded at Cuddalore during May 2020. The rainfall in the zone ranged from 1345.4 mm at Nayagarh to 1801.6 mm at Nellikuppam.

### **1.3 North West Zone**

Data received from the centers of North West Zone on weather parameters are presented in Tables 1.3.1 to 1.3.5. The highest maximum monthly mean temperature (38.3°C) was recorded during May 2020 while the lowest maximum temperature 16.8°C was recorded at Faridkot during January 2021. The lowest mean minimum temperature (6.2°C) during January 2021 recorded at Faridkot while the highest mean minimum temperature (27.3°C) during August 2020 was recorded at the same centre. The rainfall in the zone ranged from 640.40 mm at Faridkot to 1252.8 mm at Pantnagar.

### **1.4 North Central and North Eastern Zones**

The highest maximum monthly mean temperature (33.8°C) and the lowest monthly mean maximum temperature (19.3°C) were recorded at Pusa center during April 2020 and January 2021 respectively. The lowest mean minimum temperature recorded at Pusa was 9.4°C during January 2021 and the highest monthly mean minimum temperature was 25.8° C during September 2020. The rainfall at the Pusa Centre was 1573.4 mm while Burlikson recorded

1639.5 mm of rainfall. Pests and diseases noticed in the trials at Pusa were root borer, shoot borer, top borer, stalk borer, plassey borer, pyrilla, black bug, mealy bug, stem borer, smut, pokkahboeng, wilt, red rot, Yellow leaf disease and mosaic.

## 1.1. PENINSULAR ZONE

### 1.1.1 Coimbatore

| Month and year    | Temperature °C |             | Relative humidity (%) |             | Wind velocity (km per hour) | Open pan evaporation (mm/day) | Rainfall (mm) | No. of rainy days |
|-------------------|----------------|-------------|-----------------------|-------------|-----------------------------|-------------------------------|---------------|-------------------|
|                   | Maximum        | Minimum     | AM                    | PM          |                             |                               |               |                   |
| January, 2020     | 31.3           | 20.2        | 86.9                  | 53.6        | 1                           | 3.2                           | -             | -                 |
| February, 2020    | 33.2           | 20.5        | 84.2                  | 45.7        | 1.7                         | 4.8                           | -             | -                 |
| March, 2020       | 35             | 23.2        | 85.6                  | 47.3        | 1.2                         | 5                             | 76.8          | 2                 |
| April, 2020       | 35             | 23.2        | 84.4                  | 45.1        | 1.3                         | 5.2                           | 30            | 2                 |
| May, 2020         | 33.2           | 24.8        | 86.7                  | 52.3        | 1.2                         | 4.7                           | 40.6          | 3                 |
| June, 2020        | 32.2           | 22.7        | 84.8                  | 63.3        | 2.1                         | 4.5                           | 10.8          | 1                 |
| July, 2020        | 31.8           | 22.6        | 86.5                  | 71.2        | 1.2                         | 4.2                           | 56.7          | 4                 |
| August, 2020      | 31             | 22.7        | 86.3                  | 65.2        | 1.7                         | 3.9                           | 40.4          | 5                 |
| September, 2020   | 31.1           | 22          | 87.7                  | 68          | 1.7                         | 4.4                           | 115.8         | 12                |
| October, 2020     | 31.6           | 21.9        | 89.2                  | 65.4        | 1.1                         | 4.1                           | 37.6          | 5                 |
| November, 2020    | 30.1           | 21.4        | 90.6                  | 64.5        | 0.4                         | 2.7                           | 118.4         | 9                 |
| December, 2020    | 28.3           | 20.1        | 87.3                  | 67.8        | 0.4                         | 2.2                           | 16.7          | 2                 |
| <b>Mean/Total</b> | <b>31.9</b>    | <b>22.1</b> | <b>86.6</b>           | <b>59.1</b> | <b>1.2</b>                  | <b>4.0</b>                    | <b>543.8</b>  | <b>45</b>         |

### 1.1.2 Kohlapur

| Month and Year         | Temperature (°C) |              | Relative Humidity (%) |              | Wind speed (km/h) | Bright Sunshine Hours (h) | Rainfall (mm) | Rainy Days | Evaporation (mm) |
|------------------------|------------------|--------------|-----------------------|--------------|-------------------|---------------------------|---------------|------------|------------------|
|                        | Max.             | Min.         | AM                    | PM           |                   |                           |               |            |                  |
| January 2020           | 31.00            | 14.16        | 88.8                  | 36.8         | 1.88              | 7.38                      | 0.0           | 0          | 4.0              |
| February 2020          | 32.80            | 15.68        | 80.25                 | 33.75        | 3.0               | 8.13                      | 0.0           | 0          | 5.38             |
| March 2020             | 35.73            | 16.83        | 74.25                 | 33.50        | 3.68              | 7.80                      | 0             | 0          | 6.28             |
| April 2020             | 37.78            | 20.06        | 76.80                 | 35.40        | 3.78              | 7.66                      | 33.70         | 2          | 6.38             |
| May 2020               | 36.65            | 21.03        | 84.25                 | 50.25        | 4.53              | 7.93                      | 96.50         | 4          | 5.25             |
| June 2020              | 30.15            | 20.50        | 92.25                 | 75.00        | 2.93              | 3.48                      | 227.90        | 14         | 2.43             |
| July 2020              | 28.82            | 20.22        | 94.20                 | 77.80        | 2.0               | 1.84                      | 143.40        | 13         | 1.72             |
| August 2020            | 26.88            | 19.73        | 96.25                 | 89.25        | 1.40              | 0.65                      | 505.60        | 23         | 1.30             |
| September 2020         | 29.80            | 19.65        | 94.00                 | 71.25        | 1.2               | 2.6                       | 281.20        | 11         | 1.83             |
| October 2020           | 30.83            | 19.75        | 95.75                 | 66.00        | 0.60              | 4.4                       | 280.50        | 11         | 2.83             |
| November 2020          | 31.14            | 17.54        | 88.60                 | 51.40        | 1.84              | 7.0                       | 11.3          | 1          | 3.54             |
| December 2020          | 31.13            | 16.28        | 84.25                 | 51.00        | 2.70              | 6.73                      | 0.0           | 0          | 3.55             |
| <b>Total / Average</b> | <b>31.89</b>     | <b>18.45</b> | <b>87.47</b>          | <b>55.85</b> | <b>2.46</b>       | <b>5.47</b>               | <b>1580</b>   | <b>79</b>  | <b>3.71</b>      |

### 1.1.3 Mandya

| Month and Year         | Temperature (°C) |              | Relative humidity (%) |              | Rainfall (mm) | Rainy days | Sun shine hours |
|------------------------|------------------|--------------|-----------------------|--------------|---------------|------------|-----------------|
|                        | Max.             | Min.         | AM                    | PM           |               |            |                 |
| April 2020             | 33.7             | 21.3         | 73                    | 53           | 78.2          | 6          | 6.5             |
| May 2020               | 33.3             | 21.1         | 92                    | 63           | 179.6         | 10         | 6.6             |
| June 2020              | 29.6             | 19.4         | 91                    | 66           | 58.6          | 6          | 3.4             |
| July 2020              | 28.7             | 18.9         | 92                    | 73           | 84.3          | 10         | 2.8             |
| Aug 2020               | 29.2             | 19.5         | 89                    | 69           | 67.1          | 4          | 2.6             |
| Sept 2020              | 29.9             | 19.6         | 91                    | 69           | 149.2         | 6          | 3.6             |
| Oct 2020               | 29.5             | 19.3         | 93                    | 70           | 222.5         | 12         | 4.8             |
| Nov 2020               | 29.3             | 19.0         | 90                    | 85           | 64.6          | 4          | 4.8             |
| Dec 2020               | 28.1             | 17.5         | 91.7                  | 63.8         | 9.0           | 3          | 3.5             |
| Jan 2021               | 29.4             | 16.7         | 87                    | 61           | 13.6          | 2          | 4.8             |
| Feb 2021               | 31.2             | 16.6         | 87                    | 42.4         | 36.8          | 2          | 7.2             |
| March 2021             | 33.5             | 18.5         | 81                    | 39           | 0             | 0          | 8.4             |
| <b>Total / Average</b> | <b>30.45</b>     | <b>18.95</b> | <b>88.14</b>          | <b>62.85</b> | <b>814.3</b>  | <b>65</b>  | <b>4.92</b>     |

### 1.1.4 Navsari

| Month                  | Temp. <sup>o</sup> c. |              | Relative Humidity |              | Rainfall (mm) | Rainy days (no.) |
|------------------------|-----------------------|--------------|-------------------|--------------|---------------|------------------|
|                        | Max.                  | Min.         | A.M.              | P.M.         |               |                  |
| January 2020           | 29.0                  | 11.6         | 87                | 55           | 0.0           | 0.0              |
| February 2020          | 32.5                  | 15.4         | 83                | 40           | 0.0           | 0.0              |
| March 2020             | 33.4                  | 18.2         | 89                | 49           | 0.0           | 0.0              |
| April 2020             | 37.1                  | 23.2         | 90                | 54           | 0.0           | 0.0              |
| May 2020               | 36.2                  | 26.8         | 84                | 61           | 0.0           | 0.0              |
| June 2020              | 33.2                  | 25.6         | 95                | 77           | 117.0         | 8.0              |
| July 2020              | 31.8                  | 25.2         | 95                | 86           | 674.0         | 16.0             |
| August 2020            | 29.5                  | 24.5         | 98                | 92           | 1265.0        | 26.0             |
| September 2020         | 32.4                  | 24.7         | 94                | 78           | 210.0         | 10.0             |
| October 2020           | 34.9                  | 22.5         | 91                | 63           | 5.0           | 1.0              |
| November 2020          | 33.6                  | 16.7         | 80                | 49           | 0.0           | 0.0              |
| December 2020          | 30.7                  | 14.8         | 86                | 59           | 39.0          | 2.0              |
| <b>Total / Average</b> | <b>32.86</b>          | <b>20.76</b> | <b>89.33</b>      | <b>63.58</b> | <b>2310</b>   | <b>63</b>        |

### 1.1.5 Padegaon

| Month         | Temperature (°C) |      | Humidity (%) |      | Mean Sunshine (Hrs.) | Rainfall (mm) | Rainy days |
|---------------|------------------|------|--------------|------|----------------------|---------------|------------|
|               | Max.             | Min. | AM           | PM   |                      |               |            |
| January 2020  | 27.9             | 13.2 | 97.9         | 65.5 | 7.4                  | 0.0           | 0.0        |
| February 2020 | 28.2             | 14.0 | 97.9         | 64.7 | 7.7                  | 0.0           | 0.0        |
| March 2020    | 30.4             | 15.3 | 97.9         | 79.4 | 7.9                  | 44.3          | 2.0        |
| April 2020    | 37.6             | 21.8 | 98.0         | 88.0 | 9.3                  | 12.3          | 2.0        |
| May 2020      | 38.9             | 23.3 | 96.0         | 83.0 | 9.8                  | 8.0           | 2.0        |



|                        |              |              |              |              |             |              |           |
|------------------------|--------------|--------------|--------------|--------------|-------------|--------------|-----------|
| June 2020              | 32.2         | 23.0         | 98.0         | 88.0         | 5.3         | 93.0         | 9.0       |
| July 2020              | 30.3         | 22.1         | 98.0         | 89.0         | 3.4         | 136.1        | 11.0      |
| August 2020            | 29.5         | 18.4         | 98.0         | 91.0         | 2.5         | 109.6        | 10.0      |
| September 2020         | 32.0         | 20.5         | 98.0         | 88.0         | 4.9         | 134.8        | 9.0       |
| October 2020           | 31.3         | 16.7         | 95.0         | 85.0         | 5.2         | 268.4        | 8.0       |
| November 2020          | 30.5         | 14.0         | 96.8         | 80.0         | 7.6         | 0.0          | 0.0       |
| December 2020          | 27.7         | 13.0         | 96.0         | 82.0         | 7.1         | 0.0          | 0.0       |
| <b>Total / Average</b> | <b>31.38</b> | <b>17.94</b> | <b>97.29</b> | <b>81.97</b> | <b>6.51</b> | <b>806.5</b> | <b>53</b> |

### 1.1.6 Pugalur

| Month                  | Temperature ( °C ) |              | Relative Humidity |              | Rainfall     | No. of Rainy |
|------------------------|--------------------|--------------|-------------------|--------------|--------------|--------------|
|                        | Min                | Max          | AM                | PM           | mm           | Days         |
| January 2020           | 19.29              | 33.77        | 89.74             | 45.68        | -            | -            |
| February 2020          | 20.03              | 35.38        | 82.24             | 41.86        | -            | -            |
| March 2020             | 21.03              | 36.97        | 79.06             | 42.10        | -            | -            |
| April 2020             | 26.05              | 38.80        | 71.37             | 38.83        | 9.40         | 1            |
| May 2020               | 25.55              | 38.74        | 71.68             | 40.45        | 48.20        | 3            |
| June 2020              | 23.47              | 35.43        | 79.67             | 50.13        | 86.40        | 3            |
| July 2020              | 21.74              | 34.81        | 87.39             | 50.77        | 95.40        | 9            |
| August 2020            | 22.55              | 35.55        | 82.10             | 50.39        | 61.00        | 3            |
| September 2020         | 22.23              | 35.87        | 82.83             | 49.73        | 98.20        | 8            |
| October 2020           | 22.81              | 36.39        | 81.74             | 48.74        | 43.50        | 2            |
| November 2020          | 21.07              | 32.83        | 90.47             | 49.57        | 109.30       | 5            |
| December 2020          | 19.58              | 31.71        | 92.19             | 59.94        | 52.80        | 6            |
| <b>Total / Average</b> | <b>22.11</b>       | <b>35.52</b> | <b>82.54</b>      | <b>47.35</b> | <b>67.13</b> | <b>4.44</b>  |

### 1.1.7 Pune

| Month           | Air temperature (°C) |       | Relative Humidity (%) |       | Rainfall (mm) | Rainy days | Wind Speed (Km per hour) | Evaporation (mm/day) |
|-----------------|----------------------|-------|-----------------------|-------|---------------|------------|--------------------------|----------------------|
|                 | Max                  | Min   | AM                    | PM    |               |            |                          |                      |
| January, 2020   | 29.60                | 13.38 | 93.89                 | 42.71 | 0.00          | 0.00       | 2.34                     | 2.89                 |
| February, 2020  | 31.08                | 14.62 | 87.89                 | 34.36 | 0.00          | 0.00       | 2.55                     | 4.25                 |
| March, 2020     | 33.72                | 16.30 | 78.20                 | 28.20 | 12.70         | 2.00       | 3.54                     | 5.72                 |
| April, 2020     | 38.49                | 20.85 | 69.00                 | 22.83 | 21.10         | 1.00       | 4.07                     | 7.84                 |
| May, 2020       | 38.11                | 23.17 | 69.86                 | 31.21 | 20.80         | 4.00       | 6.08                     | 8.59                 |
| June, 2020      | 31.48                | 22.35 | 82.36                 | 62.75 | 214.70        | 9.00       | 5.52                     | 4.85                 |
| July, 2020      | 30.55                | 21.67 | 86.46                 | 69.54 | 141.50        | 10.00      | 4.77                     | 3.54                 |
| August, 2020    | 27.39                | 21.42 | 90.93                 | 80.54 | 233.90        | 17.00      | 5.10                     | 2.48                 |
| September, 2020 | 30.82                | 21.89 | 89.09                 | 64.34 | 198.70        | 11.00      | 2.86                     | 3.28                 |
| October, 2020   | 31.35                | 19.81 | 92.61                 | 55.89 | 311.40        | 12.00      | 1.35                     | 2.90                 |
| November, 2020  | 30.94                | 15.66 | 90.75                 | 41.21 | 5.30          | 1.00       | 2.39                     | 3.53                 |

|                     |              |              |              |              |               |           |             |            |
|---------------------|--------------|--------------|--------------|--------------|---------------|-----------|-------------|------------|
| December, 2020      | 29.56        | 13.04        | 94.41        | 39.28        | 4.50          | 1.00      | 1.67        | 2.93       |
| <b>Total / Mean</b> | <b>31.92</b> | <b>18.68</b> | <b>85.45</b> | <b>47.73</b> | <b>1164.6</b> | <b>68</b> | <b>3.52</b> | <b>4.4</b> |

### 1.1.8 Rudrur

| Month               | Temperature (°C) |                    | RH-I         | RH-II         | Normal rainfall (mm) | Actual rainfall received (mm) | % of deviation | No. of rainy days |
|---------------------|------------------|--------------------|--------------|---------------|----------------------|-------------------------------|----------------|-------------------|
|                     | Min.             | Max.               |              |               |                      |                               |                |                   |
|                     | (° C)            | (° C)              |              |               |                      |                               |                |                   |
| January,2020        | 16.77            | 30.77              | 93.94        | 85.81         | 1.97                 | 16                            | 87.68          | 1                 |
| February,2020       | 17.65            | 31.25              | 91.56        | 84.21         | 3.26                 | 0                             | -100           | 0                 |
| March, 2020         | 21.36            | 34.56              | 91.21        | 76.23         | 2.31                 | 0                             | -100           | 0                 |
| April, 2020         | 28.35            | 39.41              | 93.75        | 54            | 21.59                | 0                             | -100           | 0                 |
| May, 2020           | 35.3             | 44.3               | 58.5         | 46.1          | 8.2                  | 16                            | 48             | 2                 |
| June, 2020          | 27.3             | 34.6               | 82           | 54            | 107.1                | 138.6                         | 22             | 6                 |
| July, 2020          | 25.1             | 31.7               | 88.1         | 62.8          | 112.01               | 194                           | 41             | 13                |
| August, 2020        | 23.5             | 30.5               | 94           | 84            | 216                  | 220                           | 1.8            | 11                |
| September, 2020     | 24.37            | 30.9               | 95.93        | 66.13         | 187                  | 138                           | -26.2          | 10                |
| October, 2020       | 23.8             | 31.87              | 94.13        | 72.42         | 65.64                | 30.3                          | -53.83         | 3                 |
| November, 2020      | 19.24            | 31.74              | 78.8         | 46.67         | 4.47                 | 0                             | -100           | 0                 |
| December, 2020      | 16.57            | 30.07              | 82.61        | 43.03         | 0.86                 | 0                             | -100           | 0                 |
| <b>Total / Mean</b> | <b>23.00</b>     | <b>33.20 86.61</b> | <b>86.61</b> | <b>63..58</b> | <b>56.34</b>         | <b>753.9</b>                  | <b>-32.98</b>  | <b>46</b>         |

### 1.1.9 Thiruvalla

| Month and Year         | Maximum temperature (°C) | Minimum temperature (°C) | Rainfall (mm) | No of rainy days |
|------------------------|--------------------------|--------------------------|---------------|------------------|
| January 2020           | 34.4                     | 21                       | 2.0           | 2                |
| February 2020          | 34.9                     | 21.8                     | 0.0           | 0                |
| March 2020             | 36.09                    | 25.88                    | 55.3          | 6                |
| April 2020             | 35.78                    | 25.67                    | 153.4         | 9                |
| May 2020               | 35.83                    | 25.66                    | 414.3         | 18               |
| June 2020              | 30.99                    | 24.39                    | 433.7         | 25               |
| July 2020              | 30.75                    | 24.1                     | 353.7         | 23               |
| August 2020            | 28.69                    | 22.43                    | 312.1         | 16               |
| September 2020         | 30.66                    | 24.23                    | 676.5         | 26               |
| October 2020           | 32.3                     | 24.67                    | 289.8         | 14               |
| November 2020          | 33.75                    | 24.75                    | 75.3          | 9                |
| December 2020          | 33.18                    | 24                       | 62.5          | 7                |
| <b>Total / Average</b> | <b>33.11</b>             | <b>24.05</b>             | <b>2828.6</b> | <b>155</b>       |

### 1.1.10 Sankeshwar

| Month           | Rainy days | Rainfall (mm) |
|-----------------|------------|---------------|
| January, 2020   | 0          | 0.0           |
| February, 2020  | 0          | 0.0           |
| March, 2020     | 1          | 11.4          |
| April, 2020     | 1          | 65.2          |
| May, 2020       | 4          | 58.2          |
| June, 2020      | 9          | 98.2          |
| July, 2020      | 13         | 124.0         |
| August, 2020    | 17         | 234.6         |
| September, 2020 | 14         | 222.8         |
| October, 2020   | 9          | 230.2         |
| November, 2020  | 0          | 0.0           |
| January, 2020   | 0          | 0.0           |
| <b>Total</b>    | <b>68</b>  | <b>1044.6</b> |

### 1.1.11.Tharsa

| Month/ year     | Temperature (°C) |       | Relative Humidity (%) |       | Rain fall (mm) | No. of rainy days | BSH   | Wind Speed Km / hr | Evaporation (mm) |
|-----------------|------------------|-------|-----------------------|-------|----------------|-------------------|-------|--------------------|------------------|
|                 | Max              | Min   | AM                    | PM    |                |                   |       |                    |                  |
| January, 2020   | 26.46            | 13.26 | 80.40                 | 62.40 | 68.3           | 6                 | 4.64  | 2.76               | 2.78             |
| February, 2020  | 30.20            | 15.15 | 74.75                 | 41.25 | 9.8            | 2                 | 6.67  | 2.98               | 4.50             |
| March, 2020     | 33.90            | 19.45 | 57.75                 | 27.00 | 45.6           | 5                 | 8.58  | 2.68               | 6.55             |
| April, 2020     | 39.24            | 24.00 | 41.00                 | 20.60 | 44.4           | 3                 | 8.31  | 4.30               | 7.50             |
| May, 2020       | 43.83            | 28.43 | 32.00                 | 19.75 | 50.1           | 5                 | 10.00 | 4.85               | 10.55            |
| June, 2020      | 33.23            | 24.00 | 86.25                 | 66.50 | 214.9          | 14                | 3.98  | 5.13               | 4.45             |
| July, 2020      | 33.46            | 24.52 | 86.00                 | 66.00 | 166.2          | 11                | 3.08  | 2.72               | 2.42             |
| August, 2020    | 30.35            | 23.93 | 87.50                 | 71.25 | 341            | 15                | 1.58  | 2.08               | 1.90             |
| September, 2020 | 32.88            | 24.63 | 83.25                 | 62.75 | 63.8           | 5                 | 4.33  | 2.05               | 2.25             |
| October, 2020   | 32.28            | 22.76 | 79.20                 | 62.00 | 50.6           | 2                 | 5.46  | 2.58               | 4.58             |
| November, 2020  | 31.13            | 17.58 | 79.50                 | 61.50 | 0              | 0                 | 6.5   | 2.58               | 3.90             |
| December, 2020  | 28.2             | 13.88 | 78.00                 | 59.75 | 0              | 0                 | 6.5   | 1.9                | 2.275            |
| Total / Average | 32.92833         | 20.96 | 72.13333              | 51.73 | 1054.7         | 68                | 5.80  | 3.05               | 4.47             |

## 1.2 East Coast Zone

### 1.2.1 Anakapalle

| Month and Year | Rainfall | Rainy Days | Maximum Temperature (°C) | Minimum Temperature (°C) | Relative humidity |    | Evaporation |
|----------------|----------|------------|--------------------------|--------------------------|-------------------|----|-------------|
|                |          |            |                          |                          | FN                | AN |             |

|                      |               |           |             |             |           |           |            |
|----------------------|---------------|-----------|-------------|-------------|-----------|-----------|------------|
| March, 2020          | 125.2         | 3         | 33.8        | 22.2        | 90        | 50        | 5.4        |
| April, 2020          | 116           | 2         | 35.6        | 24.7        | 90        | 52        | 6.1        |
| May, 2020            | 60.3          | 3         | 35.4        | 25.8        | 86        | 61        | 5.4        |
| June, 2020           | 183           | 9         | 34.2        | 26          | 85        | 65        | 4.3        |
| July, 2020           | 243.8         | 11        | 33.3        | 25.4        | 90        | 68        | 4.1        |
| August, 2020         | 139.1         | 9         | 32.4        | 25.3        | 91        | 69        | 3.5        |
| Sept., 2020          | 152.2         | 15        | 33.6        | 25.2        | 90        | 68        | 3.6        |
| Oct., 2020           | 446.6         | 11        | 32.1        | 24          | 92        | 69        | 2.6        |
| Nov., 2020           | 132.9         | 6         | 30.7        | 20          | 86        | 58        | 3.2        |
| Dec., 2020           | 0             | 0         | 30          | 16          | 91        | 53        | 2.8        |
| Jan, 2021            | 0             | 0         | 18          | 18          | 93        | 47        | 3.2        |
| Feb, 2021            | 0             | 0         | 17.6        | 17.6        | 90        | 38        | 4.5        |
| <b>Total/Average</b> | <b>1599.1</b> | <b>69</b> | <b>30.6</b> | <b>22.5</b> | <b>90</b> | <b>58</b> | <b>4.1</b> |

### 1.2.2 Cuddalore

| Month and Year       | Temp. (°C)   |              | RH (%)    | Average wind speed (kmph) | No. of rainy days | Total rainfall (mm) |
|----------------------|--------------|--------------|-----------|---------------------------|-------------------|---------------------|
|                      | Max.         | Mini.        |           |                           |                   |                     |
| March 2020           | 32.6         | 24.3         | 75        | 4.2                       | 0                 | 0                   |
| April 2020           | 35.7         | 26.1         | 76        | 4.4                       | 0                 | 0                   |
| May 2020             | 37.6         | 29.5         | 75        | 4.1                       | 0                 | 0                   |
| June 2020            | 37.9         | 27.9         | 70        | 5.1                       | 0                 | 0                   |
| July 2020            | 34.2         | 25.7         | 76        | 4.1                       | 4                 | 64                  |
| August 2020          | 34.0         | 26.1         | 75        | 4.4                       | 6                 | 113.2               |
| September 2020       | 33.3         | 25.4         | 78        | 4.2                       | 5                 | 94.8                |
| October 2020         | 33.1         | 25.8         | 82        | 3.3                       | 7                 | 195.2               |
| November 2020        | 30.5         | 23.2         | 88        | 4.3                       | 13                | 510                 |
| December 2020        | 28.8         | 22.7         | 88        | 3.7                       | 12                | 489.5               |
| January 2021         | 29.8         | 22.7         | 87        | 3.5                       | 7                 | 108                 |
| February 2021        | 30.6         | 21.3         | 78        | 3.9                       | 2                 | 197                 |
| March 2021           | 34.6         | 23.2         | 79        | 3.3                       | 0                 | 0                   |
| <b>Total/Average</b> | <b>33.28</b> | <b>24.92</b> | <b>79</b> | <b>4.04</b>               | <b>56</b>         | <b>1771.7</b>       |

### 1.2.3 Nayagarh

| Month and Year | Temp. (°C) |       | RH (%) | No. of rainy days | Total rainfall (mm) |
|----------------|------------|-------|--------|-------------------|---------------------|
|                | Max.       | Mini. |        |                   |                     |
| April 2020     | 36         | 26    | 60.22  | 125.0             | 10                  |
| May 2020       | 36         | 27    | 69.12  | 35                | 05                  |
| June 2020      | 36         | 29    | 63.87  | 205.1             | 13                  |
| July 2020      | 33         | 28    | 72.68  | 235.1             | 15                  |
| August 2020    | 32         | 26    | 77.80  | 272.1             | 20                  |
| September 2020 | 33         | 27    | 80.65  | 210.1             | 09                  |
| October 2020   | 31         | 25    | 75.22  | 242.0             | 12                  |
| November 2020  | 30         | 22    | 61.15  | 0                 | 0                   |
| December 2020  | 30         | 21    | 60.88  | 0                 | 0                   |
| January 2021   | 31         | 20    | 65.32  | 0                 | 0                   |

|                        |              |              |              |               |           |
|------------------------|--------------|--------------|--------------|---------------|-----------|
| February 2021          | 33           | 20           | 62.78        | 0             | 0         |
| March 2021             | 38           | 24           | 59.14        | 21.0          | 01        |
| <b>Total / Average</b> | <b>33.25</b> | <b>24.58</b> | <b>67.40</b> | <b>1345.4</b> | <b>85</b> |

#### 1.2.4 Nellikuppam

| Month and Year         | Temperature ( C ) |             | Relative Humidity |             | Rainfall      | No. of Rainy |
|------------------------|-------------------|-------------|-------------------|-------------|---------------|--------------|
|                        | Min               | Max         | AM                | PM          | mm            | Days         |
| January, 2020          | 21.2              | 31.4        | 92.4              | 72.2        | 23.0          | 2            |
| February, 2020         | 21.1              | 32.4        | 90.9              | 66.4        | 2.0           | 1            |
| March, 2020            | 22.5              | 34.0        | 92.1              | 68.2        |               |              |
| April, 2020            | 25.1              | 35.9        | 90.1              | 71.2        | 5.8           | 2            |
| May, 2020              | 26.7              | 37.9        | 83.9              | 70.5        | 8.8           | 2            |
| June, 2020             | 26.4              | 37.9        | 78.3              | 63.2        | 25.4          | 2            |
| July, 2020             | 25.2              | 35.2        | 88.1              | 71.6        | 119.8         | 6            |
| August, 2020           | 25.4              | 35.5        | 87.0              | 69.8        | 227.8         | 6            |
| September, 2020        | 24.9              | 34.2        | 90.0              | 73.8        | 178.0         | 9            |
| October, 2020          | 24.4              | 33.6        | 92.6              | 73.5        | 181.6         | 10           |
| November, 2020         | 22.3              | 30.7        | 80.9              | 81.0        | 550.4         | 12           |
| December, 2020         | 21.7              | 28.2        | 96.2              | 83.2        | 479.0         | 13           |
| <b>Total / Average</b> | <b>23.9</b>       | <b>33.9</b> | <b>88.5</b>       | <b>72.1</b> | <b>1801.6</b> | <b>65</b>    |

#### 1.2.5 Vuyyuru

| Month and year         | Temperature (°c) |              | Average relative humidity (%) | Rainfall (mm) |
|------------------------|------------------|--------------|-------------------------------|---------------|
|                        | Max.             | Min.         |                               |               |
| January, 2020          | 33               | 20           | 82                            | 10.6          |
| February, 2020         | 34               | 21           | 78                            | 21.8          |
| March, 2020            | 34               | 21           | 78                            | 21.8          |
| March 2020             | 36               | 23           | 78                            | 8.9           |
| April, 2020            | 36               | 23           | 82                            | 31.3          |
| May, 2020              | 43               | 27           | 79                            | 3.8           |
| June, 2020             | 41               | 25           | 78                            | 126.7         |
| July, 2020             | 36               | 25           | 85                            | 302.4         |
| August, 2020           | 35               | 24           | 84                            | 186.8         |
| September, 2020        | 36               | 24           | 83                            | 231.2         |
| October, 2020          | 34               | 24           | 84                            | 293.5         |
| November, 2020         | 34               | 21           | 83                            | 142.5         |
| December, 20120        | 30               | 19           | 81                            | 0.6           |
| <b>Average / Total</b> | <b>35.53</b>     | <b>22.85</b> | <b>81.15</b>                  | <b>1381.9</b> |

### 1.3 North West Zone

#### 1.3.1 Faridkot

| Months/ Weeks | Temperature (°C) |      | R.H. (%) |      | Rainfall (mm) | No. of rainy days |
|---------------|------------------|------|----------|------|---------------|-------------------|
|               | Max.             | Min. | Max.     | Min. |               |                   |
| February 2020 | 22.3             | 8.0  | 91       | 47   | 0.0           | 0.0               |

|                        |              |              |              |              |              |           |
|------------------------|--------------|--------------|--------------|--------------|--------------|-----------|
| March 2020             | 24.5         | 12.8         | 90           | 53           | 58.4         | 5.0       |
| April 2020             | 32.9         | 17.6         | 70           | 30           | 7.0          | 1.0       |
| May 2020               | 38.3         | 22.2         | 58           | 30           | 31.2         | 4.0       |
| June 2020              | 37.7         | 26.8         | 67           | 44           | 16.0         | 3.0       |
| July 2020              | 35.1         | 27.1         | 82           | 60           | 223.1        | 6.0       |
| August 2020            | 34.6         | 27.3         | 85           | 67           | 166.4        | 7.0       |
| September 2020         | 34.6         | 25.1         | 86           | 59           | 119.7        | 3.0       |
| October 2020           | 33.7         | 15.2         | 87           | 28           | 0.0          | 0.0       |
| November 2020          | 25.9         | 8.6          | 88           | 34           | 4.6          | 1.0       |
| December 2020          | 20.4         | 6.4          | 94           | 47           | 2.8          | 1.0       |
| January 2021           | 16.8         | 6.2          | 95           | 64           | 1.0          | 2.0       |
| February 2021          | 24.3         | 9.6          | 92           | 49           | 0.0          | 0.0       |
| March 2021             | 29.5         | 14.9         | 80           | 38           | 10.2         | 3.0       |
| <b>Average / Total</b> | <b>29.33</b> | <b>16.27</b> | <b>83.21</b> | <b>46.43</b> | <b>640.4</b> | <b>36</b> |

### 1.3.2 Lucknow

| Month and year         | Temperature (°C) |              | Relative Humidity (%) |             | Rainfall all (mm) | Rainy days (No.) | Bright sun shine hours /day) | Evaporation (mm/day) | Wind Speed (km/hr) |
|------------------------|------------------|--------------|-----------------------|-------------|-------------------|------------------|------------------------------|----------------------|--------------------|
|                        | Max.             | Min.         | AM                    | PM          |                   |                  |                              |                      |                    |
| April, 2020            | 35.5             | 19.5         | 76.2                  | 31.8        | 14.0              | 2.0              | 9.3                          | 5.8                  | 3.2                |
| May, 2020              | 37.4             | 22.8         | 73.6                  | 39.6        | 79.8              | 5.0              | 9.1                          | 6.4                  | 2.8                |
| June, 2020             | 34.4             | 25.4         | 86.7                  | 65.5        | 52.2              | 8.0              | 5.7                          | 3.9                  | 2.2                |
| July, 2020             | 34.2             | 26.0         | 92.3                  | 74.5        | 264.6             | 12.0             | 4.5                          | 3.1                  | 2.3                |
| August, 2020           | 33.8             | 26.0         | 92.2                  | 72.6        | 269.2             | 9.0              | 5.9                          | 3.2                  | 2.4                |
| September, 2020        | 35.0             | 25.5         | 91.4                  | 62.7        | 159.2             | 6.0              | 6.3                          | 3.4                  | 2.1                |
| October, 2020          | 34.3             | 18.3         | 94.4                  | 39.7        | 0.0               | 0.0              | 7.6                          | 3.0                  | 1.2                |
| November, 2020         | 28.4             | 10.8         | 93.9                  | 37.4        | 32.0              | 1.0              | 6.9                          | 2.1                  | 1.4                |
| December, 2020         | 23.7             | 7.3          | 92.8                  | 45.3        | 0.0               | 0.0              | 5.6                          | 1.3                  | 1.5                |
| January,2021           | 20.7             | 7.4          | 95.6                  | 53.7        | 0.0               | 0.0              | 4.2                          | 1.2                  | 1.8                |
| February,2021          | 27.6             | 10.3         | 93.0                  | 34.8        | 5.8               | 1.0              | 7.6                          | 2.7                  | 2.5                |
| March, 2021            | 33.6             | 16.6         | 76.9                  | 21.9        | 1.2               | 0.0              | 8.0                          | 5.5                  | 4.5                |
| <b>Average / Total</b> | <b>31.55</b>     | <b>17.99</b> | <b>88.25</b>          | <b>48.3</b> | <b>878</b>        | <b>44</b>        | <b>6.73</b>                  | <b>3.47</b>          | <b>2.33</b>        |

### 1.3.3 Muzaffarnagar

| Month and Year | Temperature (C°) |      | Humidity % |    | Total rainfall (mm) | No. of rainy days |
|----------------|------------------|------|------------|----|---------------------|-------------------|
|                | Max.             | Min. | AM         | PM |                     |                   |
| April ,2020    | 32.6             | 17.7 | 64         | 36 | 33.8                | 3                 |
| May,2020       | 35.6             | 21.4 | 64         | 41 | 53.4                | 7                 |
| June,2020      | 35.3             | 24.5 | 78         | 54 | 87.6                | 6                 |
| July,2020      | 33.0             | 23.9 | 89         | 68 | 324.8               | 12                |

|                        |              |              |              |              |               |           |
|------------------------|--------------|--------------|--------------|--------------|---------------|-----------|
| August,2020            | 32.5         | 24.7         | 90           | 72           | 240.0         | 12        |
| Sept,2020              | 34.1         | 23.8         | 87           | 62           | 224.0         | 6         |
| Oct,2020               | 32.6         | 15.2         | 76           | 37           | -             | -         |
| Nov,2020               | 26.2         | 9.2          | 78           | 49           | 3.0           | 1         |
| Dec,2020               | 20.7         | 6.5          | 90           | 56           | 1.0           | 1         |
| Jan,2021               | 18.5         | 7.2          | 94           | 65           | 29.0          | 3         |
| Feb,2021               | 25.5         | 9.3          | 90           | 41           | 6.0           | 2         |
| March,2021             | 30.9         | 14.7         | 71           | 33           | -             | -         |
| <b>Average / Total</b> | <b>29.79</b> | <b>16.51</b> | <b>80.92</b> | <b>51.16</b> | <b>1002.6</b> | <b>53</b> |

### 1.3.4 Pantnagar

| Months and Year        | Temperature (°C) |             | Relative humidity (%) |              | Rainfall (mm) | No. of Rainy days | No. of sun shine hours |
|------------------------|------------------|-------------|-----------------------|--------------|---------------|-------------------|------------------------|
|                        | Max.             | Min.        | AM                    | PM           |               |                   |                        |
| Jan 2020               | 17.6             | 8.1         | 94                    | 72           | 118.2         | 07                | 3.5                    |
| Feb 2020               | 22.1             | 8.1         | 95                    | 56           | 23.2          | 02                | 6.6                    |
| March 2020             | 26.9             | 17.9        | 88                    | 47           | 46.1          | 04                | 8.1                    |
| April 2020             | 33.6             | 17.2        | 68                    | 33           | 70.8          | 01                | 8.3                    |
| May 2020               | 35.2             | 20.8        | 69                    | 40           | 61.1          | 4                 | 9.7                    |
| June 2020              | 33.5             | 25.2        | 80                    | 59           | 222.4         | 10                | 6.4                    |
| July 2020              | 32.4             | 25.8        | 89                    | 72           | 402.7         | 14                | 4.7                    |
| Aug 2020               | 32.2             | 26.2        | 89                    | 73           | 249.5         | 13                | 4.6                    |
| Sept 2020              | 33.7             | 24.7        | 90                    | 63           | 56.3          | 4                 | 7.4                    |
| Oct 2020               | 33.1             | 17.3        | 87                    | 46           | 0.0           | 0                 | 8.0                    |
| Nov 2020               | 27.2             | 10.5        | 92                    | 39           | 0.0           | 0                 | 6.4                    |
| Dec 2020               | 21.1             | 7.0         | 95                    | 58           | 2.5           | 1                 | 4.8                    |
| <b>Average / Total</b> | <b>29.05</b>     | <b>17.4</b> | <b>86.33</b>          | <b>54.83</b> | <b>1252.8</b> | <b>60</b>         | <b>6.54</b>            |

### 1.3.5 Shahjahanpur

| Month and year         | Temperature°C |              | Relative humidity % |              | Rain fall (mm) | No. of rainy days |
|------------------------|---------------|--------------|---------------------|--------------|----------------|-------------------|
|                        | Max.          | Min.         | AM                  | PM           |                |                   |
| April 2020             | 35            | 19.9         | 69                  | 38           | 37             | 2                 |
| May 2020               | 36.6          | 22.6         | 69                  | 49           | 30             | 5                 |
| June 2020              | 35.5          | 25.3         | 81                  | 57           | 30             | 7                 |
| July 2020              | 33.3          | 25.8         | 92                  | 69           | 431            | 14                |
| August 2020            | 33.2          | 26.1         | 89                  | 69           | 93             | 9                 |
| September 2020         | 34.7          | 25.3         | 88                  | 61           | 26.4           | 4                 |
| October 2020           | 35.9          | 17.1         | 81                  | 57           | NIL            | -                 |
| November 2020          | 27.7          | 10.8         | 82                  | 58           | 11.4           | 1                 |
| December 2020          | 21.9          | 7.7          | 90                  | 59           | NIL            | -                 |
| January 2021           | 19.2          | 8.3          | 95                  | 57           | 22             | 1                 |
| February 2021          | 26.8          | 10.9         | 85                  | 48           | 0.6            | 1                 |
| March 2021             | 32.6          | 17.1         | 75                  | 41           | NIL            | -                 |
| <b>Average / Total</b> | <b>31.03</b>  | <b>18.08</b> | <b>83</b>           | <b>55.25</b> | <b>681.4</b>   | <b>44</b>         |

## 1.4 North East and North Central Zone

### 1.4.1 Buralikson

| Month and Year         | Av. Max Temp (°C) | Average RH   | Total rainfall (mm) | Rainy days |
|------------------------|-------------------|--------------|---------------------|------------|
| March, 2020            | 27.08             | 75.86        | 1.50                | 2          |
| April, 2020            | 30.49             | 72.00        | 112.40              | 12         |
| May, 2020              | 29.88             | 79.21        | 311.80              | 19         |
| June, 2020             | 30.80             | 78.18        | 163.50              | 24         |
| July, 2020             | 30.59             | 78.10        | 296.10              | 22         |
| August, 2020           | 32.61             | 82.11        | 332.40              | 18         |
| September, 2020        | 30.53             | 84.90        | 235.80              | 19         |
| October, 2020          | 31.39             | 81.33        | 143.00              | 9          |
| November, 2020         | 28.94             | 77.13        | 13.60               | 4          |
| December, 2020         | 26.45             | 73.34        | 4.20                | 1          |
| January, 2021          | 23.97             | 79.33        | 24.60               | 4          |
| February, 2021         | 26.70             | 73.73        | 0.60                | 2          |
| <b>Average / Total</b> | <b>29.12</b>      | <b>77.94</b> | <b>1639.5</b>       | <b>136</b> |

### 1.4.2 Pusa

| Month and Year         | Temperature (°c) |              | R.H %        |              | Rainfall (mm) | No. of rainy days |
|------------------------|------------------|--------------|--------------|--------------|---------------|-------------------|
|                        | Max              | Min          | AM           | PM           |               |                   |
| April 2020             | 33.8             | 19.9         | 84           | 63           | 143.8         | 05                |
| May 2020               | 33.2             | 21.5         | 85           | 71           | 106.0         | 08                |
| June 2020              | 32.1             | 19.6         | 90           | 81           | 288.6         | 15                |
| July 2020              | 32.3             | 21.1         | 92           | 85           | 646.8         | 21                |
| August 2020            | 33.1             | 24.7         | 91           | 82           | 154.8         | 11                |
| September 2020         | 32.4             | 25.8         | 92           | 84           | 233.4         | 14                |
| October 2020           | 33.1             | 24.3         | 88           | 70           | 0.0           | 00                |
| November 2020          | 28.7             | 16.0         | 86           | 56           | 0.0           | 00                |
| December 2020          | 22.5             | 10.2         | 95           | 71           | 0.0           | 00                |
| January 2021           | 19.3             | 9.4          | 95           | 75           | 0.0           | 00                |
| February 2021          | 26.0             | 12.0         | 91           | 63           | 0.0           | 00                |
| March 2021             | 31.7             | 17.4         | 87           | 53           | 0.0           | 00                |
| <b>Average / Total</b> | <b>29.85</b>     | <b>18.49</b> | <b>89.67</b> | <b>71.17</b> | <b>1573.4</b> | <b>74</b>         |





## 2. Peninsular Zone

Peninsular zone comprises of the states of Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Tamil Nadu and Telangana.

| State          | Centres   |
|----------------|---|
| Andhra Pradesh | Perumalapalle   |
| Chhattisgarh   | Kawardha  |
| Gujarat        | Navsari   |
| Karnataka      | Mandya, Sankeshwar, Sameerwadi, Belgaum                     |
| Kerala         | Thiruvalla  |
| Madhya Pradesh | Powarkheda  |
| Maharashtra    | Akola, Basmathnagar, Kolhapur, Padegaon, Pune, Pravaranagar |
| Tamil Nadu     | Coimbatore, Pugalur, Sirugamani                             |
| Telangana      | Rudrur  |

### List of trials conducted during 2019-20

| Sl.No. | Location           | AVT II Plant | AVT Ratoon | AVT I Plant | IVT |
|--------|--------------------|--------------|------------|-------------|-----|
| 1      | Akola              | NC           | NC         | NC          | C   |
| 2      | Basmathnagar       | C            | C          | C           | C   |
| 3      | Belgaum (Belagavi) | NC           | NC         | C           | C   |
| 4      | Coimbatore         | C            | C          | C           | C   |
| 5      | Kawardha           | NC           | NC         | C           | C   |
| 6      | Kolhapur           | C            | C          | C           | C   |
| 7      | Mandya             | C            | C          | C           | C   |
| 8      | Navsari            | C            | C          | C           | C   |
| 9      | Padegaon           | C            | C          | C           | C   |
| 10     | Powarkheda         | NC           | NC         | NC          | NC  |
| 11     | Pravaranagar       | C            | C          | C           | C   |
| 12     | Pune               | C            | C          | C           | C   |
| 13     | Pugalur            | C            | NC         | C           | C   |
| 14     | Perumalapalle      | C            | C          | C           | C   |
| 15     | Rudrur             | C            | C          | C           | C   |
| 16     | Sankeshwar         | C            | C          | C           | C   |
| 17     | Sameerwadi         | C            | C          | C           | C   |
| 18     | Sirugamani         | NC           | NC         | NC          | NC  |
| 19     | Thiruvalla         | C            | C          | C           | C   |

C –Conducted    NC-Not conducted    C#: Vitiated due to drought    C\*Trials Failed

## 2.1. Advanced Varietal Trial II Plant (2020-21)

|  |  |
|--|--|
| Centers where trial was conducted (14) | Coimbatore, Basmathnagar, Kolhapur, Mandya, Navasari, Pedegon, Perumalapalle, Pravaranagar, Pugalur, Pune, Rudrur, Sameerwadi, Sankeshwar and Thiruvalla         |
| Entries (15)                           | Co 14002, Co 14004, Co 14012, Co 14016, Co 14027, Co 14030, Co 14032, CoN 14073, CoSnK 14102, CoSnK 14103, CoT 14367, CoTI 14111, CoVC 14062, MS 14081, MS 14082 |
| Standards (3)                          | Co 86032, CoC 671 and CoSnk 05103  |
| Design                                 | RBD  |
| Replications                           | Three  |
| Plot size                              | 6 m x 8 rows x 1.2 m (Gross)<br>5 m x 6 rows x 1.2 m (Net)   |
| Seed rate                              | 12 buds per meter  |
| Planting time                          | December- January  |
| Crop duration                          | 12 months  |

**Results of the previous year:** Fifteen clones were evaluated along with three standards (Co 86032, CoC 671 and CoSnk 05103) at 14 centres during 2019-20. Akola, Kawardha, Powerkheda, and Sirugamani centres did not conduct the trial. Four test entries *viz.*, MS 14082 (16.24 t/ha), CoTI 14111 (15.60 t/ha), CoN 14073 (15.49 t/ha) and Co 14016 (15.27 t/ha) recorded higher sugar yield than the best standard Co 86032 (15.25 t/ha) in the zone. MS 14082 and CoTI 14111 recorded more than 10% improvement for sugar yield over the best standard at four and three locations respectively. Four entries *viz.*, CoN 14073 (123.62 t/ha), MS 14082 (122.73 t/ha), CoTI 14111 (117.30 t/ha), and Co 14016 (114.63 t/ha) had higher cane yield than the best check Co 86032 (114.39 t/ha). The entry MS 14082 recorded more than 10% improvement for cane yield over the best standard at six locations followed by Co 14002, CoN 14073 and CoTI 14111 at five locations each. None of the entries recorded more than 10% improvement over the best standard for mean CCS yield and cane yield across the locations. None of the entries recorded higher CCS % and sucrose per cent than the best standard CoC 671 (14.38% and 20.31% respectively) in this trial. The test entries Co 14032 and Co 14012 ranked as second and third respectively in the zone for CCS% (13.79% and 13.73% respectively) and sucrose per cent (19.58% and 19.48% respectively). No qualifying entry was identified in the zone

### Results of the current year:

Fifteen clones were evaluated along with three standards (Co 86032, CoC 671 and CoSnk 05103) at 14 centres during 2020-21. Akola, Kawardha, Powerkheda, and Sirugamani centres did not conduct the trial. MS 14082 was the best test entry (18.38 t/ha) for CCS yield and

ranked first across the zone and Co 86032 was the best standard (17.06 t/ha). No entry was qualified in this zone, however the entry Co 14027 and MS 14082 recorded more than 10 % CCS yield over Co 86032 in four locations, followed by Co 14016, CoN 14073 in three locations. For cane yield MS 14082 was the best test entry (138.04 t/ha), followed by CoN 14073 (131.82 t/ha) and both recorded numerically superior performance compared to best standard. MS 14082 recorded > 10% improvement over the best standard for cane yield in this zone. Co 14016, CoT1 14111 and CoN 14073 recorded >10 % improvement over the best standard for cane yield at three locations each. None of the entries recorded higher CCS % in the zone over the best standard CoC 671 (14.47). The entry Co 14012 (14.05 %) ranked second followed by Co 14004 (13.79 %). None of the entries recorded higher sucrose % in the zone over the best standard CoC 671 (20.36). Among the entries 14012 (19.91 %) ranked first followed by 14032 (19.52%). However the entries Co 14032 and Co 14012 recorded > 5 % improvement over the best standard at one of the locations in the zone.

**Table 2.1.1 CCS t/ha at harvest**

| Sl. No.  | Entries           | Coimbatore   | Basmat hnagar | Kolhapur     | Mandya       | Navasari     | Pedegon      | Perumal apalle | Pravar anagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sankes hwar  | Thiruvalla   | Mean         | Rank     |
|--|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------|
| 1  | Co 14002          | 18.18        | 14.88         | 16.49        | 13.01        | 15.58        | 18.46        | 14.00          | 17.53         | 13.46        | 23.21*       | 14.89        | 6.76         | 24.73        | 13.06        | <b>16.02</b> |          |
| 2  | Co 14004          | 14.76        | 12.71         | 12.95        | 13.19        | 18.62*       | 23.68        | 16.49          | 18.96         | 10.30        | 20.47        | 13.53        | 10.25        | 21.60        | 11.18        | <b>15.62</b> |          |
| 3  | Co 14012          | 15.17        | 13.80         | 18.84        | 10.61        | 16.85        | 16.88        | 17.53          | 22.37         | 12.23        | 21.04*       | 13.18        | 10.42        | 18.56        | 13.65        | <b>15.79</b> |          |
| 4  | Co 14016          | 19.49        | 14.79         | 12.18        | 14.57        | 18.52        | 21.28        | 17.30          | 20.36         | 16.74        | 23.01*       | 15.70        | 11.56        | 11.83        | 11.90        | <b>16.37</b> | <b>4</b> |
| 5  | Co 14027          | 19.33        | 13.72         | 14.17        | 13.86        | 18.75*       | 16.14        | 24.73          | 21.01         | 16.43        | 15.78        | 15.88        | 13.94        | 15.23        | 9.30         | <b>16.31</b> | <b>5</b> |
| 6  | Co 14030          | 13.80        | 15.02         | 16.03        | 11.09        | 16.39        | 17.07        | 19.51          | 21.77         | 13.00        | 19.06        | 15.89        | 9.28         | 12.07        | 12.47        | <b>15.18</b> |          |
| 7  | Co 14032          | 13.80        | 13.38         | 13.27        | 13.23        | 13.91        | 19.67        | 19.90          | 17.62         | 11.38        | 18.31        | 14.13        | 9.82         | 20.37        | 10.38        | <b>14.94</b> |          |
| 8  | CoN 14073         | 16.40        | 18.09         | 12.98        | 16.05        | 19.53*       | 17.36        | 21.61          | 16.34         | 15.89        | 21.49*       | 16.31        | 10.60        | 16.69        | 12.13        | <b>16.53</b> | <b>3</b> |
| 9  | CoSnK 14102       | 17.79        | 14.32         | 12.28        | 12.98        | 14.87        | 15.97        | 16.37          | 16.04         | 14.75        | 18.27        | 13.82        | 10.95        | 14.67        | 10.53        | <b>14.54</b> |          |
| 10   | CoSnK 14103       | 15.59        | 14.56         | 12.46        | 10.49        | 14.26        | 12.46        | 20.83          | 18.86         | 10.77        | 9.82         | 14.56        | 11.87        | 16.30        | 10.30        | <b>13.80</b> |          |
| 11   | CoT 14367         | 12.32        | 11.48         | 12.67        | 9.39         | 11.28        | 13.28        | 18.83          | 19.41         | 12.16        | 12.65        | 12.66        | 11.33        | 16.20        | 13.62        | <b>13.38</b> |          |
| 12   | CoTI 14111        | 17.38        | 13.34         | 18.34        | 12.67        | 14.81        | 19.55        | 19.56          | 18.01         | 14.07        | 19.54        | 15.74        | 8.04         | 16.59        | 11.34        | <b>15.64</b> |          |
| 13   | CoVC 14062        | 14.08        | 14.59         | 14.43        | 14.53        | 14.88        | 16.57        | 20.49          | 19.29         | 14.50        | 17.68        | 17.05*       | 10.99        | 17.80        | 13.19        | <b>15.72</b> |          |
| 14   | MS 14081          | 16.42        | 11.43         | 16.75        | 13.91        | 11.58        | 19.32        | 15.22          | 20.57         | 9.26         | 20.47        | 14.37        | 10.84        | 24.58        | 9.94         | <b>15.33</b> |          |
| 15   | MS 14082          | 20.38        | 17.84         | 16.73        | 15.36        | 18.46*       | 23.08        | 23.05          | 19.01         | 15.60        | 22.41*       | 20.80*       | 12.29        | 18.39        | 13.93        | <b>18.38</b> | <b>1</b> |
|  | Standards         |              |               |              |              |              |              |                |               |              |              |              |              |              |              |              |          |
| 1  | Co 86032          | 16.24        | 16.41         | 15.98        | 15.50        | 14.20        | 23.44        | 22.29          | 22.50         | 16.27        | 17.72        | 13.97        | 12.54        | 18.89        | 12.94        | <b>17.06</b> | <b>2</b> |
| 2  | CoC 671           | 17.77        | 14.49         | 13.44        | 13.59        | 14.43        | 17.49        | 17.84          | 21.56         | 16.71        | 18.64        | 13.36        | 12.57        | 21.94        | 13.51        | <b>16.24</b> |          |
| 3  | CoSnk 05103       | 19.40        | 14.12         | 13.58        | 13.91        | 15.92        | 15.11        | 20.83          | 17.53         | 13.89        | 14.92        | 14.07        | 9.21         | 19.68        | 10.98        | <b>15.22</b> |          |
|  | <b>Grand Mean</b> | <b>16.57</b> | <b>14.39</b>  | <b>14.64</b> | <b>13.22</b> | <b>15.71</b> | <b>18.16</b> | <b>19.24</b>   | <b>19.37</b>  | <b>13.74</b> | <b>18.58</b> | <b>15.00</b> | <b>11.44</b> | <b>18.12</b> | <b>11.91</b> | <b>15.72</b> |          |
|  | SE(m)             | 0.34         | 0.93          | 1.20         | 0.77         | 0.69         | 1.47         | 0.98           | 0.41          | 0.85         | 0.71         | 0.84         | 1.07         | 1.91         | 0.72         |              |          |
|  | CD                | 3.08         | 2.67          | 3.45         | 2.22         | 1.98         | 4.23         | 2.82           | 1.19          | 2.43         | 2.04         | 2.40         | 3.09         | 5.70         | 2.05         |              |          |
|  | CV                | 11.16        | 11.19         | 14.19        | 10.14        | 7.58         | 14.05        | 8.82           | 3.71          | 10.66        | 6.60         | 9.65         | 17.28        | 14.90        | 10.50        |              |          |
| <b>Top three qualifying entries at each centre</b> |                   |              |               |              |              |              |              |                |               |              |              |              |              |              |              |              |          |
| 1  |                   |              | CoN 14073     | Co 14012     |              | CoN 14073    |              | Co 14027       |               |              | Co 14002     | MS 14082     | Co 14027     | Co 14002     |              |              |          |
| 2  |                   |              |               | CoTI 14111   | Co 14027     | Co 14027     |              |                |               |              | Co 14016     | CoVC 14062   |              | MS 14081     |              |              |          |
| 3  |                   |              |               |              | Co 14016     | Co 14016     |              |                |               |              | MS 14082     | CoN 14073    |              |              |              |              |          |

\* Significant over the best standard at 5 %;

**Qualifying entries:** Co 14027 (4), MS 14082 (4), Co 14016 (3), CoN 14073 (3), Co 14002 (2), Co 14012 (2), CoTI 14111 (2), Co 14030 (1) CoVC 14062 (1) MS 14081 (1)

**Performance of entries:** MS 14082 was the best test entry (18.38 t/ha) ranked first, and Co 86032 was the best standard (17.06 t/ha). No entry was qualified in this zone, however the entry Co 14027 and MS 14082 recorded more than 10 % CCS yield over Co 86032 in four locations each, followed by Co 14016, CoN 14073 in three locations each, and Co 14002, Co 14012, and CoTI 14111 in two locations each.

**Table 2.1.2 Cane yield t/ha at harvest**

| Sl. No.  | Entries           | Coimbatore    | Basmatnagar   | Kolhapur      | Mandya       | Navasari      | Pedeagon      | Perumal apalle | Pravar anagar | Pugalur       | Pune          | Rudrur        | Sameer wadi  | Sankes hwar   | Thiruvalla   | Mean          | Rank     |
|--|-------------------|---------------|---------------|---------------|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|--------------|---------------|--------------|---------------|----------|
| 1  | Co 14002          | 133.63        | 121.92        | 126.43        | 94.93        | 115.63        | 121.55        | 112.95         | 126.46        | 130.80        | 151.29*       | 109.63        | 49.98        | 166.35        | 97.80        | <b>118.52</b> |          |
| 2  | Co 14004          | 104.59        | 103.31        | 105.58        | 89.79        | 121.93        | 149.68        | 129.72         | 123.39        | 102.88        | 125.40        | 100.96        | 76.07        | 145.00        | 99.60        | <b>112.71</b> |          |
| 3  | Co 14012          | 112.51        | 106.69        | 138.08        | 73.89        | 110.93        | 93.80         | 136.87         | 139.89        | 121.68        | 131.54        | 94.45         | 80.72        | 119.43        | 98.73        | <b>111.37</b> |          |
| 4  | Co 14016          | 146.80        | 121.67        | 91.37         | 101.04       | 128.37*       | 142.00        | 149.11         | 145.03        | 166.68        | 152.08*       | 125.11        | 90.43        | 84.45         | 98.15        | <b>124.45</b> | <b>4</b> |
| 5  | Co 14027          | 143.29        | 109.46        | 106.48        | 97.36        | 122.97        | 107.48        | 192.69         | 144.64        | 147.39        | 109.94        | 113.88        | 100.02       | 104.45        | 83.97        | <b>120.29</b> | <b>6</b> |
| 6  | Co 14030          | 99.44         | 111.79        | 126.27        | 75.69        | 108.33        | 116.88        | 166.70         | 139.93        | 130.41        | 122.36        | 118.67        | 72.31        | 79.60         | 100.29       | <b>112.05</b> |          |
| 7  | Co 14032          | 93.81         | 112.56        | 95.64         | 89.10        | 94.28         | 131.81        | 165.15         | 109.18        | 103.40        | 119.84        | 105.62        | 84.34        | 130.80        | 85.65        | <b>108.66</b> |          |
| 8  | CoN 14073         | 137.53        | 135.31        | 119.55        | 117.15       | 142.31*       | 113.79        | 177.19         | 115.35        | 164.50        | 157.32*       | 136.69*       | 91.31        | 129.80        | 107.75       | <b>131.82</b> | <b>2</b> |
| 9  | CoSnK 14102       | 143.01        | 113.79        | 95.34         | 95.42        | 104.62        | 112.80        | 138.04         | 122.39        | 139.81        | 127.69        | 110.07        | 90.21        | 117.40        | 90.10        | <b>114.33</b> |          |
| 10   | CoSnK 14103       | 118.21        | 110.64        | 110.24        | 77.85        | 105.39        | 82.04         | 172.28         | 130.96        | 104.82        | 74.55         | 105.10        | 99.08        | 126.05        | 91.61        | <b>107.77</b> |          |
| 11   | CoT 14367         | 99.13         | 100.16        | 106.11        | 73.75        | 84.03         | 96.00         | 151.51         | 137.53        | 120.77        | 95.77         | 105.45        | 95.44        | 146.05        | 112.15       | <b>108.85</b> |          |
| 12   | CoT 14111         | 136.70        | 106.09        | 140.02*       | 95.69        | 112.26        | 110.24        | 157.98         | 124.03        | 137.36        | 148.55*       | 134.22*       | 67.77        | 131.50        | 93.75        | <b>121.15</b> | <b>5</b> |
| 13   | CoVC 14062        | 101.64        | 114.40        | 111.42        | 102.01       | 102.62        | 113.29        | 163.22         | 129.02        | 144.30        | 116.26        | 131.97*       | 85.03        | 122.25        | 98.61        | <b>116.86</b> |          |
| 14   | MS 14081          | 124.00        | 94.99         | 123.58        | 93.33        | 84.93         | 137.01        | 123.93         | 136.28        | 96.84         | 136.05*       | 106.00        | 83.70        | 161.55        | 80.50        | <b>113.05</b> |          |
| 15   | MS 14082          | 162.53        | 139.67        | 132.63        | 110.69       | 130.95        | 158.64        | 184.22         | 133.03        | 153.56        | 146.05*       | 149.82*       | 96.49        | 127.95        | 106.37       | <b>138.04</b> | <b>1</b> |
|  | Standards         |               |               |               |              |               |               |                |               |               |               |               |              |               |              |               |          |
| 1  | Co 86032          | 123.37        | 129.75        | 115.62        | 112.36       | 97.95         | 147.88        | 175.75         | 156.23        | 144.30        | 126.44        | 96.31         | 93.76        | 132.55        | 101.33       | <b>125.26</b> | <b>3</b> |
| 2  | CoC 671           | 120.27        | 110.46        | 96.48         | 87.71        | 96.29         | 109.34        | 132.90         | 136.26        | 152.02        | 114.65        | 92.82         | 90.85        | 139.55        | 98.15        | <b>112.70</b> |          |
| 3  | CoSnK 05103       | 159.56        | 109.02        | 102.75        | 97.08        | 115.25        | 118.08        | 175.15         | 125.69        | 137.36        | 109.78        | 112.52        | 71.42        | 153.35        | 90.97        | <b>119.86</b> |          |
|  | <b>Grand Mean</b> | <b>125.56</b> | <b>113.98</b> | <b>113.53</b> | <b>93.60</b> | <b>109.95</b> | <b>120.13</b> | <b>155.85</b>  | <b>131.96</b> | <b>133.27</b> | <b>125.86</b> | <b>113.85</b> | <b>85.35</b> | <b>128.78</b> | <b>96.42</b> | <b>117.72</b> |          |
|  | SE(m)             | 7.16          | 6.28          | 8.05          | 4.41         | 3.89          | 9.29          | 7.73           | 2.19          | 7.17          | 4.46          | 6.01          | 7.84         | 12.96         | 4.83         |               |          |
|  | CD                | 20.66         | 18.04         | 23.14         | 12.69        | 11.19         | 26.70         | 22.22          | 6.31          | 20.60         | 12.81         | 17.27         | 22.62        | 38.66         | 13.72        |               |          |
|  | CV                | 9.87          | 9.54          | 12.28         | 8.17         | 6.14          | 13.51         | 8.59           | 2.88          | 9.32          | 6.13          | 9.14          | 16.08        | 14.23         | 8.67         |               |          |
| <b>Top three qualifying entries at each centre</b> |                   |               |               |               |              |               |               |                |               |               |               |               |              |               |              |               |          |
|  | <b>1</b>          |               |               | CoT 14111     |              | CoN 14073     |               |                |               |               | CoN 14073     | MS 14082      |              | Co 14002      | CoT 14367    |               |          |
|  | <b>2</b>          |               |               | Co 14012      |              | MS 14082      |               |                |               |               | Co 14016      | CoN 14073     |              | MS 14081      |              |               |          |
|  | <b>3</b>          |               |               | MS 14082      |              | Co 14016      |               |                |               |               | Co 14002      | CoT 14111     |              |               |              | MS 14082      |          |

\* Significant over the best standard at 5 %;

**Qualifying entries:** MS 14082 (4), Co 14016 (3), CoN 14073 (3), CoT 14111 (3), CoN 14073 (3), Co 14002 (1), CoT 14367 (1), CoVC 14062 (1) MS 14081(1)

**Performance of entries:** MS 14082 was the best entry (138.04 t/ha), followed by CoN 14073 (131.82 t/ha), Co 14012 (124.45 t/ha) and Co 86032 was the best standard (125.26 t/ha) for yield. MS 14082 recorded > 10% improvement over the best standard for cane yield across the locations and in four individual locations in this zone. However Co 14016, CoT 14111 and CoN 14073 recorded >10 % improvement over the best standard for cane yield at three locations each.

**Table 2.1.3 CCS % at harvest**

| Sl. No.                           | Entries           | Coimbatore   | Basmat Inagar | Kolhapur     | Mandya       | Navasari     | Pedegon      | Perumalalle  | Pravar anagar | Pugalur      | Pune         | Rudrur       | Sameer wadi  | Sankes hwar  | Thiruvalla   | Mean         | Rank |
|-----------------------------------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| 1                                 | Co 14002          | 13.62        | 12.23         | 13.04        | 13.68        | 13.48        | 15.39        | 12.39        | 13.85         | 10.28        | 15.33        | 13.56        | 13.45        | 14.90        | 13.33        | 13.47        |      |
| 2                                 | Co 14004          | 14.10        | 12.33         | 12.23        | 14.71        | 15.26        | 16.48        | 12.66        | 15.40         | 10.35        | 16.33        | 13.40        | 13.44        | 15.12        | 11.25        | 13.79        | 3    |
| 3                                 | Co 14012          | 13.48        | 12.93         | 13.61        | 14.37        | 15.20        | 16.34        | 12.82        | 16.00         | 9.77         | 16.01        | 13.95        | 12.94        | 15.52        | 13.82        | 14.05        | 2    |
| 4                                 | Co 14016          | 13.27        | 12.15         | 13.33        | 14.41        | 14.43        | 15.38        | 11.59        | 14.29         | 10.03        | 15.13        | 12.55        | 12.96        | 14.13        | 12.11        | 13.27        |      |
| 5                                 | Co 14027          | 13.49        | 12.59         | 13.28        | 14.24        | 15.22        | 14.82        | 12.82        | 14.71         | 11.16        | 14.34        | 13.95        | 13.97        | 14.55        | 11.05        | 13.58        |      |
| 6                                 | Co 14030          | 13.86        | 13.43         | 12.72        | 14.66        | 15.14        | 14.42        | 11.71        | 15.35         | 9.97         | 15.57        | 13.40        | 12.76        | 15.17        | 12.44        | 13.61        |      |
| 7                                 | Co 14032          | 14.72        | 11.85         | 13.87        | 14.84        | 14.74        | 15.74        | 12.08        | 16.06         | 11.01        | 15.31        | 13.37        | 11.62        | 15.62        | 12.09        | 13.78        | 4    |
| 8                                 | CoN 14073         | 11.93        | 13.34         | 10.76        | 13.63        | 13.71        | 14.71        | 12.22        | 14.43         | 9.47         | 13.66        | 11.93        | 11.51        | 12.86        | 11.26        | 12.53        |      |
| 9                                 | CoSnK 14102       | 12.44        | 12.59         | 12.88        | 13.62        | 14.23        | 14.36        | 11.86        | 13.56         | 10.28        | 14.31        | 12.56        | 12.31        | 12.50        | 11.69        | 12.80        |      |
| 10                                | CoSnK 14103       | 13.20        | 13.04         | 11.30        | 13.45        | 13.55        | 14.11        | 12.12        | 14.57         | 10.11        | 13.18        | 13.86        | 11.94        | 12.89        | 11.26        | 12.76        |      |
| 11                                | CoT 14367         | 12.42        | 11.47         | 11.95        | 12.74        | 13.39        | 14.81        | 12.45        | 14.03         | 10.04        | 13.26        | 12.01        | 11.87        | 11.19        | 12.13        | 12.41        |      |
| 12                                | CoT 14111         | 12.60        | 12.56         | 13.05        | 13.19        | 13.21        | 15.18        | 12.39        | 14.39         | 10.25        | 13.16        | 11.72        | 11.69        | 12.61        | 12.06        | 12.72        |      |
| 13                                | CoVC 14062        | 13.84        | 12.78         | 12.93        | 14.24        | 14.49        | 15.23        | 12.55        | 15.02         | 10.06        | 15.22        | 12.91        | 12.95        | 14.57        | 13.43        | 13.59        |      |
| 14                                | MS 14081          | 13.28        | 12.03         | 13.51        | 14.91        | 13.63        | 15.39        | 12.27        | 15.09         | 9.58         | 15.04        | 13.55        | 12.95        | 15.21        | 12.30        | 13.48        |      |
| 15                                | MS 14082          | 12.54        | 12.83         | 12.77        | 13.87        | 14.09        | 15.43        | 12.52        | 14.30         | 10.15        | 15.02        | 13.88        | 12.76        | 14.30        | 13.08        | 13.40        |      |
|                                   | Standards         |              |               |              |              |              |              |              |               |              |              |              |              |              |              |              |      |
| 1                                 | Co 86032          | 13.14        | 12.65         | 13.82        | 13.80        | 14.51        | 15.49        | 12.67        | 14.41         | 11.25        | 14.01        | 14.51        | 13.36        | 14.22        | 12.80        | 13.62        | 5    |
| 2                                 | CoC 671           | 14.81        | 13.10         | 13.94        | 15.50        | 15.00        | 16.03        | 13.41        | 15.82         | 10.97        | 16.25        | 14.38        | 13.88        | 15.77        | 13.77        | 14.47        | 1    |
| 3                                 | CoSnk 05103       | 12.18        | 12.94         | 13.23        | 14.36        | 13.81        | 14.47        | 11.89        | 13.94         | 10.08        | 13.59        | 12.51        | 12.88        | 12.86        | 12.06        | 12.91        |      |
|                                   | <b>Grand Mean</b> | <b>13.27</b> | <b>12.60</b>  | <b>12.90</b> | <b>14.12</b> | <b>14.28</b> | <b>15.21</b> | <b>12.36</b> | <b>14.73</b>  | <b>10.27</b> | <b>14.71</b> | <b>13.22</b> | <b>13.37</b> | <b>14.11</b> | <b>12.33</b> | <b>13.39</b> |      |
|                                   | SE(m)             | 0.34         | 1.45          | 0.43         | 0.36         | 0.34         | 0.39         | 0.27         | 0.24          | 0.16         | 0.20         | 0.09         | 0.52         | 0.52         | 0.35         |              |      |
|                                   | CD                | 0.98         | NS            | 1.23         | 1.02         | 0.97         | 1.11         | 0.78         | 0.69          | 0.46         | 0.58         | 0.27         | 1.51         | 1.55         | 0.99         |              |      |
|                                   | CV                | 4.43         | 2.89          | 5.74         | 4.37         | 4.08         | 4.35         | 3.80         | 2.85          | 2.72         | 2.39         | 1.24         | 7.12         | 5.21         | 4.90         |              |      |
| Qualifying entries at each centre |                   |              |               |              |              |              |              |              |               |              |              |              |              |              |              |              |      |
|                                   |                   |              |               |              |              |              |              |              |               |              |              |              |              |              |              |              |      |
|                                   |                   |              |               |              |              |              |              |              |               |              |              |              |              |              |              |              |      |
|                                   |                   |              |               |              |              |              |              |              |               |              |              |              |              |              |              |              |      |

Qualifying entries: Nil

Performance of entries: None of the entries recorded higher CCS % in the zone over the best standard CoC 671 (14.47 %). The entry Co 14012 (14.05 %) ranked second followed by Co 14004 (13.79 %).





**Table 2.1.5 Brix % at harvest**

| Sl. No. | Entries           | Coimbatore   | Basmat hnagar | Kolhapur     | Mandya       | Navasari     | Pedagon      | Perumala palle | Pravaranagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sankeshwar   | Thiruvalla   | Mean         |
|---------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1       | Co 14002          | 21.03        | 21.00         | 22.17        | 20.47        | 21.64        | 22.98        | 19.87          | 22.54        | 17.13        | 23.13        | 20.73        | 21.24        | 23.52        | 21.17        | 21.33        |
| 2       | Co 14004          | 21.46        | 20.35         | 23.03        | 22.00        | 22.78        | 23.83        | 20.17          | 22.88        | 16.51        | 23.28        | 20.47        | 21.58        | 24.02        | 17.83        | 21.44        |
| 3       | Co 14012          | 21.00        | 20.49         | 23.23        | 21.40        | 22.70        | 24.21        | 20.53          | 23.48        | 16.29        | 23.08        | 21.00        | 20.97        | 24.02        | 21.80        | 21.73        |
| 4       | Co 14016          | 20.54        | 20.83         | 22.70        | 21.60        | 22.20        | 23.03        | 18.40          | 21.61        | 16.29        | 22.53        | 19.53        | 20.86        | 22.76        | 19.17        | 20.86        |
| 5       | Co 14027          | 21.37        | 21.79         | 23.03        | 21.07        | 22.67        | 22.81        | 20.43          | 22.08        | 17.63        | 21.81        | 21.07        | 22.40        | 23.02        | 17.50        | 21.33        |
| 6       | Co 14030          | 21.58        | 22.00         | 22.13        | 21.80        | 22.78        | 23.23        | 18.50          | 22.21        | 16.23        | 22.52        | 20.53        | 20.79        | 23.77        | 19.77        | 21.27        |
| 7       | Co 14032          | 22.75        | 18.87         | 23.20        | 22.00        | 22.57        | 23.96        | 19.30          | 23.88        | 18.66        | 23.12        | 20.07        | 19.04        | 24.77        | 19.17        | 21.53        |
| 8       | CoN 14073         | 19.55        | 21.16         | 20.13        | 20.20        | 22.00        | 22.07        | 19.57          | 20.74        | 15.49        | 20.91        | 18.53        | 18.57        | 21.76        | 17.83        | 19.89        |
| 9       | CoSnK 14102       | 19.48        | 20.73         | 21.93        | 20.27        | 21.02        | 22.13        | 18.73          | 20.74        | 16.76        | 21.25        | 19.53        | 19.84        | 21.01        | 18.50        | 20.14        |
| 10      | CoSnK 14103       | 20.44        | 21.45         | 21.13        | 20.07        | 20.60        | 21.59        | 19.43          | 21.98        | 16.33        | 20.38        | 21.33        | 19.42        | 21.26        | 17.83        | 20.23        |
| 11      | CoT 14367         | 19.60        | 18.71         | 21.37        | 19.07        | 20.60        | 22.44        | 19.77          | 21.47        | 16.03        | 21.42        | 19.03        | 19.49        | 19.76        | 19.10        | 19.85        |
| 12      | CoTI 14111        | 20.10        | 21.00         | 21.47        | 19.87        | 21.20        | 22.97        | 19.77          | 21.98        | 16.22        | 19.95        | 18.50        | 19.09        | 21.51        | 19.10        | 20.19        |
| 13      | CoVC 14062        | 22.04        | 20.82         | 22.23        | 21.27        | 21.93        | 23.60        | 19.83          | 22.31        | 16.05        | 22.40        | 20.13        | 20.73        | 23.52        | 21.33        | 21.30        |
| 14      | MS 14081          | 20.77        | 19.72         | 22.87        | 22.37        | 21.30        | 23.22        | 19.57          | 21.88        | 16.28        | 22.34        | 20.70        | 20.71        | 23.52        | 19.50        | 21.05        |
| 15      | MS 14082          | 20.29        | 21.25         | 22.67        | 20.60        | 21.38        | 23.16        | 20.13          | 21.91        | 16.81        | 22.31        | 21.27        | 20.66        | 22.26        | 20.70        | 21.10        |
|         | Standards         |              |               |              |              |              |              |                |              |              |              |              |              |              |              |              |
| 1       | Co 86032          | 20.46        | 21.47         | 22.90        | 20.47        | 22.13        | 23.24        | 20.20          | 22.45        | 18.67        | 21.26        | 21.50        | 21.62        | 22.01        | 20.37        | 21.34        |
| 2       | CoC 671           | 22.51        | 21.07         | 23.87        | 23.07        | 23.33        | 24.09        | 21.27          | 23.38        | 18.77        | 24.00        | 22.07        | 22.20        | 23.77        | 21.70        | 22.51        |
| 3       | CoSnk 05103       | 19.42        | 21.34         | 22.53        | 21.20        | 21.40        | 22.25        | 19.10          | 21.86        | 16.83        | 20.41        | 19.33        | 21.30        | 21.51        | 19.03        | 20.54        |
|         | <b>Grand Mean</b> | <b>20.80</b> | <b>20.78</b>  | <b>22.37</b> | <b>21.04</b> | <b>21.90</b> | <b>23.05</b> | <b>19.70</b>   | <b>22.19</b> | <b>16.83</b> | <b>22.01</b> | <b>20.30</b> | <b>21.71</b> | <b>22.65</b> | <b>19.52</b> | <b>21.06</b> |
|         | SE(m)             | 0.38         | 0.57          | 0.33         | 0.53         | 0.34         | 0.40         | 0.38           | 0.29         | 0.29         | 0.35         | 0.18         | 0.65         | 0.58         | 0.57         |              |
|         | CD                | 1.11         | 1.63          | 0.94         | 1.54         | 0.97         | 1.15         | 1.10           | 0.86         | 0.83         | 0.99         | 0.51         | 1.89         | 1.72         | 1.62         |              |
|         | CV                | 3.19         | 4.73          | 2.53         | 4.40         | 2.68         | 4.97         | 3.36           | 2.34         | 2.95         | 2.72         | 1.52         | 5.53         | 3.60         | 5.05         |              |

**Table 2.1.6 Purity % at harvest**

| Sl. No. | Entries           | Coimbatore   | Basmat Inagar | Kolhapur     | Mandya       | Navasari     | Pedegon      | Perumalapalle | Pravaranagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sankeshwar   | Thiruvala    | Mean         |
|---------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1       | Co 14002          | 91.92        | 84.74         | 86.10        | 93.95        | 89.52        | 94.07        | 89.60         | 89.59        | 87.29        | 92.52        | 92.57        | 90.55        | 90.63        | 90.17        | <b>90.23</b> |
| 2       | Co 14004          | 92.84        | 87.04         | 80.52        | 93.88        | 94.13        | 96.24        | 89.97         | 96.04        | 89.89        | 96.30        | 92.64        | 89.49        | 90.00        | 90.32        | <b>91.38</b> |
| 3       | Co 14012          | 90.47        | 89.50         | 85.89        | 94.14        | 94.12        | 94.56        | 89.63         | 94.27        | 87.25        | 95.60        | 93.60        | 89.56        | 91.81        | 90.61        | <b>91.50</b> |
| 4       | Co 14016          | 91.47        | 84.97         | 86.03        | 93.75        | 92.21        | 93.92        | 90.20         | 93.11        | 88.80        | 93.41        | 91.44        | 89.28        | 89.27        | 90.38        | <b>90.59</b> |
| 5       | Co 14027          | 90.32        | 84.36         | 84.97        | 94.59        | 94.23        | 92.11        | 89.93         | 92.87        | 90.50        | 92.07        | 93.36        | 89.27        | 90.40        | 90.32        | <b>90.66</b> |
| 6       | Co 14030          | 91.45        | 87.53         | 84.80        | 94.27        | 93.60        | 89.43        | 90.50         | 95.38        | 88.68        | 95.31        | 92.42        | 88.57        | 91.00        | 90.18        | <b>90.94</b> |
| 7       | Co 14032          | 91.84        | 89.16         | 87.07        | 94.48        | 92.47        | 92.83        | 89.80         | 94.00        | 86.30        | 92.48        | 93.79        | 89.20        | 90.25        | 90.30        | <b>91.00</b> |
| 8       | CoN 14073         | 90.10        | 89.50         | 80.79        | 94.49        | 89.55        | 93.77        | 89.63         | 95.58        | 88.40        | 91.67        | 91.55        | 86.57        | 86.46        | 90.33        | <b>89.89</b> |
| 9       | CoSnK 14102       | 91.03        | 87.19         | 86.05        | 94.21        | 94.77        | 92.04        | 90.47         | 92.13        | 88.62        | 93.57        | 91.48        | 89.29        | 86.83        | 90.40        | <b>90.58</b> |
| 10      | CoSnK 14103       | 91.77        | 87.21         | 80.99        | 94.06        | 92.93        | 92.50        | 89.60         | 92.82        | 89.18        | 91.00        | 92.15        | 88.67        | 87.86        | 90.33        | <b>90.08</b> |
| 11      | CoT 14367         | 90.57        | 87.84         | 83.30        | 93.80        | 92.09        | 93.13        | 90.17         | 94.07        | 89.89        | 88.51        | 90.30        | 88.16        | 83.93        | 90.69        | <b>89.75</b> |
| 12      | CoTI 14111        | 89.83        | 86.28         | 87.96        | 93.41        | 89.52        | 93.21        | 89.90         | 92.79        | 90.37        | 92.27        | 90.59        | 64.79        | 85.94        | 90.35        | <b>88.37</b> |
| 13      | CoVC 14062        | 89.97        | 87.82         | 85.49        | 93.91        | 93.23        | 91.74        | 90.47         | 93.39        | 89.91        | 94.17        | 91.30        | 89.69        | 89.22        | 90.15        | <b>90.75</b> |
| 14      | MS 14081          | 91.07        | 87.54         | 86.35        | 93.69        | 91.21        | 93.40        | 89.93         | 94.72        | 86.17        | 93.55        | 92.64        | 89.75        | 91.89        | 90.29        | <b>90.87</b> |
| 15      | MS 14082          | 90.22        | 86.79         | 83.60        | 94.34        | 93.03        | 93.74        | 89.40         | 94.04        | 87.68        | 93.58        | 92.45        | 65.52        | 91.32        | 90.40        | <b>89.01</b> |
|         | Standards         |              |               |              |              |              |              |               |              |              |              |              |              |              |              |              |
| 1       | Co 86032          | 91.40        | 85.80         | 87.63        | 94.43        | 92.74        | 93.78        | 89.90         | 93.39        | 87.55        | 92.15        | 94.61        | 89.18        | 91.80        | 90.10        | <b>91.03</b> |
| 2       | CoC 671           | 92.93        | 87.52         | 85.71        | 94.20        | 91.48        | 93.64        | 90.20         | 93.83        | 85.79        | 93.95        | 92.39        | 89.72        | 93.46        | 90.66        | <b>91.11</b> |
| 3       | CoSnk 05103       | 89.90        | 87.81         | 85.94        | 94.75        | 91.70        | 92.17        | 89.47         | 91.43        | 87.22        | 92.85        | 91.87        | 87.67        | 87.05        | 90.60        | <b>90.03</b> |
|         | <b>Grand Mean</b> | <b>91.06</b> | <b>87.14</b>  | <b>84.96</b> | <b>94.13</b> | <b>92.36</b> | <b>93.13</b> | <b>89.93</b>  | <b>93.52</b> | <b>88.30</b> | <b>93.05</b> | <b>92.29</b> | <b>88.86</b> | <b>89.40</b> | <b>90.37</b> | <b>90.61</b> |
|         | SE(m)             | 0.77         | 2.05          | 1.37         | 0.42         | 1.09         | 1.10         | 0.45          | 0.52         | 0.31         | 1.12         | 0.70         | 7.78         | 1.40         | 0.15         |              |
|         | CD                | N/A          | NS            | 3.94         | NS           | 3.13         | 3.16         | N.S.          | 1.51         | 0.88         | 3.21         | 2.00         | NS           | 4.18         | NS           |              |
|         | CV                | 1.47         | 4.17          | 2.80         | 0.78         | 2.04         | NS           | 0.87          | 0.97         | 0.60         | 2.08         | 1.31         | 15.60        | 2.22         | 0.29         |              |

**Table 2.1.7 Pol% Cane at harvest**

| Sl. No. | Entries           | Coimbatore   | Basmat hnagar | Kolhapur     | Mandya       | Navasari     | Pedagon      | Perumalapalle | Pravara nagar | Pugalur      | Pune         | Rudrur | Sameer wadi | Sankes hwar  | Thiruvala | Mean         |
|---------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------|-------------|--------------|-----------|--------------|
| 1       | Co 14002          | 14.53        |               | 14.92        | 14.65        | 14.86        | 16.56        |               |               | 11.60        | 16.28        |        |             | 16.84        |           | 15.03        |
| 2       | Co 14004          | 15.62        |               | 14.39        | 15.83        | 16.42        | 17.91        |               |               | 11.46        | 17.24        |        |             | 17.16        |           | 15.75        |
| 3       | Co 14012          | 14.42        |               | 15.41        | 15.44        | 16.33        | 17.56        |               |               | 11.03        | 16.75        |        |             | 16.96        |           | 15.49        |
| 4       | Co 14016          | 14.52        |               | 15.08        | 15.44        | 15.69        | 16.57        |               |               | 11.20        | 15.85        |        |             | 16.23        |           | 15.07        |
| 5       | Co 14027          | 15.11        |               | 15.24        | 15.19        | 16.36        | 15.78        |               |               | 12.31        | 14.85        |        |             | 16.25        |           | 15.14        |
| 6       | Co 14030          | 15.06        |               | 14.54        | 15.78        | 16.14        | 16.17        |               |               | 11.16        | 16.48        |        |             | 17.23        |           | 15.32        |
| 7       | Co 14032          | 16.39        |               | 15.67        | 15.82        | 15.78        | 17.14        |               |               | 12.46        | 16.33        |        |             | 17.44        |           | 15.88        |
| 8       | CoN 14073         | 13.52        |               | 12.77        | 14.61        | 15.10        | 15.98        |               |               | 10.59        | 14.94        |        |             | 14.90        |           | 14.05        |
| 9       | CoSnK 14102       | 13.31        |               | 14.62        | 14.63        | 15.18        | 15.16        |               |               | 11.46        | 14.85        |        |             | 14.11        |           | 14.17        |
| 10      | CoSnK 14103       | 14.52        |               | 13.24        | 14.49        | 14.52        | 15.03        |               |               | 11.25        | 14.26        |        |             | 14.53        |           | 13.98        |
| 11      | CoT 14367         | 13.91        |               | 13.81        | 13.61        | 14.45        | 16.05        |               |               | 11.13        | 14.70        |        |             | 13.49        |           | 13.89        |
| 12      | CoT1 14111        | 13.80        |               | 14.60        | 14.12        | 14.37        | 15.79        |               |               | 11.34        | 13.93        |        |             | 14.43        |           | 14.05        |
| 13      | CoVC 14062        | 15.39        |               | 14.76        | 15.38        | 15.57        | 16.52        |               |               | 11.12        | 15.96        |        |             | 16.19        |           | 15.11        |
| 14      | MS 14081          | 14.78        |               | 15.36        | 16.02        | 14.84        | 16.67        |               |               | 10.84        | 15.99        |        |             | 17.32        |           | 15.23        |
| 15      | MS 14082          | 14.02        |               | 14.87        | 14.68        | 15.25        | 16.82        |               |               | 11.36        | 15.83        |        |             | 16.08        |           | 14.86        |
|         | Standards         |              |               |              |              |              |              |               |               |              |              |        |             |              |           |              |
| 1       | Co 86032          | 14.15        |               | 15.52        | 14.61        | 15.76        | 16.67        |               |               | 12.66        | 14.87        |        |             | 15.99        |           | 15.03        |
| 2       | CoC 671           | 15.47        |               | 15.86        | 16.54        | 16.37        | 17.36        |               |               | 12.40        | 17.09        |        |             | 16.94        |           | 16.00        |
| 3       | CoSnk 05103       | 13.36        |               | 15.01        | 15.39        | 15.06        | 15.23        |               |               | 11.31        | 14.14        |        |             | 14.68        |           | 14.27        |
|         | <b>Grand Mean</b> | <b>14.56</b> |               | <b>14.76</b> | <b>15.12</b> | <b>15.45</b> | <b>16.39</b> |               |               | <b>11.48</b> | <b>15.57</b> |        |             | <b>15.93</b> |           | <b>14.91</b> |
|         | SE(m)             | 0.39         |               | 0.38         | 0.40         | 0.30         | 0.37         |               |               | 0.18         | 0.19         |        |             | 0.54         |           |              |
|         | CD                | 1.18         |               | 1.10         | 1.16         | 0.88         | 1.06         |               |               | 0.52         | 0.53         |        |             | 1.62         |           |              |
|         | CV                | 3.81         |               | 4.51         | 4.61         | 3.42         | 3.91         |               |               | 2.75         | 2.07         |        |             | 4.81         |           |              |

**Table 2.1.8 Fibre % at harvest**

| Sl. No. | Entries           | Coimbatore   | Basmatnagar | Kolhapur     | Mandya       | Navasari     | Pedegaon     | Perumalappalle | Pravara nagar | Pugalur | Pune         | Rudrur | Sameerwadi | Sankeshwar   | Thiruvala | Mean         |
|---------|-------------------|--------------|-------------|--------------|--------------|--------------|--------------|----------------|---------------|---------|--------------|--------|------------|--------------|-----------|--------------|
| 1       | Co 14002          | 13.40        |             | 11.85        | 13.77        | 13.27        | 13.44        |                |               |         | 13.93        |        |            | 10.95        |           | 12.94        |
| 2       | Co 14004          | 12.60        |             | 12.39        | 13.33        | 13.40        | 11.90        |                |               |         | 13.10        |        |            | 10.85        |           | 12.51        |
| 3       | Co 14012          | 13.00        |             | 12.76        | 13.40        | 13.57        | 13.29        |                |               |         | 14.00        |        |            | 13.07        |           | 13.30        |
| 4       | Co 14016          | 12.85        |             | 12.79        | 13.73        | 13.35        | 13.40        |                |               |         | 14.69        |        |            | 10.12        |           | 12.99        |
| 5       | Co 14027          | 12.20        |             | 12.16        | 13.74        | 13.44        | 14.88        |                |               |         | 16.03        |        |            | 11.95        |           | 13.49        |
| 6       | Co 14030          | 13.00        |             | 12.58        | 13.20        | 14.30        | 12.08        |                |               |         | 13.20        |        |            | 10.32        |           | 12.67        |
| 7       | Co 14032          | 13.20        |             | 12.43        | 13.88        | 14.41        | 12.93        |                |               |         | 13.64        |        |            | 12.00        |           | 13.21        |
| 8       | CoN 14073         | 11.80        |             | 11.55        | 13.39        | 13.36        | 12.79        |                |               |         | 12.03        |        |            | 10.77        |           | 12.24        |
| 9       | CoSnK 14102       | 14.20        |             | 12.56        | 13.40        | 13.80        | 15.59        |                |               |         | 15.33        |        |            | 12.64        |           | 13.93        |
| 10      | CoSnK 14103       | 13.00        |             | 12.56        | 13.20        | 14.15        | 14.74        |                |               |         | 13.08        |        |            | 12.27        |           | 13.29        |
| 11      | CoT 14367         | 12.40        |             | 12.42        | 13.93        | 13.85        | 13.21        |                |               |         | 12.27        |        |            | 8.65         |           | 12.39        |
| 12      | CoTI 14111        | 12.20        |             | 12.73        | 13.93        | 14.28        | 16.27        |                |               |         | 14.32        |        |            | 11.95        |           | 13.67        |
| 13      | CoVC 14062        | 13.80        |             | 12.35        | 13.07        | 13.82        | 13.68        |                |               |         | 14.32        |        |            | 12.82        |           | 13.41        |
| 14      | MS 14081          | 12.40        |             | 12.25        | 13.53        | 13.58        | 13.20        |                |               |         | 13.50        |        |            | 9.83         |           | 12.61        |
| 15      | MS 14082          | 12.00        |             | 11.62        | 14.47        | 13.35        | 12.50        |                |               |         | 14.19        |        |            | 10.83        |           | 12.71        |
|         | Standards         |              |             |              |              |              |              |                |               |         |              |        |            |              |           |              |
| 1       | Co 86032          | 13.00        |             | 12.66        | 14.40        | 13.22        | 13.51        |                |               |         | 14.13        |        |            | 10.84        |           | 13.11        |
| 2       | CoC 671           | 13.20        |             | 12.50        | 13.87        | 13.28        | 13.07        |                |               |         | 14.19        |        |            | 13.72        |           | 13.40        |
| 3       | CoSnk 05103       | 13.80        |             | 12.53        | 13.38        | 13.27        | 15.71        |                |               |         | 15.40        |        |            | 11.60        |           | 13.67        |
|         | <b>Grand Mean</b> | <b>12.86</b> |             | <b>12.37</b> | <b>13.65</b> | <b>13.65</b> | <b>13.68</b> |                |               |         | <b>13.96</b> |        |            | <b>11.40</b> |           | <b>13.08</b> |
|         | SE(m)             | 0.52         |             | 0.24         | 0.45         | 0.10         | 0.39         |                |               |         | 0.21         |        |            | 0.88         |           |              |
|         | CD                | N/A          |             | 0.68         | NS           | 0.29         | 1.12         |                |               |         | 0.61         |        |            | 2.63         |           |              |
|         | CV                | 5.75         |             | 3.30         | 5.70         | 1.29         | 4.93         |                |               |         | 2.62         |        |            | 10.93        |           |              |

**Table 2.1.9 Extraction % at harvest**

| Sl. No. | Entries           | Coimbatore   | Basmat hnagar | Kolhapur     | Mandya       | Navasari     | Pedeago n    | Peruma lapalle | Pravara nagar | Pugalur      | Pune         | Rudrur | Sameer wadi | Sankesh war  | Thiruva illa | Mean         |
|---------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------|-------------|--------------|--------------|--------------|
| 1       | Co 14002          | 42.70        |               | 52.33        | 59.42        | 57.75        | 49.87        | 68.38          | 54.95         | 52.62        | 47.78        |        |             | 61.64        | 57.04        | 54.95        |
| 2       | Co 14004          | 48.79        |               | 54.11        | 63.20        | 60.65        | 49.69        | 61.99          | 53.17         | 50.92        | 51.51        |        |             | 58.63        | 56.06        | 55.34        |
| 3       | Co 14012          | 48.52        |               | 55.04        | 66.18        | 56.62        | 47.29        | 58.58          | 50.92         | 54.18        | 48.93        |        |             | 58.53        | 62.51        | 55.21        |
| 4       | Co 14016          | 49.10        |               | 52.92        | 58.01        | 61.03        | 52.64        | 58.05          | 52.99         | 55.44        | 49.91        |        |             | 56.73        | 61.85        | 55.33        |
| 5       | Co 14027          | 46.72        |               | 49.91        | 56.72        | 60.03        | 43.19        | 47.57          | 54.21         | 49.55        | 46.05        |        |             | 53.83        | 55.55        | 51.21        |
| 6       | Co 14030          | 47.66        |               | 55.59        | 61.57        | 58.92        | 47.72        | 62.65          | 50.58         | 53.92        | 46.75        |        |             | 57.85        | 59.88        | 54.83        |
| 7       | Co 14032          | 51.07        |               | 53.01        | 58.09        | 56.29        | 48.59        | 58.47          | 57.38         | 50.71        | 43.14        |        |             | 57.63        | 61.44        | 54.17        |
| 8       | CoN 14073         | 49.81        |               | 52.51        | 60.99        | 61.04        | 42.76        | 60.84          | 58.12         | 53.82        | 45.45        |        |             | 59.86        | 60.87        | 55.10        |
| 9       | CoSnK 14102       | 39.25        |               | 49.10        | 51.16        | 60.53        | 29.90        | 45.63          | 56.95         | 50.12        | 39.85        |        |             | 46.99        | 55.05        | 47.68        |
| 10      | CoSnK 14103       | 42.43        |               | 50.15        | 55.63        | 59.40        | 44.11        | 54.14          | 53.24         | 53.38        | 42.84        |        |             | 59.86        | 56.21        | 51.94        |
| 11      | CoT 14367         | 51.84        |               | 53.46        | 62.02        | 56.36        | 50.32        | 52.60          | 53.55         | 51.94        | 42.79        |        |             | 60.11        | 60.21        | 54.11        |
| 12      | CoTI 14111        | 45.27        |               | 51.55        | 57.45        | 57.27        | 44.74        | 56.31          | 57.02         | 49.88        | 46.81        |        |             | 56.05        | 59.38        | 52.88        |
| 13      | CoVC 14062        | 51.34        |               | 54.30        | 60.90        | 60.60        | 50.24        | 57.09          | 49.77         | 51.80        | 47.81        |        |             | 59.31        | 61.23        | 54.94        |
| 14      | MS 14081          | 46.05        |               | 54.96        | 56.47        | 57.36        | 42.66        | 60.38          | 59.88         | 52.10        | 46.09        |        |             | 60.05        | 58.29        | 54.03        |
| 15      | MS 14082          | 48.55        |               | 54.63        | 57.42        | 58.85        | 39.38        | 64.03          | 54.80         | 52.11        | 50.42        |        |             | 57.19        | 57.70        | 54.10        |
|         | Standards         |              |               |              |              |              |              |                |               |              |              |        |             |              |              |              |
| 1       | Co 86032          | 49.38        |               | 48.69        | 62.05        | 58.26        | 45.33        | 56.28          | 56.11         | 53.98        | 50.79        |        |             | 58.90        | 59.99        | 54.52        |
| 2       | CoC 671           | 45.91        |               | 52.90        | 62.87        | 60.67        | 43.68        | 51.81          | 51.27         | 53.54        | 52.05        |        |             | 64.22        | 57.82        | 54.25        |
| 3       | CoSnk 05103       | 38.68        |               | 49.70        | 55.01        | 60.83        | 46.79        | 58.58          | 50.22         | 55.06        | 41.67        |        |             | 58.15        | 54.40        | 51.74        |
|         | <b>Grand Mean</b> | <b>46.84</b> |               | <b>52.49</b> | <b>59.17</b> | <b>59.03</b> | <b>45.49</b> | <b>57.41</b>   | <b>54.17</b>  | <b>52.50</b> | <b>46.70</b> |        |             | <b>58.08</b> | <b>58.64</b> | <b>53.68</b> |
|         | SE(m)             | 2.50         |               | 1.32         | 4.19         | 0.93         | 3.39         | 3.10           | 0.68          | 1.41         | 1.17         |        |             | 2.29         | 2.58         |              |
|         | CD                | 7.22         |               | 3.80         | 12.04        | 2.66         | 9.75         | 8.91           | 1.97          | 4.05         | 3.37         |        |             | 6.83         | NS           |              |
|         | CV                | 9.25         |               | 4.36         | 12.26        | 2.72         | 12.91        | 9.36           | 2.19          | 4.66         | 4.35         |        |             | 5.57         | 7.61         |              |

**Table 2.1.10 Number of millable canes (000'/ha) at harvest**

| Sl. No. | Entries           | Coimbatore   | Basmat Inagar | Kolhapur     | Mandya        | Navasari     | Pedego       | Perumalappalle | Pravara nagar | Pugalur      | Pune         | Rudrur       | Sameer wadi   | Sankeshwar   | Thiruvalla | Mean         |
|---------|-------------------|--------------|---------------|--------------|---------------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|---------------|--------------|------------|--------------|
| 1       | Co 14002          | 98.77        | 77.54         | 88.67        | 106.93        | 86.86        | 86.63        | 106.14         | 134.33        | 92.55        | 62.31        | 52.43        | 112.27        | 92.12        |            | 92.12        |
| 2       | Co 14004          | 81.94        | 81.38         | 63.89        | 107.92        | 87.38        | 96.40        | 105.71         | 118.56        | 93.95        | 80.93        | 70.52        | 117.05        | 92.14        |            | 92.14        |
| 3       | Co 14012          | 86.27        | 74.65         | 85.75        | 105.86        | 81.42        | 82.85        | 113.18         | 108.11        | 96.79        | 86.11        | 62.04        | 111.19        | 91.19        |            | 91.19        |
| 4       | Co 14016          | 114.74       | 83.32         | 68.48        | 113.57        | 90.22        | 111.27       | 116.33         | 155.21        | 107.91       | 86.71        | 77.55        | 113.35        | 103.22       |            | 103.22       |
| 5       | Co 14027          | 79.78        | 79.44         | 78.93        | 107.83        | 60.30        | 89.47        | 118.42         | 129.80        | 79.94        | 66.62        | 76.85        | 104.55        | 89.33        |            | 89.33        |
| 6       | Co 14030          | 72.38        | 81.35         | 83.22        | 97.67         | 86.05        | 93.79        | 110.20         | 122.84        | 99.39        | 76.90        | 78.24        | 107.10        | 92.43        |            | 92.43        |
| 7       | Co 14032          | 59.41        | 85.22         | 58.85        | 97.38         | 62.73        | 91.09        | 97.27          | 88.28         | 77.56        | 65.60        | 70.60        | 101.47        | 79.62        |            | 79.62        |
| 8       | CoN 14073         | 81.17        | 95.80         | 67.99        | 122.33        | 67.25        | 84.70        | 98.66          | 131.08        | 89.31        | 78.81        | 70.25        | 124.00        | 92.61        |            | 92.61        |
| 9       | CoSnK 14102       | 87.96        | 79.44         | 62.37        | 97.95         | 80.38        | 78.69        | 103.78         | 142.45        | 89.69        | 74.58        | 65.12        | 105.71        | 89.01        |            | 89.01        |
| 10      | CoSnK 14103       | 84.41        | 81.80         | 48.03        | 96.95         | 49.36        | 82.62        | 106.15         | 95.24         | 53.09        | 73.29        | 71.76        | 101.54        | 78.69        |            | 78.69        |
| 11      | CoT 14367         | 66.05        | 76.94         | 59.50        | 87.48         | 58.62        | 82.70        | 111.36         | 110.55        | 69.41        | 59.97        | 70.91        | 123.30        | 81.40        |            | 81.40        |
| 12      | CoTI 14111        | 87.11        | 69.82         | 79.88        | 108.66        | 72.16        | 88.55        | 103.58         | 123.31        | 83.37        | 67.96        | 60.53        | 100.62        | 87.13        |            | 87.13        |
| 13      | CoVC 14062        | 73.92        | 92.94         | 55.23        | 95.20         | 61.75        | 80.93        | 106.54         | 143.38        | 66.90        | 60.46        | 65.20        | 104.17        | 83.88        |            | 83.88        |
| 14      | MS 14081          | 78.40        | 79.44         | 72.65        | 88.46         | 64.81        | 84.01        | 111.86         | 109.97        | 81.15        | 57.55        | 67.82        | 91.51         | 82.30        |            | 82.30        |
| 15      | MS 14082          | 100.93       | 84.27         | 78.70        | 118.81        | 87.04        | 103.10       | 111.41         | 145.70        | 91.04        | 79.95        | 73.92        | 119.06        | 99.49        |            | 99.49        |
|         | Standards         |              |               |              |               |              |              |                |               |              |              |              |               |              |            |              |
| 1       | Co 86032          | 78.70        | 77.51         | 72.02        | 99.95         | 85.13        | 96.25        | 129.47         | 139.55        | 88.43        | 67.13        | 61.00        | 112.19        | 92.28        |            | 92.28        |
| 2       | CoC 671           | 69.06        | 59.86         | 59.16        | 93.63         | 56.25        | 76.92        | 118.05         | 136.30        | 80.65        | 62.41        | 67.05        | 107.79        | 82.26        |            | 82.26        |
| 3       | CoSnk 05103       | 118.67       | 72.68         | 64.49        | 102.26        | 110.71       | 118.97       | 117.64         | 148.71        | 101.55       | 101.81       | 50.69        | 105.87        | 101.17       |            | 101.17       |
|         | <b>Grand Mean</b> | <b>84.43</b> | <b>79.63</b>  | <b>69.32</b> | <b>102.71</b> | <b>74.91</b> | <b>90.50</b> | <b>110.60</b>  | <b>126.85</b> | <b>85.70</b> | <b>72.73</b> | <b>67.39</b> | <b>109.04</b> | <b>89.48</b> |            | <b>89.48</b> |
|         | SE(m)             | 4.82         | 2.99          | 3.30         | 3.81          | 2.94         | 3.83         | 2.21           | 9.52          | 4.33         | 3.67         | 2.71         | 5.33          |              |            |              |
|         | CD                | 13.90        | 8.59          | 9.49         | 10.96         | 8.44         | 10.99        | 6.35           | 27.36         | 12.44        | 10.54        | 7.83         | 15.14         |              |            |              |
|         | CV                | 9.88         | 6.50          | 8.25         | 6.43          | 6.79         | 7.32         | 3.46           | 13.00         | 8.75         | 8.73         | 6.97         | 8.46          |              |            |              |

**Table 2.1.11 Stalk length (cm) at harvest**

| Sl. No. | Entries           | Coimbatore    | Basmat Inagar | Kolhapur      | Mandya        | Navasari      | Pedagon       | Perumalapalle | Pravaranagar  | Pugalur       | Pune          | Rudrur        | Sameerwadi    | Sankeshwar    | Thiruvalla    | Mean          |
|---------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1       | Co 14002          | 257.67        | 307.33        | 317.50        | 262.00        | 238.33        | 265.00        | 303.33        | 266.33        | 227.67        | 275.44        | 243.93        | 292.33        | 337.50        | 248.11        | 274.46        |
| 2       | Co 14004          | 233.33        | 238.00        | 313.33        | 234.67        | 245.00        | 260.00        | 325.00        | 174.66        | 218.88        | 268.66        | 255.00        | 304.33        | 309.00        | 247.22        | 259.08        |
| 3       | Co 14012          | 233.33        | 274.00        | 283.67        | 191.33        | 233.33        | 222.50        | 310.00        | 169.33        | 234.90        | 257.89        | 231.40        | 287.33        | 292.50        | 250.67        | 248.01        |
| 4       | Co 14016          | 224.33        | 256.67        | 257.67        | 205.33        | 281.67        | 250.00        | 345.00        | 157.00        | 229.22        | 277.33        | 243.40        | 272.66        | 278.50        | 244.44        | 251.66        |
| 5       | Co 14027          | 263.33        | 222.67        | 278.50        | 246.00        | 278.33        | 265.00        | 366.67        | 222.66        | 269.60        | 236.44        | 239.73        | 268.33        | 267.50        | 242.67        | 261.96        |
| 6       | Co 14030          | 243.33        | 299.33        | 295.17        | 190.00        | 245.00        | 247.50        | 358.33        | 206.66        | 236.13        | 238.22        | 243.53        | 253.00        | 239.50        | 253.89        | 253.54        |
| 7       | Co 14032          | 255.00        | 365.00        | 303.00        | 239.33        | 228.33        | 262.50        | 344.67        | 229.33        | 252.08        | 253.56        | 237.27        | 292.66        | 305.00        | 299.00        | 276.19        |
| 8       | CoN 14073         | 287.67        | 302.67        | 338.83        | 282.00        | 305.00        | 302.50        | 414.00        | 248.66        | 263.07        | 310.00        | 252.40        | 326.66        | 340.00        | 303.44        | 305.49        |
| 9       | CoSnK 14102       | 308.33        | 307.00        | 336.67        | 272.67        | 253.33        | 267.50        | 338.33        | 230.33        | 230.35        | 292.33        | 273.27        | 325.00        | 295.50        | 255.56        | 284.73        |
| 10      | CoSnK 14103       | 265.00        | 263.00        | 361.17        | 230.00        | 271.67        | 247.50        | 346.67        | 242.33        | 250.40        | 253.22        | 227.60        | 296.33        | 311.50        | 287.33        | 275.27        |
| 11      | CoT 14367         | 256.67        | 325.67        | 271.67        | 212.67        | 235.00        | 225.00        | 348.33        | 200.33        | 197.27        | 203.78        | 210.40        | 294.66        | 292.00        | 259.44        | 252.35        |
| 12      | CoTI 14111        | 290.00        | 309.33        | 365.17        | 236.67        | 261.67        | 292.50        | 362.00        | 242.33        | 254.68        | 311.56        | 269.80        | 299.33        | 365.00        | 285.44        | 296.11        |
| 13      | CoVC 14062        | 227.67        | 327.67        | 273.33        | 248.00        | 268.33        | 257.50        | 382.67        | 209.80        | 221.52        | 255.11        | 265.67        | 276.33        | 333.50        | 271.56        | 272.76        |
| 14      | MS 14081          | 256.67        | 309.67        | 311.33        | 248.00        | 236.67        | 287.50        | 375.00        | 246.66        | 240.57        | 278.55        | 239.80        | 306.33        | 325.00        | 252.78        | 279.61        |
| 15      | MS 14082          | 268.33        | 321.33        | 309.67        | 258.00        | 263.33        | 265.00        | 328.33        | 245.33        | 265.10        | 286.66        | 264.80        | 273.66        | 288.00        | 302.89        | 281.46        |
|         | Standards         |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| 1       | Co 86032          | 252.67        | 295.33        | 300.00        | 260.00        | 238.33        | 287.50        | 367.00        | 214.00        | 266.68        | 248.44        | 231.27        | 302.00        | 308.50        | 238.67        | 272.17        |
| 2       | CoC 671           | 277.67        | 301.67        | 285.00        | 234.00        | 241.67        | 222.50        | 344.67        | 205.33        | 278.17        | 240.78        | 239.67        | 316.66        | 311.00        | 240.33        | 267.08        |
| 3       | CoSnk 05103       | 256.67        | 331.67        | 330.67        | 241.33        | 256.67        | 299.50        | 445.00        | 207.00        | 267.43        | 287.56        | 270.53        | 308.66        | 354.00        | 281.56        | 295.59        |
|         | <b>Grand Mean</b> | <b>258.76</b> | <b>297.67</b> | <b>307.35</b> | <b>238.44</b> | <b>254.54</b> | <b>262.61</b> | <b>355.83</b> | <b>217.62</b> | <b>244.65</b> | <b>265.31</b> | <b>246.64</b> | <b>309.11</b> | <b>308.53</b> | <b>264.72</b> | <b>273.70</b> |
|         | SE(m)             | 11.35         | 24.65         | 15.08         | 5.70          | 7.17          | 10.10         | 9.51          | 1.36          | 8.43          | 12.28         | 1.83          | 14.36         | 9.10          | 10.44         |               |
|         | CD                | 32.75         | 71.15         | 43.34         | 16.39         | 20.60         | 29.03         | 27.33         | 3.91          | 24.24         | 35.29         | 5.25          | NS            | 27.16         | 29.68         |               |
|         | CV                | 7.60          | 14.34         | 8.50          | 4.14          | 4.88          | 6.62          | 4.63          | 1.08          | 5.98          | 8.02          | 1.28          | 8.45          | 4.17          | 6.83          |               |

**Table 2.1.12 Stalk diameter (cm) at harvest**

| Sl. No. | Entries           | Coimbatore  | Basmat bhagar | Kolhapur    | Mandya      | Navasari    | Pedegon     | Perumalalle | Pravaranagar | Pugalur     | Pune        | Rudrur      | Sameerwadi  | Sankeshwar  | Thiruvala   | Mean        |
|---------|-------------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1       | Co 14002          | 2.86        | 3.67          | 2.62        | 2.80        | 2.53        | 3.08        | 2.87        | 2.66         | 2.85        | 2.85        | 2.90        | 2.56        | 2.48        | 1.95        | 2.76        |
| 2       | Co 14004          | 2.77        | 3.29          | 2.97        | 2.93        | 2.64        | 3.00        | 2.80        | 2.52         | 2.80        | 2.81        | 2.76        | 2.76        | 2.55        | 1.93        | 2.75        |
| 3       | Co 14012          | 2.83        | 3.08          | 2.66        | 2.63        | 2.50        | 3.00        | 3.00        | 2.52         | 3.00        | 3.02        | 2.60        | 2.56        | 2.49        | 2.55        | 2.75        |
| 4       | Co 14016          | 2.83        | 3.42          | 2.74        | 2.75        | 2.60        | 2.98        | 2.67        | 2.57         | 2.97        | 2.97        | 3.13        | 2.80        | 2.28        | 2.44        | 2.80        |
| 5       | Co 14027          | 2.98        | 3.15          | 2.71        | 3.17        | 2.64        | 3.22        | 3.13        | 2.62         | 2.95        | 2.89        | 3.17        | 2.70        | 2.95        | 1.85        | 2.87        |
| 6       | Co 14030          | 2.95        | 3.08          | 2.76        | 2.88        | 2.57        | 2.95        | 3.00        | 2.56         | 2.98        | 2.66        | 3.00        | 2.60        | 2.51        | 2.59        | 2.79        |
| 7       | Co 14032          | 3.01        | 3.39          | 2.99        | 3.13        | 2.33        | 3.22        | 3.00        | 2.58         | 2.96        | 2.99        | 2.96        | 2.73        | 2.65        | 2.62        | 2.90        |
| 8       | CoN 14073         | 3.05        | 3.34          | 3.03        | 2.75        | 2.80        | 2.87        | 3.30        | 2.54         | 3.02        | 3.09        | 3.11        | 2.66        | 2.65        | 2.62        | 2.92        |
| 9       | CoSnK 14102       | 2.57        | 2.55          | 2.68        | 2.57        | 2.59        | 2.66        | 3.10        | 2.45         | 2.95        | 2.58        | 2.65        | 2.50        | 2.32        | 1.94        | 2.58        |
| 10      | CoSnK 14103       | 2.91        | 3.62          | 3.20        | 2.94        | 2.56        | 2.98        | 3.17        | 2.58         | 3.00        | 2.99        | 3.00        | 2.70        | 2.60        | 2.44        | 2.91        |
| 11      | CoT 14367         | 3.13        | 3.73          | 3.21        | 3.21        | 2.38        | 3.27        | 3.23        | 2.55         | 2.97        | 2.89        | 3.42        | 2.83        | 2.81        | 2.54        | 3.01        |
| 12      | CoT1 14111        | 2.95        | 3.08          | 2.90        | 2.88        | 2.57        | 3.24        | 3.07        | 2.55         | 2.84        | 2.93        | 3.29        | 2.90        | 2.51        | 2.85        | 2.90        |
| 13      | CoVC 14062        | 3.13        | 3.45          | 3.37        | 2.91        | 2.60        | 3.19        | 2.83        | 2.46         | 3.01        | 3.31        | 3.42        | 2.90        | 2.56        | 2.82        | 3.00        |
| 14      | MS 14081          | 3.02        | 3.49          | 3.19        | 3.00        | 2.42        | 3.27        | 3.17        | 2.63         | 2.98        | 3.07        | 3.30        | 2.83        | 2.72        | 2.55        | 2.97        |
| 15      | MS 14082          | 3.00        | 3.36          | 2.84        | 2.84        | 2.52        | 3.03        | 2.97        | 2.66         | 2.93        | 2.72        | 3.23        | 2.63        | 2.71        | 2.57        | 2.86        |
|         | Standards         |             |               |             |             |             |             |             |              |             |             |             |             |             |             |             |
| 1       | Co 86032          | 3.07        | 3.50          | 2.83        | 2.90        | 2.46        | 3.22        | 3.03        | 2.59         | 2.98        | 3.24        | 2.83        | 2.86        | 2.43        | 2.35        | 2.88        |
| 2       | CoC 671           | 3.00        | 3.30          | 3.07        | 3.14        | 2.66        | 3.27        | 2.77        | 2.46         | 2.96        | 2.99        | 3.15        | 2.86        | 2.76        | 2.84        | 2.94        |
| 3       | CoSnk 05103       | 2.44        | 3.08          | 2.82        | 2.51        | 2.62        | 2.79        | 2.87        | 2.43         | 2.71        | 2.78        | 2.58        | 2.56        | 2.55        | 1.96        | 2.62        |
|         | <b>Grand Mean</b> | <b>2.92</b> | <b>3.31</b>   | <b>2.92</b> | <b>2.89</b> | <b>2.55</b> | <b>3.07</b> | <b>3.00</b> | <b>2.55</b>  | <b>2.94</b> | <b>2.93</b> | <b>3.03</b> | <b>2.76</b> | <b>2.58</b> | <b>2.41</b> | <b>2.85</b> |
|         | SE(m)             | 0.07        | 0.10          | 0.13        | 0.08        | 0.02        | 0.08        | 0.08        | 0.01         | 0.78        | 0.09        | 0.04        | 0.09        | 0.09        | 0.11        |             |
|         | CD                | 0.20        | 0.30          | 0.37        | 0.23        | 0.07        | 0.22        | 0.23        | 0.04         | 0.22        | 0.27        | 0.12        | NS          | 0.28        | 0.32        |             |
|         | CV                | 4.09        | 5.46          | 7.59        | 4.83        | 1.69        | 4.33        | 4.59        | 1.17         | 4.60        | 5.49        | 2.49        | 6.04        | 5.08        | 8.00        |             |



**Table 2.1.13 Single cane weight (kg) at harvest**

| Sl. No. | Entries           | Coimbatore  | Basmat Inagar | Kolhapur    | Mandya      | Navasari    | Pedegon     | Peruma lapalle | Pravara nagar | Pugalur     | Pune        | Rudrur      | Sameer wadi | Sankeshwar  | Thiruvala   | Mean        |
|---------|-------------------|-------------|---------------|-------------|-------------|-------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1       | Co 14002          | 1.26        | 1.57          | 1.45        | 1.33        | 1.03        | 1.38        | 1.30           | 1.61          | 1.33        | 1.70        | 1.76        | 1.45        | 2.00        | 1.00        | 1.44        |
| 2       | Co 14004          | 1.16        | 1.27          | 1.64        | 1.39        | 1.15        | 1.64        | 1.34           | 1.34          | 1.28        | 1.49        | 1.25        | 1.66        | 1.81        | 0.99        | 1.39        |
| 3       | Co 14012          | 1.03        | 1.43          | 1.64        | 0.99        | 1.07        | 1.27        | 1.67           | 1.49          | 1.49        | 1.53        | 1.10        | 1.43        | 1.59        | 1.24        | 1.35        |
| 4       | Co 14016          | 1.05        | 1.46          | 1.33        | 1.09        | 1.11        | 1.53        | 1.34           | 1.45          | 1.52        | 1.54        | 1.44        | 1.67        | 1.33        | 1.12        | 1.36        |
| 5       | Co 14027          | 1.77        | 1.38          | 1.35        | 1.49        | 1.08        | 1.81        | 2.15           | 1.63          | 1.75        | 1.52        | 1.71        | 1.44        | 1.86        | 0.95        | 1.56        |
| 6       | Co 14030          | 1.17        | 1.38          | 1.48        | 1.10        | 1.05        | 1.38        | 1.78           | 1.67          | 1.45        | 1.31        | 1.54        | 1.26        | 1.34        | 1.43        | 1.38        |
| 7       | Co 14032          | 1.57        | 1.32          | 1.62        | 1.55        | 0.88        | 2.00        | 1.81           | 1.83          | 1.53        | 1.62        | 1.61        | 1.58        | 1.86        | 1.58        | 1.60        |
| 8       | CoN 14073         | 1.66        | 1.41          | 1.80        | 1.45        | 1.38        | 1.75        | 2.10           | 1.75          | 1.72        | 1.99        | 1.74        | 1.67        | 1.94        | 1.44        | 1.70        |
| 9       | CoSnK 14102       | 1.40        | 1.44          | 1.49        | 1.41        | 1.07        | 1.38        | 1.76           | 1.65          | 1.35        | 1.52        | 1.48        | 1.68        | 1.69        | 1.00        | 1.45        |
| 10      | CoSnK 14103       | 1.22        | 1.35          | 2.26        | 1.34        | 1.00        | 1.78        | 2.08           | 1.57          | 1.55        | 1.46        | 1.43        | 1.61        | 1.87        | 1.27        | 1.56        |
| 11      | CoT 14367         | 1.44        | 1.30          | 1.81        | 1.60        | 0.92        | 1.54        | 1.83           | 1.47          | 1.40        | 1.43        | 1.76        | 1.63        | 2.06        | 1.29        | 1.53        |
| 12      | CoTI 14111        | 1.21        | 1.52          | 1.77        | 1.26        | 1.12        | 1.77        | 1.79           | 1.74          | 1.65        | 1.84        | 1.97        | 1.58        | 1.77        | 1.70        | 1.62        |
| 13      | CoVC 14062        | 1.08        | 1.23          | 1.99        | 1.39        | 1.07        | 1.76        | 2.02           | 1.44          | 1.42        | 1.69        | 2.18        | 1.66        | 1.98        | 1.68        | 1.61        |
| 14      | MS 14081          | 1.25        | 1.20          | 1.69        | 1.52        | 0.93        | 1.93        | 1.47           | 2.02          | 1.48        | 1.79        | 1.84        | 1.75        | 2.41        | 1.16        | 1.60        |
| 15      | MS 14082          | 1.56        | 1.67          | 1.65        | 1.39        | 1.07        | 1.72        | 1.79           | 1.53          | 1.56        | 1.82        | 1.87        | 1.45        | 1.74        | 1.64        | 1.60        |
|         | Standards         |             |               |             |             |             |             |                |               |             |             |             |             |             |             |             |
| 1       | Co 86032          | 1.33        | 1.68          | 1.63        | 1.53        | 1.03        | 1.78        | 1.83           | 1.59          | 1.58        | 1.47        | 1.44        | 1.63        | 1.69        | 1.17        | 1.53        |
| 2       | CoC 671           | 1.68        | 1.85          | 1.67        | 1.57        | 1.10        | 1.94        | 1.74           | 1.53          | 1.83        | 1.54        | 1.49        | 1.68        | 2.30        | 1.55        | 1.68        |
| 3       | CoSnk 05103       | 0.84        | 1.51          | 1.66        | 0.95        | 1.15        | 0.94        | 1.48           | 1.14          | 1.35        | 1.21        | 1.11        | 1.38        | 1.96        | 0.95        | 1.26        |
|         | <b>Grand Mean</b> | <b>1.32</b> | <b>1.44</b>   | <b>1.66</b> | <b>1.35</b> | <b>1.07</b> | <b>1.63</b> | <b>1.74</b>    | <b>1.58</b>   | <b>1.51</b> | <b>1.58</b> | <b>1.60</b> | <b>1.57</b> | <b>1.84</b> | <b>1.29</b> | <b>1.51</b> |
|         | SE(m)             | 0.09        | 0.08          | 0.11        | 0.06        | 0.04        | 0.09        | 0.07           | 0.01          | 0.61        | 0.02        | 0.02        | 0.08        | 0.12        | 0.06        |             |
|         | CD                | 0.25        | 0.22          | 0.31        | 0.16        | 0.13        | 0.27        | 0.20           | 0.04          | 0.18        | 0.06        | 0.07        | 0.22        | 0.36        | 0.16        |             |
|         | CV                | 11.63       | 9.09          | 11.11       | 7.32        | 7.15        | 10.10       | 6.81           | 1.62          | 7.00        | 2.38        | 2.57        | 8.47        | 9.20        | 7.76        |             |

**Table 2.1.14 CCS % at 10 months**

| Sl. No. | Entries           | Coimbatore   | Basmat hnagar | Kolhapur     | Mandya       | Navasari     | Pedego n     | Peruma lapalle | Pravara nagar | Pugalur     | Pune         | Rudrur       | Sameer wadi  | Sankesh war  | Thiruva lla  | Mean         |
|---------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|----------------|---------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1       | Co 14002          | 14.27        |               | 10.59        | 12.93        | 11.40        | 11.31        | 11.09          | 12.85         | 9.59        | 14.06        | 12.01        | 11.38        | 12.60        | 11.67        | <b>11.98</b> |
| 2       | Co 14004          | 15.14        |               | 11.99        | 14.06        | 13.57        | 10.95        | 11.61          | 13.89         | 9.94        | 13.73        | 11.70        | 12.06        | 12.37        | 9.52         | <b>12.35</b> |
| 3       | Co 14012          | 14.25        |               | 12.28        | 13.94        | 13.01        | 12.73        | 11.59          | 13.44         | 9.62        | 13.36        | 13.30        | 12.43        | 12.54        | 11.45        | <b>12.61</b> |
| 4       | Co 14016          | 14.04        |               | 9.67         | 12.22        | 12.34        | 10.42        | 10.20          | 11.52         | 9.74        | 12.47        | 10.34        | 11.49        | 11.25        | 10.16        | <b>11.22</b> |
| 5       | Co 14027          | 14.70        |               | 10.81        | 13.12        | 13.27        | 10.90        | 11.28          | 13.11         | 10.82       | 11.83        | 12.68        | 11.29        | 13.12        | 8.97         | <b>11.99</b> |
| 6       | Co 14030          | 15.00        |               | 9.98         | 14.01        | 13.63        | 12.25        | 10.32          | 12.54         | 9.63        | 13.30        | 10.82        | 13.36        | 14.07        | 10.52        | <b>12.26</b> |
| 7       | Co 14032          | 15.97        |               | 11.72        | 13.93        | 13.20        | 10.90        | 10.56          | 13.15         | 10.84       | 13.32        | 11.13        | 11.18        | 10.76        | 10.16        | <b>12.06</b> |
| 8       | CoN 14073         | 13.24        |               | 8.73         | 11.77        | 11.13        | 9.88         | 8.90           | 11.09         | 8.69        | 9.67         | 10.43        | 7.62         | 9.38         | 9.18         | <b>9.98</b>  |
| 9       | CoSnK 14102       | 13.35        |               | 9.01         | 12.96        | 12.96        | 11.13        | 10.68          | 11.98         | 10.17       | 11.72        | 11.08        | 11.88        | 10.19        | 9.73         | <b>11.30</b> |
| 10      | CoSnK 14103       | 14.51        |               | 9.68         | 13.01        | 12.29        | 12.61        | 11.01          | 11.40         | 9.39        | 10.99        | 11.57        | 11.70        | 12.22        | 9.20         | <b>11.51</b> |
| 11      | CoT 14367         | 14.23        |               | 8.88         | 12.68        | 11.61        | 9.29         | 10.87          | 13.10         | 8.10        | 11.45        | 10.36        | 7.28         | 6.42         | 9.92         | <b>10.32</b> |
| 12      | CoTl 14111        | 14.88        |               | 10.53        | 11.91        | 12.04        | 11.01        | 10.73          | 13.27         | 9.09        | 12.61        | 8.97         | 11.10        | 11.15        | 10.10        | <b>11.34</b> |
| 13      | CoVC 14062        | 15.46        |               | 11.25        | 13.22        | 12.75        | 11.15        | 11.55          | 13.39         | 9.97        | 10.91        | 9.90         | 11.59        | 12.14        | 10.93        | <b>11.86</b> |
| 14      | MS 14081          | 14.10        |               | 11.46        | 13.33        | 12.74        | 10.80        | 10.81          | 12.91         | 8.57        | 12.54        | 10.89        | 12.49        | 11.96        | 10.00        | <b>11.74</b> |
| 15      | MS 14082          | 13.70        |               | 11.50        | 12.90        | 12.71        | 10.81        | 11.40          | 13.18         | 9.73        | 12.54        | 11.06        | 11.17        | 9.99         | 11.16        | <b>11.68</b> |
|         | Standards         |              |               |              |              |              |              |                |               |             |              |              |              |              |              |              |
| 1       | Co 86032          | 14.58        |               | 11.00        | 13.12        | 13.35        | 11.09        | 10.70          | 13.31         | 11.02       | 12.83        | 11.01        | 12.51        | 12.00        | 10.62        | <b>12.09</b> |
| 2       | CoC 671           | 16.45        |               | 11.29        | 13.66        | 12.50        | 12.20        | 11.76          | 13.99         | 10.16       | 14.24        | 12.46        | 11.53        | 12.23        | 11.58        | <b>12.62</b> |
| 3       | CoSnk 05103       | 14.11        |               | 9.16         | 13.16        | 11.80        | 10.12        | 10.49          | 12.45         | 10.02       | 12.17        | 11.36        | 10.93        | 11.19        | 9.87         | <b>11.29</b> |
|         | <b>Grand Mean</b> | <b>14.55</b> |               | <b>10.53</b> | <b>13.11</b> | <b>12.57</b> | <b>11.09</b> | <b>10.86</b>   | <b>12.81</b>  | <b>9.72</b> | <b>12.43</b> | <b>11.17</b> | <b>11.66</b> | <b>11.42</b> | <b>10.26</b> | <b>11.71</b> |
|         | SE(m)             | 0.34         |               | 0.33         | 0.17         | 0.24         | 0.54         | 0.49           | 0.35          | 0.15        | 0.20         | 0.04         | 0.27         | 0.54         | 0.36         |              |
|         | CD                | 0.98         |               | 0.96         | 0.49         | 0.69         | 1.56         | N.S.           | 1.00          | 0.44        | 0.57         | 0.10         | 0.79         | 1.62         | 1.02         |              |
|         | CV                | 4.05         |               | 5.47         | 2.28         | 3.31         | 8.48         | 7.82           | 4.74          | 2.75        | 2.76         | 0.56         | 4.23         | 6.74         | 6.02         |              |

**Table 2.1.15 Sucrose % at 10 months**

| Sl. No. | Entries           | Coimbatore   | Basmat Inagar | Kolhapur     | Mandya       | Navasari     | Pedegon      | Perumalalle  | Pravara nagar | Pugalur      | Pune         | Rudrur       | Sameer wadi  | Sankeshwar   | Thiruvalla   | Mean         |
|---------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1       | Co 14002          | 17.77        |               | 16.38        | 18.22        | 16.74        | 16.29        | 16.11        | 19.16         | 11.26        | 19.34        | 17.41        | 16.66        | 18.17        | 17.05        | 16.97        |
| 2       | Co 14004          | 18.99        |               | 17.80        | 19.72        | 19.42        | 15.87        | 16.85        | 20.02         | 11.43        | 18.89        | 16.91        | 17.57        | 17.87        | 13.94        | 17.33        |
| 3       | Co 14012          | 17.59        |               | 18.43        | 19.63        | 18.90        | 18.13        | 16.88        | 18.47         | 11.23        | 18.61        | 19.07        | 18.03        | 18.18        | 16.75        | 17.68        |
| 4       | Co 14016          | 17.02        |               | 15.56        | 17.24        | 17.76        | 15.15        | 14.89        | 16.69         | 11.27        | 17.32        | 15.09        | 16.68        | 16.20        | 14.86        | 15.83        |
| 5       | Co 14027          | 18.10        |               | 16.68        | 18.58        | 18.88        | 16.05        | 16.29        | 19.09         | 12.34        | 16.66        | 18.07        | 16.52        | 18.82        | 13.17        | 16.87        |
| 6       | Co 14030          | 18.54        |               | 15.55        | 19.72        | 19.43        | 17.62        | 14.96        | 18.03         | 11.30        | 18.55        | 15.79        | 17.95        | 20.18        | 15.39        | 17.16        |
| 7       | Co 14032          | 19.89        |               | 17.57        | 19.58        | 18.87        | 16.00        | 15.44        | 19.45         | 12.29        | 18.61        | 16.18        | 16.35        | 15.72        | 14.85        | 16.98        |
| 8       | CoN 14073         | 15.68        |               | 13.81        | 16.58        | 16.32        | 14.65        | 13.82        | 16.87         | 10.43        | 14.26        | 15.13        | 12.16        | 14.02        | 13.48        | 14.40        |
| 9       | CoSnK 14102       | 16.47        |               | 14.39        | 18.27        | 18.40        | 16.12        | 15.55        | 17.59         | 11.82        | 16.39        | 16.19        | 17.23        | 14.88        | 14.24        | 15.96        |
| 10      | CoSnK 14103       | 17.95        |               | 15.37        | 18.30        | 17.50        | 17.99        | 15.95        | 17.20         | 11.01        | 15.74        | 16.69        | 17.00        | 17.58        | 13.48        | 16.29        |
| 11      | CoT 14367         | 17.03        |               | 14.18        | 17.84        | 16.81        | 13.79        | 15.76        | 17.94         | 9.72         | 16.19        | 15.28        | 11.16        | 10.19        | 14.55        | 14.65        |
| 12      | CoTI 14111        | 18.20        |               | 16.16        | 16.74        | 17.51        | 15.96        | 15.68        | 19.14         | 10.69        | 17.77        | 13.46        | 16.16        | 16.11        | 14.79        | 16.03        |
| 13      | CoVC 14062        | 18.71        |               | 16.90        | 18.60        | 18.32        | 16.17        | 16.71        | 18.78         | 11.44        | 15.78        | 14.64        | 16.76        | 17.36        | 16.00        | 16.63        |
| 14      | MS 14081          | 17.09        |               | 17.45        | 18.74        | 18.22        | 15.68        | 15.78        | 18.84         | 10.22        | 17.43        | 15.61        | 18.04        | 17.11        | 14.63        | 16.53        |
| 15      | MS 14082          | 16.66        |               | 17.33        | 18.20        | 18.31        | 15.63        | 16.59        | 18.84         | 11.39        | 17.58        | 16.04        | 16.19        | 14.61        | 16.31        | 16.44        |
|         | Standards         |              |               |              |              |              |              |              |               |              |              |              |              |              |              |              |
| 1       | Co 86032          | 18.16        |               | 16.97        | 18.41        | 19.11        | 16.06        | 15.55        | 19.15         | 12.51        | 17.84        | 16.02        | 18.10        | 17.29        | 15.55        | 16.98        |
| 2       | CoC 671           | 20.84        |               | 17.67        | 19.26        | 18.48        | 17.52        | 17.09        | 18.79         | 11.76        | 19.79        | 17.82        | 16.69        | 17.52        | 16.95        | 17.71        |
| 3       | CoSnk 05103       | 17.10        |               | 14.89        | 18.52        | 17.24        | 14.86        | 15.29        | 18.94         | 11.57        | 17.10        | 16.47        | 16.25        | 16.21        | 14.48        | 16.07        |
|         | <b>Grand Mean</b> | <b>17.88</b> |               | <b>16.28</b> | <b>18.45</b> | <b>18.12</b> | <b>16.09</b> | <b>15.84</b> | <b>18.50</b>  | <b>11.31</b> | <b>17.44</b> | <b>16.22</b> | <b>17.01</b> | <b>16.55</b> | <b>15.02</b> | <b>16.52</b> |
|         | SE(m)             | 0.54         |               | 0.36         | 0.23         | 0.29         | 0.67         | 0.52         | 0.42          | 0.16         | 0.24         | 0.05         | 0.16         | 0.71         | 0.52         |              |
|         | CD                | 1.56         |               | 1.04         | 0.65         | 0.83         | 1.93         | 1.50         | 1.21          | 0.45         | 0.69         | 0.14         | 0.46         | 2.11         | 1.48         |              |
|         | CV                | 5.25         |               | 3.84         | 2.13         | 2.75         | 7.22         | 5.70         | 3.91          | 2.38         | 2.39         | 0.51         | 1.71         | 6.05         | 6.00         |              |

**Table 2.1.16 Brix % at 10 months**

| Sl. No. | Entries           | Coimbatore   | Basmat Inagar | Kolhapur     | Mandya       | Navasari     | Pedegon      | Perumalalle  | Pravara nagar | Pugalur      | Pune         | Rudrur       | Sameer wadi  | Sankeshwar   | Thiruvalla   | Mean         |
|---------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1       | Co 14002          | 19.54        |               | 21.07        | 19.53        | 19.57        | 18.29        | 18.43        | 21.19         | 16.15        | 20.18        | 19.81        | 19.31        | 20.43        | 19.7         | 19.48        |
| 2       | Co 14004          | 20.74        |               | 21.27        | 20.9         | 21.5         | 18.05        | 19.23        | 21.35         | 15.94        | 19.73        | 19.11        | 20.19        | 20.18        | 16.2         | 19.57        |
| 3       | Co 14012          | 19.52        |               | 22.47        | 21           | 21.57        | 19.87        | 19.40        | 20.72         | 15.95        | 19.97        | 21.19        | 20.55        | 20.68        | 19.4         | 20.18        |
| 4       | Co 14016          | 19.23        |               | 21.37        | 18.53        | 19.9         | 17.33        | 17.20        | 18.85         | 15.8         | 18.49        | 17.41        | 19.03        | 18.18        | 17.2         | 18.35        |
| 5       | Co 14027          | 20.13        |               | 21.37        | 20.13        | 20.63        | 18.84        | 18.40        | 21.42         | 17.46        | 18.35        | 19.81        | 19.15        | 20.93        | 15.4         | 19.39        |
| 6       | Co 14030          | 20.55        |               | 20.27        | 21.07        | 21.33        | 19.74        | 17.03        | 19.85         | 16.22        | 19.99        | 18.21        | 17.04        | 22.43        | 17.8         | 19.35        |
| 7       | Co 14032          | 21.88        |               | 21.33        | 20.87        | 20.87        | 18.67        | 17.90        | 21.05         | 17.23        | 20.15        | 18.52        | 18.95        | 18.18        | 17.2         | 19.45        |
| 8       | CoN 14073         | 18.14        |               | 18.43        | 17.73        | 19           | 17.44        | 17.93        | 19.39         | 15.13        | 17.23        | 17.21        | 16.48        | 16.92        | 15.7         | 17.44        |
| 9       | CoSnK 14102       | 18.29        |               | 19.53        | 19.6         | 20.03        | 18.3         | 17.87        | 19.55         | 16.99        | 17.79        | 18.70        | 19.59        | 17.17        | 16.5         | 18.45        |
| 10      | CoSnK 14103       | 19.88        |               | 20.63        | 19.53        | 19.13        | 19.77        | 18.13        | 19.79         | 15.64        | 17.95        | 18.80        | 19.43        | 19.68        | 15.7         | 18.77        |
| 11      | CoT 14367         | 19.5         |               | 19.2         | 19.07        | 19.07        | 16.45        | 17.97        | 18.99         | 13.8         | 17.97        | 18.00        | 14.13        | 13.67        | 17           | 17.29        |
| 12      | CoTl 14111        | 20.38        |               | 20.5         | 17.87        | 20.07        | 18.15        | 18.17        | 21.39         | 15.12        | 19.59        | 16.40        | 18.55        | 18.18        | 17.2         | 18.58        |
| 13      | CoVC 14062        | 21.18        |               | 20.6         | 19.87        | 20.43        | 18.41        | 18.93        | 20.85         | 15.91        | 18.38        | 17.33        | 18.98        | 19.18        | 18.6         | 19.13        |
| 14      | MS 14081          | 19.32        |               | 21.83        | 20           | 20.13        | 17.88        | 18.23        | 20.82         | 14.6         | 18.63        | 17.33        | 20.35        | 18.93        | 17           | 18.85        |
| 15      | MS 14082          | 18.77        |               | 21.27        | 19.53        | 20.57        | 17.7         | 19.07        | 20.95         | 16.36        | 19.17        | 18.27        | 18.43        | 16.92        | 18.9         | 18.92        |
|         | Standards         |              |               |              |              |              |              |              |               |              |              |              |              |              |              |              |
| 1       | Co 86032          | 19.97        |               | 21.73        | 19.53        | 21.17        | 18.24        | 17.80        | 20.95         | 17.68        | 19.08        | 18.37        | 20.48        | 19.43        | 18.1         | 19.43        |
| 2       | CoC 671           | 22.53        |               | 23.17        | 20.67        | 21.9         | 19.52        | 19.57        | 20.95         | 16.77        | 21.17        | 19.70        | 18.93        | 19.43        | 19.7         | 20.31        |
| 3       | CoSnk 05103       | 19.33        |               | 20.73        | 19.8         | 19.93        | 17.36        | 17.60        | 19.72         | 16.35        | 18.75        | 18.73        | 19.44        | 18.43        | 16.9         | 18.70        |
|         | <b>Grand Mean</b> | <b>19.94</b> |               | <b>20.93</b> | <b>19.74</b> | <b>20.38</b> | <b>18.33</b> | <b>18.27</b> | <b>20.42</b>  | <b>16.06</b> | <b>19.03</b> | <b>18.49</b> | <b>19.62</b> | <b>18.83</b> | <b>17.44</b> | <b>19.04</b> |
|         | SE(m)             | 0.47         |               | 0.34         | 0.22         | 0.31         | 0.52         | 0.31         | 0.31          | 0.25         | 0.29         | 0.09         | 0.8          | 0.66         | 0.603        |              |
|         | CD                | 1.35         |               | 0.98         | 0.64         | 0.88         | 1.48         | 0.88         | 0.9           | 0.73         | 0.82         | 0.27         | 2.3          | 1.98         | 1.714        |              |
|         | CV                | 4.05         |               | 2.82         | 1.95         | 2.61         | 4.87         | 2.90         | 2.65          | 2.73         | 2.6          | 0.87         | 7.35         | 4.99         | 5.989        |              |

**Table 2.1.17 Purity % at 10 months**

| Sl. No. | Entries           | Coimbatore   | Basmat Inagar | Kolhapur     | Mandya       | Navasari     | Pedegaon     | Perumalalle  | Pravara nagar | Pugalur      | Pune         | Rudrur       | Sameer wadi  | Sankeshwar   | Thiruvalla   | Mean         |
|---------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1       | Co 14002          | 90.91        |               | 77.74        | 93.45        | 85.57        | 88.99        | 87.40        | 90.78         | 86.69        | 95.80        | 87.92        | 86.27        | 88.95        | 86.52        | 88.23        |
| 2       | Co 14004          | 91.57        |               | 83.70        | 94.53        | 90.35        | 87.76        | 87.60        | 92.51         | 89.57        | 95.75        | 88.49        | 87.01        | 88.58        | 86.21        | 89.51        |
| 3       | Co 14012          | 90.06        |               | 82.02        | 93.67        | 87.62        | 91.25        | 87.00        | 90.00         | 87.58        | 93.15        | 90.01        | 88.51        | 87.91        | 86.33        | 88.85        |
| 4       | Co 14016          | 88.49        |               | 72.88        | 93.23        | 89.26        | 87.34        | 86.60        | 88.27         | 88.86        | 93.65        | 86.66        | 87.67        | 89.19        | 86.37        | 87.57        |
| 5       | Co 14027          | 89.91        |               | 78.07        | 92.44        | 91.49        | 85.14        | 88.53        | 90.62         | 89.23        | 90.85        | 91.18        | 86.28        | 89.92        | 85.69        | 88.41        |
| 6       | Co 14030          | 90.19        |               | 76.73        | 93.79        | 91.09        | 89.25        | 87.87        | 90.52         | 86.64        | 92.81        | 86.74        | 87.89        | 89.95        | 86.32        | 88.45        |
| 7       | Co 14032          | 90.88        |               | 82.46        | 93.99        | 90.43        | 85.63        | 86.27        | 91.81         | 90.13        | 92.39        | 87.38        | 86.29        | 86.27        | 86.49        | 88.49        |
| 8       | CoN 14073         | 86.34        |               | 74.91        | 93.69        | 85.88        | 83.90        | 77.10        | 87.25         | 84.79        | 82.85        | 87.88        | 73.81        | 82.85        | 85.66        | 83.61        |
| 9       | CoSnK 14102       | 89.98        |               | 73.73        | 93.38        | 91.83        | 88.07        | 87.03        | 88.62         | 87.14        | 92.14        | 86.56        | 87.92        | 86.64        | 86.15        | 87.63        |
| 10      | CoSnK 14103       | 90.30        |               | 74.47        | 93.85        | 91.44        | 91.01        | 87.97        | 85.53         | 87.33        | 87.66        | 88.79        | 87.49        | 89.30        | 86.03        | 87.78        |
| 11      | CoT 14367         | 87.35        |               | 73.85        | 93.78        | 88.11        | 83.51        | 87.73        | 93.75         | 86.00        | 90.09        | 84.91        | 79.41        | 74.51        | 85.78        | 85.29        |
| 12      | CoTI 14111        | 89.25        |               | 78.84        | 93.93        | 87.24        | 87.95        | 86.33        | 90.13         | 87.37        | 90.77        | 82.09        | 87.38        | 88.50        | 86.13        | 87.38        |
| 13      | CoVC 14062        | 88.26        |               | 82.08        | 93.78        | 89.64        | 87.80        | 88.23        | 88.95         | 89.89        | 85.88        | 84.45        | 88.29        | 90.52        | 86.15        | 87.99        |
| 14      | MS 14081          | 88.47        |               | 79.88        | 93.89        | 90.54        | 87.67        | 86.53        | 90.82         | 86.01        | 93.57        | 90.04        | 88.64        | 90.39        | 86.25        | 88.67        |
| 15      | MS 14082          | 88.75        |               | 81.53        | 93.34        | 88.99        | 88.25        | 87.03        | 91.17         | 86.78        | 91.71        | 87.80        | 87.88        | 86.34        | 86.46        | 88.16        |
|         | Standards         |              |               |              |              |              |              |              |               |              |              |              |              |              |              |              |
| 1       | Co 86032          | 90.88        |               | 78.09        | 94.43        | 90.32        | 88.01        | 87.40        | 90.34         | 89.57        | 93.47        | 87.21        | 88.35        | 88.97        | 86.04        | 88.70        |
| 2       | CoC 671           | 92.50        |               | 76.26        | 93.40        | 84.38        | 89.71        | 87.37        | 89.66         | 87.84        | 93.47        | 90.47        | 88.20        | 90.13        | 86.17        | 88.43        |
| 3       | CoSnk 05103       | 88.44        |               | 71.85        | 93.74        | 86.56        | 85.47        | 86.93        | 89.46         | 88.55        | 91.27        | 87.92        | 85.90        | 87.93        | 85.86        | 86.91        |
|         | <b>Grand Mean</b> | <b>89.58</b> |               | <b>77.73</b> | <b>93.68</b> | <b>88.93</b> | <b>87.59</b> | <b>86.72</b> | <b>90.01</b>  | <b>87.77</b> | <b>91.52</b> | <b>87.58</b> | <b>87.48</b> | <b>87.60</b> | <b>86.14</b> | <b>87.87</b> |
|         | SE(m)             | 0.86         |               | 1.53         | 0.38         | 1.08         | 1.55         | 2.44         | 0.61          | 0.32         | 1.00         | 0.32         | 0.55         | 1.35         | 0.26         |              |
|         | CD                | 2.48         |               | 4.41         | 1.11         | 3.10         | 4.45         | N.S.         | 1.76          | 0.91         | 2.87         | 0.91         | 1.58         | 4.02         | NS           |              |
|         | CV                | 1.66         |               | 3.42         | 0.71         | 2.10         | 3.06         | 4.87         | 1.18          | 0.62         | 1.89         | 0.63         | 1.10         | 2.18         | 0.51         |              |

**Table 2.1.18 Pol % Cane at 10 month**

| Sl. No. | Entries           | Coimbatore | Basmat Inagar | Kolhapur | Mandya | Navasari     | Pedego n     | Peruna lapalle | Pravara nagar | Pugalur      | Pune | Rudrur | Sameer wadi | Sankesh war  | Thiruva illa | Mean         |
|---------|-------------------|------------|---------------|----------|--------|--------------|--------------|----------------|---------------|--------------|------|--------|-------------|--------------|--------------|--------------|
| 1       | Co 14002          |            |               |          |        | 12.88        | 12.46        |                |               | 14.00        |      |        |             | 14.28        |              | 13.41        |
| 2       | Co 14004          |            |               |          |        | 14.93        | 12.17        |                |               | 14.28        |      |        |             | 13.93        |              | 13.83        |
| 3       | Co 14012          |            |               |          |        | 14.51        | 13.83        |                |               | 13.97        |      |        |             | 14.22        |              | 14.13        |
| 4       | Co 14016          |            |               |          |        | 13.66        | 11.52        |                |               | 14.04        |      |        |             | 12.70        |              | 12.98        |
| 5       | Co 14027          |            |               |          |        | 14.51        | 11.99        |                |               | 15.58        |      |        |             | 14.52        |              | 14.15        |
| 6       | Co 14030          |            |               |          |        | 14.75        | 13.49        |                |               | 14.06        |      |        |             | 15.74        |              | 14.51        |
| 7       | Co 14032          |            |               |          |        | 14.31        | 12.49        |                |               | 15.53        |      |        |             | 12.34        |              | 13.67        |
| 8       | CoN 14073         |            |               |          |        | 12.55        | 11.25        |                |               | 12.83        |      |        |             | 10.99        |              | 11.91        |
| 9       | CoSnK 14102       |            |               |          |        | 14.09        | 12.17        |                |               | 14.81        |      |        |             | 11.49        |              | 13.14        |
| 10      | CoSnK 14103       |            |               |          |        | 13.32        | 13.60        |                |               | 13.66        |      |        |             | 13.43        |              | 13.50        |
| 11      | CoT 14367         |            |               |          |        | 12.83        | 10.64        |                |               | 11.87        |      |        |             | 8.22         |              | 10.89        |
| 12      | CoTl 14111        |            |               |          |        | 13.35        | 11.93        |                |               | 13.21        |      |        |             | 12.54        |              | 12.76        |
| 13      | CoVC 14062        |            |               |          |        | 13.98        | 12.43        |                |               | 14.30        |      |        |             | 13.82        |              | 13.63        |
| 14      | MS 14081          |            |               |          |        | 13.96        | 12.20        |                |               | 12.56        |      |        |             | 13.85        |              | 13.14        |
| 15      | MS 14082          |            |               |          |        | 14.06        | 11.82        |                |               | 14.20        |      |        |             | 11.72        |              | 12.95        |
|         | Standards         |            |               |          |        |              |              |                |               |              |      |        |             |              |              |              |
| 1       | Co 86032          |            |               |          |        | 14.70        | 12.38        |                |               | 15.84        |      |        |             | 13.62        |              | 14.14        |
| 2       | CoC 671           |            |               |          |        | 14.21        | 13.42        |                |               | 14.73        |      |        |             | 13.82        |              | 14.05        |
| 3       | CoSnk 05103       |            |               |          |        | 13.25        | 11.34        |                |               | 14.47        |      |        |             | 12.65        |              | 12.93        |
|         | <b>Grand Mean</b> |            |               |          |        | <b>13.88</b> | <b>12.29</b> |                |               | <b>14.10</b> |      |        |             | <b>12.99</b> |              | <b>13.32</b> |
|         | SE(m)             |            |               |          |        | 0.22         | 0.52         |                |               | 0.22         |      |        |             | 0.55         |              |              |
|         | CD                |            |               |          |        | 0.64         | 1.50         |                |               | 0.63         |      |        |             | 1.64         |              |              |
|         | CV                |            |               |          |        | 2.77         | 7.35         |                |               | 2.70         |      |        |             | 5.98         |              |              |

**Table 2.1.19 Fibre % at 10 month**

| Sl. No. | Entries           | Coimbatore | Basmat<br>Innagar | Kolhapur | Mandya | Navasari     | Pedegaon     | Perumalapalle | Pravara<br>nagar | Pugalur      | Pune | Rudrur | Sameer<br>wadi | Sankeshwar   | Thiruvala | Mean         |
|---------|-------------------|------------|-------------------|----------|--------|--------------|--------------|---------------|------------------|--------------|------|--------|----------------|--------------|-----------|--------------|
| 1       | Co 14002          |            |                   |          |        | 13.07        | 13.54        |               |                  | 12.21        |      |        |                | 11.44        |           | 12.57        |
| 2       | Co 14004          |            |                   |          |        | 13.11        | 13.37        |               |                  | 12.32        |      |        |                | 12.07        |           | 12.72        |
| 3       | Co 14012          |            |                   |          |        | 13.24        | 13.71        |               |                  | 12.21        |      |        |                | 11.80        |           | 12.74        |
| 4       | Co 14016          |            |                   |          |        | 13.13        | 14.01        |               |                  | 12.20        |      |        |                | 11.54        |           | 12.72        |
| 5       | Co 14027          |            |                   |          |        | 13.16        | 15.23        |               |                  | 12.24        |      |        |                | 12.86        |           | 13.37        |
| 6       | Co 14030          |            |                   |          |        | 14.09        | 13.45        |               |                  | 12.21        |      |        |                | 11.99        |           | 12.94        |
| 7       | Co 14032          |            |                   |          |        | 14.17        | 11.92        |               |                  | 12.38        |      |        |                | 11.39        |           | 12.47        |
| 8       | CoN 14073         |            |                   |          |        | 13.10        | 13.18        |               |                  | 12.48        |      |        |                | 11.61        |           | 12.59        |
| 9       | CoSnK 14102       |            |                   |          |        | 13.42        | 14.50        |               |                  | 12.28        |      |        |                | 12.78        |           | 13.25        |
| 10      | CoSnK 14103       |            |                   |          |        | 13.86        | 14.42        |               |                  | 12.25        |      |        |                | 13.57        |           | 13.53        |
| 11      | CoT 14367         |            |                   |          |        | 13.64        | 12.78        |               |                  | 12.32        |      |        |                | 9.31         |           | 12.01        |
| 12      | CoTI 14111        |            |                   |          |        | 13.77        | 15.27        |               |                  | 12.24        |      |        |                | 12.17        |           | 13.36        |
| 13      | CoVC 14062        |            |                   |          |        | 13.68        | 13.11        |               |                  | 12.50        |      |        |                | 10.41        |           | 12.43        |
| 14      | MS 14081          |            |                   |          |        | 13.36        | 12.17        |               |                  | 12.17        |      |        |                | 9.03         |           | 11.68        |
| 15      | MS 14082          |            |                   |          |        | 13.23        | 14.35        |               |                  | 12.57        |      |        |                | 9.74         |           | 12.47        |
|         | Standards         |            |                   |          |        |              |              |               |                  |              |      |        |                |              |           |              |
| 1       | Co 86032          |            |                   |          |        | 13.09        | 12.95        |               |                  | 12.24        |      |        |                | 11.26        |           | 12.39        |
| 2       | CoC 671           |            |                   |          |        | 13.13        | 13.39        |               |                  | 12.45        |      |        |                | 11.10        |           | 12.52        |
| 3       | CoSnk 05103       |            |                   |          |        | 13.13        | 13.71        |               |                  | 12.66        |      |        |                | 11.90        |           | 12.85        |
|         | <b>Grand Mean</b> |            |                   |          |        | <b>13.41</b> | <b>13.61</b> |               |                  | <b>12.32</b> |      |        |                | <b>11.44</b> |           | <b>12.70</b> |
|         | SE(m)             |            |                   |          |        | 0.14         | 0.41         |               |                  | 0.16         |      |        |                | 0.57         |           |              |
|         | CD                |            |                   |          |        | 0.40         | 1.16         |               |                  | 0.47         |      |        |                | 1.71         |           |              |
|         | CV                |            |                   |          |        | 1.81         | 5.15         |               |                  | 2.28         |      |        |                | 7.10         |           |              |

**Table 2.1.20 Extraction % at 10 month**

| Sl. No. | Entries           | Coimbatore   | Basmat hnagar | Kolhapur     | Mandya       | Navasari     | Pedeago n    | Peruma lapalle | Pravara nagar | Pugalur      | Pune | Rudrur | Sameer wadi | Sankesh war  | Thiruvalla   | Mean         |
|---------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|------|--------|-------------|--------------|--------------|--------------|
| 1       | Co 14002          | 50.16        |               | 60.05        | 53.27        | 56.52        | 48.67        | 56.60          | 46.27         | 51.85        |      |        |             | 60.61        | 51.93        | <b>53.59</b> |
| 2       | Co 14004          | 53.98        |               | 52.04        | 53.46        | 58.89        | 49.49        | 56.95          | 46.19         | 48.75        |      |        |             | 59.05        | 50.49        | <b>52.93</b> |
| 3       | Co 14012          | 52.18        |               | 58.06        | 52.53        | 55.82        | 40.31        | 58.18          | 42.68         | 52.64        |      |        |             | 56.16        | 58.16        | <b>52.67</b> |
| 4       | Co 14016          | 49.21        |               | 60.13        | 53.54        | 59.53        | 48.40        | 56.55          | 43.32         | 53.86        |      |        |             | 57.67        | 53.63        | <b>53.58</b> |
| 5       | Co 14027          | 48.99        |               | 46.64        | 48.32        | 58.81        | 43.14        | 50.48          | 45.87         | 47.99        |      |        |             | 51.47        | 52.52        | <b>49.42</b> |
| 6       | Co 14030          | 54.38        |               | 59.81        | 54.81        | 57.11        | 48.47        | 52.28          | 46.23         | 49.49        |      |        |             | 56.76        | 54.59        | <b>53.39</b> |
| 7       | Co 14032          | 52.99        |               | 51.04        | 52.16        | 55.18        | 43.90        | 44.00          | 48.48         | 53.50        |      |        |             | 57.71        | 54.07        | <b>51.30</b> |
| 8       | CoN 14073         | 54.59        |               | 55.10        | 51.80        | 60.07        | 36.71        | 53.07          | 48.76         | 50.62        |      |        |             | 60.06        | 54.32        | <b>52.51</b> |
| 9       | CoSnK 14102       | 43.75        |               | 54.79        | 44.43        | 59.24        | 34.05        | 55.10          | 48.21         | 51.87        |      |        |             | 50.17        | 54.35        | <b>49.60</b> |
| 10      | CoSnK 14103       | 48.73        |               | 51.51        | 48.08        | 57.67        | 42.56        | 52.78          | 44.98         | 47.57        |      |        |             | 56.49        | 54.93        | <b>50.53</b> |
| 11      | CoT 14367         | 55.73        |               | 54.55        | 55.83        | 55.30        | 40.22        | 56.42          | 43.73         | 51.06        |      |        |             | 60.21        | 53.34        | <b>52.64</b> |
| 12      | CoTl 14111        | 50.58        |               | 51.22        | 54.59        | 56.28        | 40.69        | 55.33          | 49.13         | 48.64        |      |        |             | 56.58        | 53.68        | <b>51.67</b> |
| 13      | CoVC 14062        | 57.44        |               | 63.14        | 53.29        | 59.77        | 46.61        | 51.76          | 41.77         | 53.96        |      |        |             | 63.34        | 53.42        | <b>54.45</b> |
| 14      | MS 14081          | 52.71        |               | 53.88        | 54.11        | 56.52        | 49.41        | 52.98          | 50.04         | 51.01        |      |        |             | 57.21        | 53.70        | <b>53.16</b> |
| 15      | MS 14082          | 50.37        |               | 54.12        | 49.57        | 57.30        | 54.35        | 56.19          | 44.42         | 52.32        |      |        |             | 58.24        | 54.89        | <b>53.18</b> |
|         | Standards         |              |               |              |              |              |              |                |               |              |      |        |             |              |              |              |
| 1       | Co 86032          | 52.83        |               | 48.83        | 50.22        | 57.12        | 53.39        | 54.52          | 47.99         | 53.22        |      |        |             | 58.04        | 53.55        | <b>52.97</b> |
| 2       | CoC 671           | 54.34        |               | 50.32        | 53.79        | 59.29        | 51.21        | 52.91          | 44.55         | 50.75        |      |        |             | 57.31        | 56.04        | <b>53.05</b> |
| 3       | CoSnk 05103       | 40.73        |               | 50.62        | 52.70        | 58.98        | 48.65        | 53.23          | 42.87         | 52.54        |      |        |             | 56.86        | 52.61        | <b>50.98</b> |
|         | <b>Grand Mean</b> | <b>51.32</b> |               | <b>54.21</b> | <b>52.03</b> | <b>57.74</b> | <b>45.57</b> | <b>53.85</b>   | <b>45.86</b>  | <b>51.20</b> |      |        |             | <b>57.44</b> | <b>53.90</b> | <b>52.31</b> |
|         | SE(m)             | 2.43         |               | 2.38         | 1.74         | 1.00         | 2.79         | 1.19           | 0.59          | 1.54         |      |        |             | 1.36         | 3.03         |              |
|         | CD                | 7.00         |               | 6.83         | 5.01         | 2.87         | 8.01         | 3.43           | 1.71          | 4.42         |      |        |             | 4.05         | NS           |              |
|         | CV                | 8.19         |               | 7.59         | 5.81         | 2.99         | 10.59        | 3.83           | 2.25          | 5.21         |      |        |             | 3.34         | 9.75         |              |



**Table 2.1.21 NMC ('000/ha) at 10 month**

| Sl. No. | Entries           | Coimbatore   | Basmat Inagar | Kolhapur | Mandya       | Navasari      | Pedego n     | Peruma lapalle | Pravara nagar | Pugalur       | Pune | Rudrur | Sameer wadi  | Sankesh war  | Thiruvilla    | Mean          |
|---------|-------------------|--------------|---------------|----------|--------------|---------------|--------------|----------------|---------------|---------------|------|--------|--------------|--------------|---------------|---------------|
| 1       | Co 14002          | 108.06       |               |          | 76.19        | 123.22        | 87.90        | 84.78          | 109.21        | 162.40        |      |        | 52.58        | 104.66       | 116.98        | 102.60        |
| 2       | Co 14004          | 88.61        |               |          | 72.71        | 126.42        | 87.77        | 93.56          | 108.47        | 137.04        |      |        | 70.52        | 98.75        | 124.38        | 100.82        |
| 3       | Co 14012          | 111.94       |               |          | 70.79        | 122.58        | 81.42        | 81.47          | 117.09        | 130.38        |      |        | 54.09        | 80.13        | 117.05        | 96.69         |
| 4       | Co 14016          | 135.93       |               |          | 80.07        | 133.25        | 91.35        | 109.65         | 119.69        | 186.53        |      |        | 77.55        | 90.39        | 120.68        | 114.51        |
| 5       | Co 14027          | 87.87        |               |          | 77.15        | 124.92        | 60.30        | 87.86          | 121.74        | 152.19        |      |        | 76.93        | 74.47        | 109.72        | 97.31         |
| 6       | Co 14030          | 87.04        |               |          | 68.53        | 113.95        | 86.05        | 92.48          | 119.51        | 145.70        |      |        | 78.40        | 85.00        | 111.80        | 98.85         |
| 7       | Co 14032          | 69.81        |               |          | 72.89        | 117.17        | 66.18        | 89.09          | 101.48        | 106.37        |      |        | 70.60        | 88.74        | 106.40        | 88.87         |
| 8       | CoN 14073         | 93.61        |               |          | 79.61        | 134.19        | 67.25        | 83.93          | 99.23         | 155.67        |      |        | 70.29        | 84.65        | 131.17        | 99.96         |
| 9       | CoSnK 14102       | 112.41       |               |          | 73.57        | 117.58        | 80.38        | 77.54          | 98.73         | 164.60        |      |        | 65.20        | 74.65        | 111.88        | 97.65         |
| 10      | CoSnK 14103       | 101.85       |               |          | 65.84        | 114.24        | 51.38        | 81.54          | 109.41        | 111.94        |      |        | 71.84        | 61.60        | 105.56        | 87.52         |
| 11      | CoT 14367         | 71.48        |               |          | 62.64        | 107.65        | 58.62        | 81.16          | 115.13        | 132.47        |      |        | 70.91        | 86.83        | 129.48        | 91.64         |
| 12      | CoTI 14111        | 112.04       |               |          | 77.78        | 126.15        | 73.28        | 87.32          | 106.46        | 148.71        |      |        | 60.53        | 93.61        | 108.34        | 99.42         |
| 13      | CoVC 14062        | 86.30        |               |          | 83.88        | 115.54        | 61.75        | 80.08          | 108.06        | 171.56        |      |        | 65.20        | 78.21        | 110.88        | 96.15         |
| 14      | MS 14081          | 94.17        |               |          | 74.58        | 104.96        | 64.81        | 82.47          | 118.91        | 133.17        |      |        | 67.75        | 89.52        | 96.14         | 92.65         |
| 15      | MS 14082          | 121.30       |               |          | 86.74        | 122.82        | 88.90        | 101.95         | 114.99        | 175.28        |      |        | 74.23        | 94.05        | 125.46        | 110.57        |
|         | Standards         |              |               |          |              |               |              |                |               |               |      |        |              |              |               |               |
| 1       | Co 86032          | 96.39        |               |          | 81.25        | 120.84        | 85.13        | 94.40          | 132.19        | 165.59        |      |        | 61.50        | 99.96        | 121.07        | 105.83        |
| 2       | CoC 671           | 78.61        |               |          | 66.52        | 112.61        | 56.25        | 75.23          | 121.16        | 167.66        |      |        | 67.13        | 75.60        | 113.27        | 93.40         |
| 3       | CoSnk 05103       | 142.13       |               |          | 90.14        | 123.60        | 112.60       | 117.27         | 120.11        | 163.35        |      |        | 50.85        | 95.44        | 110.80        | 112.63        |
|         | <b>Grand Mean</b> | <b>99.97</b> |               |          | <b>75.60</b> | <b>120.09</b> | <b>75.63</b> | <b>88.99</b>   | <b>113.42</b> | <b>150.59</b> |      |        | <b>67.00</b> | <b>86.46</b> | <b>115.06</b> | <b>101.28</b> |
|         | SE(m)             | 7.29         |               |          | 2.56         | 3.67          | 2.94         | 3.79           | 0.91          | 11.86         |      |        | 3.36         | 8.77         | 5.25          |               |
|         | CD                | 21.07        |               |          | 7.35         | 10.56         | 8.44         | 10.90          | 2.62          | 34.08         |      |        | 9.69         | 26.18        | 14.92         |               |
|         | CV                | 12.64        |               |          | 5.86         | 5.30          | 6.79         | 7.38           | 1.39          | 13.64         |      |        | 8.67         | 14.35        | 7.90          |               |

**Table 2.1.22 Stalk length (cm) at 10 month**

| Sl. No. | Entries           | Coimbatore    | Basmat hnagar | Kolhapur      | Mandya        | Navasari      | Pedego n      | Peruma lapalle | Pravara nagar | Pugalur       | Pune          | Rudrur | Sameer wadi   | Sankesh war   | Thiruva illa  | Mean          |
|---------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------|---------------|---------------|---------------|---------------|
| 1       | Co 14002          | 255.00        |               | 315.83        | 246.67        | 216.00        | 227.50        | 276.67         | 258.66        | 214.17        | 247.78        |        | 289.93        | 280.50        | 218.67        | <b>253.95</b> |
| 2       | Co 14004          | 223.33        |               | 272.50        | 222.67        | 224.33        | 230.00        | 308.33         | 157.66        | 216.23        | 232.89        |        | 303.40        | 261.50        | 235.00        | <b>240.65</b> |
| 3       | Co 14012          | 213.33        |               | 282.83        | 181.33        | 217.67        | 217.50        | 296.33         | 153.00        | 219.47        | 227.44        |        | 284.96        | 258.50        | 232.67        | <b>232.09</b> |
| 4       | Co 14016          | 218.33        |               | 229.00        | 192.00        | 253.67        | 210.00        | 323.33         | 142.00        | 214.37        | 247.00        |        | 286.70        | 216.00        | 227.33        | <b>229.98</b> |
| 5       | Co 14027          | 230.00        |               | 272.00        | 218.00        | 255.00        | 211.50        | 342.67         | 208.33        | 260.60        | 230.78        |        | 268.36        | 228.50        | 210.33        | <b>244.67</b> |
| 6       | Co 14030          | 230.00        |               | 285.50        | 186.67        | 220.00        | 210.00        | 328.33         | 201.00        | 224.07        | 218.00        |        | 244.06        | 194.50        | 223.33        | <b>230.46</b> |
| 7       | Co 14032          | 265.00        |               | 273.50        | 218.67        | 208.33        | 220.00        | 330.33         | 210.66        | 236.40        | 218.11        |        | 288.16        | 259.00        | 258.67        | <b>248.90</b> |
| 8       | CoN 14073         | 261.67        |               | 289.67        | 262.00        | 278.33        | 255.00        | 384.67         | 228.66        | 249.20        | 269.34        |        | 327.03        | 294.00        | 263.33        | <b>280.24</b> |
| 9       | CoSnK 14102       | 275.00        |               | 300.00        | 254.00        | 226.67        | 220.00        | 315.00         | 216.00        | 219.77        | 235.00        |        | 325.33        | 258.00        | 240.67        | <b>257.12</b> |
| 10      | CoSnK 14103       | 258.33        |               | 307.50        | 222.00        | 255.00        | 215.00        | 325.00         | 231.00        | 237.37        | 243.45        |        | 294.06        | 271.00        | 259.67        | <b>259.95</b> |
| 11      | CoT 14367         | 226.67        |               | 269.67        | 196.00        | 211.67        | 195.00        | 318.33         | 186.00        | 184.00        | 204.89        |        | 268.80        | 238.00        | 239.33        | <b>228.20</b> |
| 12      | CoTl 14111        | 243.33        |               | 326.17        | 217.33        | 238.33        | 220.00        | 324.33         | 228.66        | 239.27        | 243.67        |        | 296.20        | 307.50        | 265.67        | <b>262.54</b> |
| 13      | CoVC 14062        | 221.67        |               | 273.00        | 242.00        | 241.67        | 212.50        | 327.67         | 197.00        | 203.20        | 236.78        |        | 278.73        | 285.00        | 242.00        | <b>246.77</b> |
| 14      | MS 14081          | 235.00        |               | 285.67        | 232.67        | 210.00        | 240.00        | 316.67         | 223.33        | 225.23        | 239.22        |        | 303.33        | 272.00        | 237.00        | <b>251.68</b> |
| 15      | MS 14082          | 236.67        |               | 292.17        | 250.67        | 235.00        | 217.50        | 313.33         | 228.00        | 251.23        | 242.56        |        | 302.20        | 233.50        | 283.00        | <b>257.15</b> |
|         | Standards         |               |               |               |               |               |               |                |               |               |               |        |               |               |               |               |
| 1       | Co 86032          | 223.33        |               | 267.50        | 246.67        | 215.00        | 230.00        | 336.67         | 199.33        | 251.23        | 196.33        |        | 288.33        | 267.00        | 219.33        | <b>245.06</b> |
| 2       | CoC 671           | 268.33        |               | 261.83        | 222.00        | 218.33        | 200.00        | 317.00         | 181.66        | 254.97        | 208.00        |        | 325.50        | 252.00        | 222.00        | <b>244.30</b> |
| 3       | CoSnk 05103       | 230.00        |               | 319.00        | 226.00        | 231.67        | 245.00        | 424.00         | 196.66        | 253.87        | 236.22        |        | 335.23        | 277.00        | 276.67        | <b>270.94</b> |
|         | <b>Grand Mean</b> | <b>239.72</b> |               | <b>284.63</b> | <b>224.30</b> | <b>230.93</b> | <b>220.92</b> | <b>328.26</b>  | <b>202.64</b> | <b>230.81</b> | <b>232.08</b> |        | <b>316.35</b> | <b>228.42</b> | <b>241.93</b> | <b>248.42</b> |
|         | SE(m)             | 12.36         |               | 16.03         | 4.90          | 5.23          | 5.26          | 7.78           | 1.42          | 10.21         | 11.21         |        | 12.61         | 10.09         | 10.15         |               |
|         | CD                | 35.68         |               | 46.08         | 14.08         | 15.02         | 15.13         | 22.36          | 4.09          | 29.35         | 32.23         |        | 36.39         | 30.10         | 28.86         |               |
|         | CV                | 8.93          |               | 9.76          | 3.78          | 3.92          | 4.12          | 4.10           | 1.21          | 7.66          | 8.30          |        | 7.40          | 6.25          | 7.27          |               |

**Table 2.1.23 Stalk diameter (cm) at 10 month**

| Sl. No. | Entries           | Coimbatore  | Basmat Inagar | Kolhapur    | Mandya      | Navasari    | Pedego      | Perumalpal  | Pravara nagar | Pugalur     | Pune        | Rudrur | Sameerwadi  | Sankeshwar  | Thiruvalla  | Mean        |
|---------|-------------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|--------|-------------|-------------|-------------|-------------|
| 1       | Co 14002          | 2.74        |               | 2.51        | 2.65        | 2.48        | 2.79        | 2.63        | 2.53          | 2.73        | 2.93        |        | 2.67        | 2.72        | 1.88        | 2.61        |
| 2       | Co 14004          | 2.76        |               | 2.65        | 2.76        | 2.53        | 2.82        | 2.63        | 2.45          | 2.37        | 2.63        |        | 2.81        | 2.63        | 1.91        | 2.58        |
| 3       | Co 14012          | 2.81        |               | 2.65        | 2.58        | 2.47        | 2.69        | 2.83        | 2.43          | 2.54        | 2.94        |        | 2.75        | 2.52        | 2.35        | 2.63        |
| 4       | Co 14016          | 2.68        |               | 2.57        | 2.55        | 2.56        | 2.63        | 2.53        | 2.51          | 2.64        | 2.80        |        | 2.90        | 2.45        | 2.34        | 2.60        |
| 5       | Co 14027          | 2.94        |               | 2.59        | 2.95        | 2.54        | 2.95        | 2.97        | 2.55          | 2.66        | 3.27        |        | 2.92        | 2.78        | 1.75        | 2.74        |
| 6       | Co 14030          | 2.96        |               | 2.64        | 2.68        | 2.51        | 2.63        | 2.87        | 2.43          | 2.64        | 2.64        |        | 2.73        | 2.55        | 2.29        | 2.63        |
| 7       | Co 14032          | 3.01        |               | 2.54        | 2.99        | 2.29        | 3.00        | 2.67        | 2.44          | 2.60        | 2.86        |        | 2.84        | 2.43        | 2.36        | 2.67        |
| 8       | CoN 14073         | 3.06        |               | 2.69        | 2.66        | 2.67        | 2.63        | 3.07        | 2.42          | 2.85        | 3.08        |        | 2.82        | 2.73        | 2.33        | 2.75        |
| 9       | CoSnK 14102       | 2.55        |               | 2.58        | 2.51        | 2.56        | 2.47        | 2.90        | 2.38          | 2.09        | 2.54        |        | 2.59        | 2.42        | 1.87        | 2.46        |
| 10      | CoSnK 14103       | 2.89        |               | 2.81        | 2.77        | 2.51        | 2.69        | 3.00        | 2.47          | 2.93        | 3.13        |        | 2.89        | 2.63        | 2.34        | 2.76        |
| 11      | CoT 14367         | 3.14        |               | 2.98        | 3.01        | 2.34        | 2.95        | 2.97        | 2.41          | 2.70        | 3.33        |        | 3.12        | 2.98        | 2.43        | 2.86        |
| 12      | CoTI 14111        | 2.76        |               | 2.71        | 2.68        | 2.53        | 3.06        | 2.90        | 2.48          | 2.61        | 3.01        |        | 2.90        | 2.59        | 2.62        | 2.74        |
| 13      | CoVC 14062        | 3.09        |               | 3.12        | 2.69        | 2.50        | 3.03        | 2.63        | 2.37          | 2.79        | 3.22        |        | 2.99        | 2.89        | 2.43        | 2.81        |
| 14      | MS 14081          | 2.79        |               | 2.86        | 2.74        | 2.38        | 3.03        | 2.90        | 2.49          | 2.73        | 3.06        |        | 2.95        | 2.63        | 2.20        | 2.73        |
| 15      | MS 14082          | 2.86        |               | 2.76        | 2.64        | 2.50        | 2.69        | 2.70        | 2.52          | 2.67        | 2.96        |        | 2.71        | 2.53        | 2.45        | 2.67        |
|         | Standards         |             |               |             |             |             |             |             |               |             |             |        |             |             |             |             |
| 1       | Co 86032          | 2.89        |               | 2.58        | 2.73        | 2.35        | 2.92        | 2.83        | 2.48          | 2.76        | 2.96        |        | 2.98        | 2.65        | 2.05        | 2.68        |
| 2       | CoC 671           | 3.04        |               | 2.73        | 2.96        | 2.61        | 2.98        | 2.60        | 2.46          | 2.85        | 3.00        |        | 2.89        | 2.97        | 2.74        | 2.82        |
| 3       | CoSnk 05103       | 2.38        |               | 2.46        | 2.44        | 2.56        | 2.47        | 2.63        | 2.28          | 2.44        | 2.71        |        | 2.57        | 2.59        | 1.85        | 2.45        |
|         | <b>Grand Mean</b> | <b>2.85</b> |               | <b>2.69</b> | <b>2.72</b> | <b>2.49</b> | <b>2.80</b> | <b>2.79</b> | <b>2.45</b>   | <b>2.64</b> | <b>2.95</b> |        | <b>2.81</b> | <b>2.65</b> | <b>2.23</b> | <b>2.67</b> |
|         | SE(m)             | 0.11        |               | 0.09        | 0.08        | 0.02        | 0.08        | 0.07        | 0.02          | 0.11        | 0.08        |        | 0.07        | 0.08        | 0.12        |             |
|         | CD                | 0.31        |               | 0.25        | 0.22        | 0.07        | 0.23        | 0.21        | 0.06          | 0.31        | 0.23        |        | 0.22        | 0.24        | 0.34        |             |
|         | CV                | 6.43        |               | 5.68        | 4.83        | 1.61        | 4.98        | 4.48        | 1.64          | 7.05        | 4.70        |        | 4.73        | 4.21        | 9.39        |             |

**Table 2.1.24 Single Cane Weight (kg) at 10 month**

| Sl. No. | Entries           | Coimbatore  | Basmat<br>hnagar | Kolhapur    | Mandiya     | Navasari    | Pedegaon    | Perumalapalle | Pravaranaagar | Pugalur     | Pune        | Rudrur | Sameerwadi  | Sankeshwar  | Thiruvalla  | Mean        |
|---------|-------------------|-------------|------------------|-------------|-------------|-------------|-------------|---------------|---------------|-------------|-------------|--------|-------------|-------------|-------------|-------------|
| 1       | Co 14002          | 1.07        |                  | 1.36        | 1.20        | 0.97        | 1.30        | 1.11          | 1.42          | 1.17        | 1.21        |        | 1.36        | 1.93        | 0.92        | 1.25        |
| 2       | Co 14004          | 1.05        |                  | 1.41        | 1.25        | 1.09        | 1.28        | 1.22          | 1.15          | 1.13        | 1.22        |        | 1.46        | 1.72        | 0.83        | 1.23        |
| 3       | Co 14012          | 1.09        |                  | 1.46        | 0.85        | 0.98        | 1.41        | 1.40          | 1.03          | 1.30        | 0.97        |        | 1.39        | 1.55        | 1.11        | 1.21        |
| 4       | Co 14016          | 1.00        |                  | 1.26        | 0.97        | 1.03        | 1.24        | 1.21          | 1.17          | 1.27        | 1.04        |        | 1.37        | 1.20        | 1.04        | 1.15        |
| 5       | Co 14027          | 1.54        |                  | 1.33        | 1.37        | 1.02        | 1.56        | 1.85          | 1.29          | 1.23        | 1.10        |        | 1.34        | 1.71        | 0.85        | 1.35        |
| 6       | Co 14030          | 1.33        |                  | 1.40        | 1.04        | 0.95        | 1.24        | 1.64          | 1.35          | 1.31        | 1.03        |        | 1.17        | 1.16        | 1.13        | 1.23        |
| 7       | Co 14032          | 1.78        |                  | 1.43        | 1.37        | 0.85        | 1.70        | 1.48          | 1.57          | 1.24        | 1.45        |        | 1.49        | 1.51        | 1.18        | 1.42        |
| 8       | CoN 14073         | 1.63        |                  | 1.63        | 1.30        | 1.15        | 1.93        | 1.82          | 1.62          | 1.32        | 1.34        |        | 1.63        | 1.92        | 1.24        | 1.54        |
| 9       | CoSnK 14102       | 1.42        |                  | 1.39        | 1.31        | 0.98        | 1.18        | 1.50          | 1.48          | 1.20        | 1.19        |        | 1.65        | 1.48        | 0.88        | 1.31        |
| 10      | CoSnK 14103       | 1.39        |                  | 1.97        | 1.28        | 0.95        | 1.88        | 1.87          | 1.29          | 1.29        | 1.07        |        | 1.48        | 2.09        | 1.19        | 1.48        |
| 11      | CoT 14367         | 1.60        |                  | 1.73        | 1.36        | 0.83        | 1.70        | 1.66          | 1.09          | 1.25        | 1.19        |        | 1.49        | 1.87        | 1.20        | 1.41        |
| 12      | CoTI 14111        | 1.24        |                  | 1.68        | 1.05        | 1.02        | 1.60        | 1.43          | 1.52          | 1.29        | 1.36        |        | 1.47        | 1.81        | 1.20        | 1.39        |
| 13      | CoVC 14062        | 1.38        |                  | 1.72        | 1.31        | 1.00        | 1.39        | 1.82          | 0.98          | 1.24        | 1.28        |        | 1.52        | 2.10        | 1.17        | 1.41        |
| 14      | MS 14081          | 1.47        |                  | 1.58        | 1.27        | 0.87        | 1.54        | 1.22          | 1.79          | 1.29        | 1.48        |        | 1.57        | 1.82        | 1.10        | 1.42        |
| 15      | MS 14082          | 1.42        |                  | 1.60        | 1.33        | 0.98        | 1.42        | 1.45          | 1.20          | 1.29        | 1.27        |        | 1.40        | 1.46        | 1.55        | 1.36        |
|         | Standards         |             |                  |             |             |             |             |               |               |             |             |        |             |             |             |             |
| 1       | Co 86032          | 1.22        |                  | 1.32        | 1.33        | 0.93        | 1.57        | 1.59          | 1.33          | 1.24        | 1.04        |        | 1.54        | 1.70        | 1.02        | 1.32        |
| 2       | CoC 671           | 1.77        |                  | 1.54        | 1.43        | 1.05        | 1.60        | 1.47          | 1.11          | 1.27        | 1.19        |        | 1.62        | 2.03        | 1.31        | 1.45        |
| 3       | CoSnk 05103       | 0.79        |                  | 1.19        | 0.87        | 1.08        | 0.88        | 1.19          | 1.06          | 1.14        | 0.92        |        | 1.27        | 1.62        | 0.88        | 1.07        |
|         | <b>Grand Mean</b> | <b>1.34</b> |                  | <b>1.50</b> | <b>1.22</b> | <b>0.99</b> | <b>1.47</b> | <b>1.50</b>   | <b>1.30</b>   | <b>1.24</b> | <b>1.19</b> |        | <b>1.46</b> | <b>1.70</b> | <b>1.10</b> | <b>1.33</b> |
|         | SE(m)             | 0.10        |                  | 0.10        | 0.07        | 0.05        | 0.11        | 0.05          | 0.01          | 0.63        | 0.04        |        | 0.08        | 0.14        | 0.05        |             |
|         | CD                | 0.29        |                  | 0.28        | 0.20        | 0.14        | 0.32        | 0.14          | 0.04          | 0.18        | 0.11        |        | 0.22        | 0.41        | 0.16        |             |
|         | CV                | 12.29       |                  | 11.23       | 10.03       | 8.35        | 13.04       | 5.48          | 2.26          | 8.71        | 5.76        |        | 9.00        | 11.30       | 8.56        |             |

**Table 2.1.25 Stalk Length (cm) at 8 month**

| Sl. No. | Entries           | Coimbatore    | Basmat hnagar | Kolhapur | Mandya        | Navasari      | Pedego n      | Peruma lapalle | Pravara nagar | Pugalur       | Pune          | Rudrur | Sameer wadi   | Sankeshwar    | Thiruvala | Mean          |
|---------|-------------------|---------------|---------------|----------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------|---------------|---------------|-----------|---------------|
| 1       | Co 14002          | 181.67        |               |          | 226.00        | 184.00        | 194.00        | 286.67         | 246.66        | 203.03        | 184.42        |        | 287.53        | 208.50        |           | 220.25        |
| 2       | Co 14004          | 188.33        |               |          | 211.33        | 205.67        | 186.50        | 268.33         | 144.33        | 202.60        | 186.64        |        | 302.46        | 209.00        |           | 210.52        |
| 3       | Co 14012          | 171.67        |               |          | 154.67        | 197.67        | 170.00        | 251.67         | 138.33        | 215.30        | 158.44        |        | 282.60        | 168.50        |           | 190.88        |
| 4       | Co 14016          | 141.67        |               |          | 158.67        | 233.33        | 162.50        | 271.67         | 131.00        | 205.80        | 165.97        |        | 300.73        | 148.50        |           | 191.98        |
| 5       | Co 14027          | 175.00        |               |          | 195.33        | 230.00        | 162.50        | 303.33         | 184.66        | 247.33        | 142.78        |        | 268.40        | 163.00        |           | 207.23        |
| 6       | Co 14030          | 188.33        |               |          | 174.00        | 200.00        | 178.00        | 296.67         | 176.33        | 218.43        | 162.68        |        | 235.13        | 143.00        |           | 197.26        |
| 7       | Co 14032          | 211.67        |               |          | 206.67        | 178.33        | 192.00        | 353.33         | 195.33        | 229.33        | 168.56        |        | 283.66        | 189.50        |           | 220.84        |
| 8       | CoN 14073         | 161.67        |               |          | 218.00        | 248.33        | 209.00        | 343.33         | 213.66        | 239.57        | 191.01        |        | 327.40        | 205.50        |           | 235.75        |
| 9       | CoSnK 14102       | 201.67        |               |          | 234.67        | 195.00        | 191.00        | 281.67         | 211.33        | 200.23        | 185.33        |        | 325.66        | 171.50        |           | 219.81        |
| 10      | CoSnK 14103       | 195.00        |               |          | 202.00        | 236.67        | 200.00        | 288.33         | 205.66        | 220.93        | 144.02        |        | 291.66        | 180.50        |           | 216.48        |
| 11      | CoT 14367         | 203.33        |               |          | 179.33        | 190.00        | 158.00        | 261.67         | 174.33        | 175.10        | 133.01        |        | 242.93        | 168.50        |           | 188.62        |
| 12      | CoTI 14111        | 218.33        |               |          | 190.67        | 225.00        | 170.50        | 298.33         | 205.66        | 224.07        | 170.46        |        | 293.06        | 184.50        |           | 218.06        |
| 13      | CoVC 14062        | 186.67        |               |          | 207.33        | 213.33        | 175.00        | 300.00         | 183.33        | 191.20        | 159.12        |        | 281.13        | 184.50        |           | 208.16        |
| 14      | MS 14081          | 180.00        |               |          | 209.33        | 191.67        | 195.50        | 301.67         | 216.00        | 219.73        | 186.12        |        | 300.33        | 249.00        |           | 224.93        |
| 15      | MS 14082          | 203.33        |               |          | 214.00        | 214.00        | 167.00        | 291.67         | 205.66        | 240.10        | 216.00        |        | 330.73        | 181.00        |           | 226.35        |
|         | Standards         |               |               |          |               |               |               |                |               |               |               |        |               |               |           |               |
| 1       | Co 86032          | 158.33        |               |          | 223.33        | 190.00        | 190.50        | 300.00         | 186.66        | 237.00        | 139.99        |        | 274.66        | 194.00        |           | 209.45        |
| 2       | CoC 671           | 173.33        |               |          | 198.67        | 201.67        | 173.00        | 278.33         | 169.00        | 241.90        | 142.32        |        | 334.33        | 184.50        |           | 209.71        |
| 3       | CoSnk 05103       | 193.33        |               |          | 204.33        | 216.67        | 194.00        | 331.67         | 184.66        | 246.33        | 160.34        |        | 361.66        | 189.50        |           | 228.25        |
|         | <b>Grand Mean</b> | <b>185.19</b> |               |          | <b>200.46</b> | <b>208.41</b> | <b>181.61</b> | <b>294.91</b>  | <b>187.35</b> | <b>219.89</b> | <b>166.51</b> |        | <b>323.55</b> | <b>184.61</b> |           | <b>215.25</b> |
|         | SE(m)             | 11.17         |               |          | 4.60          | 6.13          | 6.05          | 12.77          | 2.75          | 10.14         | 5.06          |        | 16.46         | 11.17         |           |               |
|         | CD                | 32.23         |               |          | 13.23         | 17.60         | 17.39         | 36.72          | 7.92          | 29.14         | 14.53         |        | 47.53         | 33.33         |           |               |
|         | CV                | 10.44         |               |          | 3.98          | 5.09          | 5.69          | 7.50           | 2.55          | 7.99          | 5.26          |        | 9.64          | 8.56          |           |               |

**Table 2.1.26 Stalk diameter (cm) at 8 month**

| Sl. No. | Entries           | Coimbatore  | Basmat Imagar | Kolhapur | Mandya      | Navasari    | Pedego n    | Peruma lapalle | Pravara nagar | Pugalur     | Pune        | Rudrur | Sameer wadi | Sankesh war | Thiruva illa | Mean        |
|---------|-------------------|-------------|---------------|----------|-------------|-------------|-------------|----------------|---------------|-------------|-------------|--------|-------------|-------------|--------------|-------------|
| 1       | Co 14002          | 2.58        |               |          | 2.41        | 2.44        | 2.26        | 2.43           | 2.42          | 2.55        | 2.90        |        | 2.79        | 2.83        |              | 2.56        |
| 2       | Co 14004          | 2.63        |               |          | 2.61        | 2.49        | 2.28        | 2.47           | 2.38          | 2.13        | 2.91        |        | 2.86        | 2.72        |              | 2.55        |
| 3       | Co 14012          | 2.79        |               |          | 2.41        | 2.43        | 2.21        | 2.57           | 2.31          | 2.32        | 2.88        |        | 2.93        | 2.76        |              | 2.56        |
| 4       | Co 14016          | 2.61        |               |          | 2.43        | 2.51        | 2.25        | 2.40           | 2.37          | 2.44        | 2.82        |        | 3.01        | 2.54        |              | 2.54        |
| 5       | Co 14027          | 3.00        |               |          | 2.77        | 2.49        | 2.37        | 2.77           | 2.47          | 2.49        | 3.15        |        | 3.12        | 3.15        |              | 2.78        |
| 6       | Co 14030          | 2.88        |               |          | 2.28        | 2.45        | 2.32        | 2.60           | 2.34          | 2.47        | 2.92        |        | 2.87        | 2.83        |              | 2.60        |
| 7       | Co 14032          | 2.96        |               |          | 2.51        | 2.28        | 2.29        | 2.40           | 2.38          | 2.44        | 3.38        |        | 2.96        | 2.68        |              | 2.63        |
| 8       | CoN 14073         | 2.96        |               |          | 2.51        | 2.63        | 2.29        | 2.70           | 2.30          | 2.60        | 2.95        |        | 2.97        | 2.66        |              | 2.66        |
| 9       | CoSnK 14102       | 2.98        |               |          | 2.37        | 2.53        | 2.01        | 2.60           | 2.32          | 1.88        | 2.69        |        | 2.67        | 2.53        |              | 2.46        |
| 10      | CoSnK 14103       | 3.02        |               |          | 2.58        | 2.46        | 2.41        | 2.70           | 2.36          | 2.73        | 3.11        |        | 3.06        | 3.08        |              | 2.75        |
| 11      | CoT 14367         | 2.34        |               |          | 2.99        | 2.30        | 2.76        | 2.63           | 2.41          | 2.50        | 3.40        |        | 3.42        | 3.33        |              | 2.81        |
| 12      | CoTl 14111        | 2.54        |               |          | 2.46        | 2.50        | 2.46        | 2.50           | 2.42          | 2.38        | 3.25        |        | 2.90        | 2.71        |              | 2.61        |
| 13      | CoVC 14062        | 2.73        |               |          | 2.56        | 2.46        | 2.48        | 2.33           | 2.27          | 2.55        | 3.46        |        | 3.12        | 2.96        |              | 2.69        |
| 14      | MS 14081          | 3.11        |               |          | 2.55        | 2.35        | 2.44        | 2.53           | 2.49          | 2.59        | 3.21        |        | 3.08        | 2.96        |              | 2.73        |
| 15      | MS 14082          | 3.02        |               |          | 2.37        | 2.45        | 2.27        | 2.47           | 2.46          | 2.46        | 2.76        |        | 2.79        | 2.73        |              | 2.58        |
|         | Standards         |             |               |          |             |             |             |                |               |             |             |        |             |             |              |             |
| 1       | Co 86032          | 2.74        |               |          | 2.63        | 2.31        | 2.46        | 2.60           | 2.39          | 2.58        | 2.84        |        | 3.08        | 2.73        |              | 2.64        |
| 2       | CoC 671           | 2.87        |               |          | 2.81        | 2.56        | 2.63        | 2.40           | 2.37          | 2.64        | 3.25        |        | 2.90        | 3.18        |              | 2.76        |
| 3       | CoSnk 05103       | 2.73        |               |          | 2.13        | 2.53        | 1.79        | 2.37           | 2.16          | 2.23        | 2.76        |        | 2.56        | 2.85        |              | 2.41        |
|         | <b>Grand Mean</b> | <b>2.80</b> |               |          | <b>2.52</b> | <b>2.45</b> | <b>2.33</b> | <b>2.53</b>    | <b>2.36</b>   | <b>2.44</b> | <b>3.04</b> |        | <b>2.85</b> | <b>2.84</b> |              | <b>2.62</b> |
|         | SE(m)             | 0.13        |               |          | 0.08        | 0.02        | 0.08        | 0.09           | 0.02          | 0.10        | 0.07        |        | 0.11        | 0.09        |              |             |
|         | CD                | 0.37        |               |          | 0.22        | 0.07        | 0.22        | N.S.           | 0.07          | 0.29        | 0.20        |        | 0.32        | 0.26        |              |             |
|         | CV                | 7.83        |               |          | 5.35        | 1.71        | 5.74        | 6.27           | 1.79          | 7.25        | 4.05        |        | 6.56        | 4.26        |              |             |

**Table 2.1.27 Single Cane Weight (kg) at 8 month**

| Sl. No. | Entries           | Coimbatore  | Basmat Inagar | Kolhapur    | Mandya      | Navasari    | Pedego n    | Peruma lapalle | Pravara nagar | Pugalur     | Pune        | Rudrur | Sameer wadi | Sankesh war | Thiruva illa | Mean        |
|---------|-------------------|-------------|---------------|-------------|-------------|-------------|-------------|----------------|---------------|-------------|-------------|--------|-------------|-------------|--------------|-------------|
| 1       | Co 14002          | 0.75        |               | 1.36        | 1.05        | 0.95        | 1.06        | 0.97           | 1.07          | 1.03        | 1.15        |        | 1.21        | 1.28        |              | 1.08        |
| 2       | Co 14004          | 0.84        |               | 1.41        | 1.17        | 1.05        | 0.97        | 1.07           | 1.02          | 0.99        | 1.15        |        | 1.43        | 1.55        |              | 1.15        |
| 3       | Co 14012          | 0.82        |               | 1.46        | 0.77        | 0.96        | 1.00        | 1.13           | 0.80          | 1.12        | 0.91        |        | 1.24        | 1.07        |              | 1.03        |
| 4       | Co 14016          | 0.72        |               | 1.26        | 0.81        | 0.97        | 1.09        | 1.07           | 0.91          | 1.13        | 0.99        |        | 1.18        | 0.85        |              | 1.00        |
| 5       | Co 14027          | 1.10        |               | 1.33        | 1.17        | 0.93        | 1.20        | 1.37           | 1.08          | 1.06        | 1.02        |        | 1.16        | 1.39        |              | 1.16        |
| 6       | Co 14030          | 0.95        |               | 1.40        | 0.88        | 0.91        | 0.86        | 1.28           | 1.14          | 1.16        | 0.97        |        | 1.15        | 1.00        |              | 1.06        |
| 7       | Co 14032          | 1.25        |               | 1.43        | 1.09        | 0.82        | 1.33        | 1.22           | 1.22          | 1.10        | 1.31        |        | 1.36        | 1.14        |              | 1.21        |
| 8       | CoN 14073         | 1.00        |               | 1.63        | 1.17        | 1.12        | 1.45        | 1.56           | 1.33          | 1.11        | 1.15        |        | 1.29        | 1.22        |              | 1.28        |
| 9       | CoSnK 14102       | 1.25        |               | 1.39        | 1.19        | 1.00        | 0.84        | 1.32           | 1.24          | 0.95        | 1.14        |        | 1.39        | 1.07        |              | 1.16        |
| 10      | CoSnK 14103       | 1.20        |               | 1.97        | 1.19        | 0.92        | 1.34        | 1.47           | 1.03          | 1.07        | 0.99        |        | 1.40        | 1.47        |              | 1.28        |
| 11      | CoT 14367         | 0.73        |               | 1.73        | 1.23        | 0.80        | 1.27        | 1.37           | 1.00          | 1.03        | 1.10        |        | 1.40        | 1.53        |              | 1.20        |
| 12      | CoT1 14111        | 0.94        |               | 1.68        | 0.90        | 0.98        | 1.23        | 1.18           | 1.08          | 1.06        | 1.29        |        | 1.32        | 1.15        |              | 1.16        |
| 13      | CoVC 14062        | 0.93        |               | 1.72        | 1.21        | 0.94        | 1.06        | 1.34           | 0.82          | 1.10        | 1.21        |        | 1.50        | 1.38        |              | 1.20        |
| 14      | MS 14081          | 1.21        |               | 1.58        | 1.22        | 0.84        | 1.30        | 1.10           | 1.57          | 1.13        | 1.37        |        | 1.63        | 1.71        |              | 1.33        |
| 15      | MS 14082          | 1.26        |               | 1.60        | 1.23        | 0.94        | 0.94        | 1.10           | 0.98          | 1.11        | 1.22        |        | 1.30        | 1.25        |              | 1.18        |
|         | Standards         |             |               |             |             |             |             |                |               |             |             |        |             |             |              |             |
| 1       | Co 86032          | 0.80        |               | 1.32        | 1.25        | 0.88        | 1.18        | 1.27           | 1.06          | 1.10        | 0.98        |        | 1.46        | 1.27        |              | 1.14        |
| 2       | CoC 671           | 0.96        |               | 1.54        | 1.36        | 1.00        | 1.07        | 1.20           | 0.91          | 1.13        | 1.05        |        | 1.48        | 1.56        |              | 1.21        |
| 3       | CoSnk 05103       | 1.04        |               | 1.19        | 0.75        | 1.03        | 0.69        | 1.03           | 0.85          | 0.99        | 0.87        |        | 1.05        | 1.22        |              | 0.97        |
|         | <b>Grand Mean</b> | <b>0.99</b> |               | <b>1.50</b> | <b>1.09</b> | <b>0.95</b> | <b>1.10</b> | <b>1.22</b>    | <b>1.06</b>   | <b>1.08</b> | <b>1.10</b> |        | <b>1.33</b> | <b>1.28</b> |              | <b>1.15</b> |
|         | SE(m)             | 0.11        |               | 0.10        | 0.06        | 0.04        | 0.09        | 0.04           | 0.01          | 0.47        | 0.03        |        | 0.10        | 0.07        |              |             |
|         | CD                | 0.33        |               | 0.28        | 0.18        | 0.11        | 0.26        | 0.13           | 0.04          | 0.13        | 0.09        |        | 0.29        | 0.21        |              |             |
|         | CV                | 12.03       |               | 11.23       | 10.09       | 6.80        | 14.07       | 6.24           | 2.80          | 7.54        | 4.98        |        | 13.08       | 7.65        |              |             |

**Table 2.1.28 CCS % at 8 months**

| Sl. No. | Entries           | Coimbatore   | Basmat Inagar | Kolhapur | Mandya       | Navasari    | Pedego n    | Peruma lapalle | Pravara nagar | Pugalur     | Pune        | Rudrur      | Sameer wadi | Sankeshwar  | Thiruvala | Mean        |
|---------|-------------------|--------------|---------------|----------|--------------|-------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-----------|-------------|
| 1       | Co 14002          | 10.82        |               |          | 9.39         | 7.62        | 6.62        | 10.46          | 11.35         | 8.71        | 8.38        | 7.03        | 9.52        | 7.65        |           | 8.87        |
| 2       | Co 14004          | 11.11        |               |          | 11.93        | 6.76        | 6.82        | 10.50          | 12.44         | 8.26        | 9.96        | 10.26       | 9.47        | 9.22        |           | 9.70        |
| 3       | Co 14012          | 11.13        |               |          | 12.15        | 6.92        | 7.74        | 10.58          | 12.24         | 7.44        | 10.26       | 9.07        | 9.26        | 8.30        |           | 9.55        |
| 4       | Co 14016          | 9.65         |               |          | 9.86         | 7.60        | 6.64        | 8.67           | 12.63         | 7.81        | 9.42        | 8.37        | 8.67        | 6.14        |           | 8.68        |
| 5       | Co 14027          | 11.17        |               |          | 11.40        | 7.36        | 7.81        | 10.32          | 11.45         | 9.27        | 9.37        | 10.88       | 10.29       | 10.96       |           | 10.03       |
| 6       | Co 14030          | 10.65        |               |          | 12.35        | 6.75        | 7.65        | 8.78           | 12.27         | 8.14        | 8.85        | 10.60       | 12.33       | 11.40       |           | 9.98        |
| 7       | Co 14032          | 8.91         |               |          | 11.32        | 7.92        | 7.89        | 7.44           | 12.57         | 9.44        | 6.47        | 9.65        | 8.28        | 8.80        |           | 8.97        |
| 8       | CoN 14073         | 10.80        |               |          | 8.87         | 6.12        | 5.97        | 8.30           | 10.81         | 6.87        | 6.20        | 8.11        | 5.63        | 6.72        |           | 7.67        |
| 9       | CoSnK 14102       | 10.72        |               |          | 11.68        | 7.67        | 6.36        | 9.64           | 11.18         | 9.43        | 8.54        | 8.80        | 9.08        | 6.77        |           | 9.08        |
| 10      | CoSnK 14103       | 8.13         |               |          | 12.23        | 6.86        | 7.78        | 9.81           | 10.86         | 8.88        | 7.44        | 9.16        | 7.96        | 9.31        |           | 8.95        |
| 11      | CoT 14367         | 10.16        |               |          | 10.09        | 7.36        | 5.85        | 9.56           | 10.63         | 6.12        | 7.14        | 6.00        | 4.58        | 6.68        |           | 7.65        |
| 12      | CoTI 14111        | 10.40        |               |          | 10.16        | 8.27        | 5.12        | 9.18           | 12.70         | 8.94        | 8.43        | 7.44        | 6.73        | 6.67        |           | 8.55        |
| 13      | CoVC 14062        | 10.86        |               |          | 11.63        | 7.64        | 5.58        | 9.83           | 11.83         | 8.97        | 7.20        | 7.89        | 9.38        | 8.74        |           | 9.05        |
| 14      | MS 14081          | 8.48         |               |          | 11.45        | 9.59        | 5.69        | 9.11           | 11.59         | 7.15        | 8.49        | 9.38        | 7.70        | 8.62        |           | 8.84        |
| 15      | MS 14082          | 10.14        |               |          | 11.56        | 5.97        | 6.83        | 10.16          | 12.38         | 9.43        | 7.75        | 9.16        | 8.05        | 7.71        |           | 9.01        |
|         | Standards         |              |               |          |              |             |             |                |               |             |             |             |             |             |           |             |
| 1       | Co 86032          | 10.63        |               |          | 11.53        | 8.35        | 7.38        | 8.88           | 11.83         | 10.44       | 8.66        | 10.29       | 7.95        | 9.38        |           | 9.57        |
| 2       | CoC 671           | 9.61         |               |          | 11.63        | 7.46        | 6.72        | 10.45          | 12.77         | 9.48        | 11.46       | 9.35        | 8.95        | 8.07        |           | 9.63        |
| 3       | CoSnk 05103       | 10.38        |               |          | 11.42        | 8.56        | 5.58        | 8.26           | 11.16         | 8.49        | 9.32        | 8.76        | 7.53        | 5.83        |           | 8.66        |
|         | <b>Grand Mean</b> | <b>10.21</b> |               |          | <b>11.15</b> | <b>7.49</b> | <b>6.67</b> | <b>9.44</b>    | <b>11.81</b>  | <b>8.51</b> | <b>8.52</b> | <b>8.90</b> | <b>8.14</b> | <b>8.17</b> |           | <b>9.00</b> |
|         | SE(m)             | 0.39         |               |          | 0.33         | 0.18        | 0.47        | 0.28           | 0.26          | 0.14        | 0.12        | 0.03        | 0.27        | 0.68        |           |             |
|         | CD                | 1.11         |               |          | 0.96         | 0.51        | 1.36        | 0.82           | 0.76          | 0.41        | 0.35        | 0.10        | 0.80        | 2.04        |           |             |
|         | CV                | 6.53         |               |          | 5.17         | 4.12        | 12.25       | 5.21           | 3.89          | 2.92        | 2.46        | 0.66        | 5.72        | 11.81       |           |             |



**Table 2.1.29 Sucrose % at 8 months**

| Sl. No. | Entries           | Coimbatore   | Basmat hnagar | Kolhapur | Mandya       | Navasari     | Pedegaon     | Perumalalalle | Pravara nagar | Pugatur     | Pune         | Rudrur       | Sameer wadi  | Sankeshwar   | Thiruvala | Mean         |
|---------|-------------------|--------------|---------------|----------|--------------|--------------|--------------|---------------|---------------|-------------|--------------|--------------|--------------|--------------|-----------|--------------|
| 1       | Co 14002          | 15.69        |               |          | 13.53        | 12.14        | 10.5         | 15.33         | 16.22         | 13.05       | 12.24        | 11.30        | 13.97        | 11.71        |           | 13.24        |
| 2       | Co 14004          | 16.05        |               |          | 16.79        | 11.06        | 10.69        | 15.39         | 17.4          | 12.35       | 14.16        | 15.06        | 13.98        | 13.46        |           | 14.22        |
| 3       | Co 14012          | 16.13        |               |          | 17.09        | 11.57        | 11.83        | 15.54         | 17.52         | 11.20       | 14.56        | 13.64        | 13.64        | 12.35        |           | 14.10        |
| 4       | Co 14016          | 14.27        |               |          | 14.15        | 11.57        | 10.48        | 12.78         | 17.42         | 11.54       | 13.48        | 12.72        | 13.21        | 9.59         |           | 12.84        |
| 5       | Co 14027          | 16.21        |               |          | 16.10        | 12.12        | 12.01        | 15.06         | 16.9          | 13.77       | 13.50        | 15.92        | 15.16        | 15.59        |           | 14.76        |
| 6       | Co 14030          | 15.60        |               |          | 17.39        | 11.02        | 11.84        | 12.86         | 17.35         | 12.53       | 12.89        | 15.54        | 17.69        | 16.24        |           | 14.63        |
| 7       | Co 14032          | 13.51        |               |          | 16.23        | 12.03        | 12.33        | 10.97         | 18.18         | 13.81       | 10.08        | 14.56        | 12.61        | 12.84        |           | 13.38        |
| 8       | CoN 14073         | 15.59        |               |          | 13.03        | 10.69        | 9.80         | 12.21         | 15.49         | 10.55       | 9.680        | 12.48        | 9.18         | 10.23        |           | 11.72        |
| 9       | CoSnK 14102       | 15.62        |               |          | 16.43        | 12.30        | 10.17        | 14.21         | 15.86         | 13.72       | 12.34        | 13.22        | 13.47        | 10.50        |           | 13.44        |
| 10      | CoSnK 14103       | 12.54        |               |          | 17.19        | 11.30        | 12.05        | 14.32         | 15.1          | 13.11       | 11.14        | 13.88        | 12.29        | 13.33        |           | 13.30        |
| 11      | CoT 14367         | 14.97        |               |          | 14.32        | 11.07        | 9.60         | 14.00         | 15.51         | 9.80        | 10.83        | 9.92         | 7.81         | 9.84         |           | 11.61        |
| 12      | CoTI 14111        | 15.14        |               |          | 14.54        | 12.17        | 8.57         | 13.55         | 18.56         | 13.12       | 12.20        | 11.76        | 10.49        | 9.97         |           | 12.73        |
| 13      | CoVC 14062        | 15.76        |               |          | 16.34        | 11.67        | 9.26         | 14.34         | 17.11         | 13.04       | 10.83        | 12.25        | 14.04        | 12.71        |           | 13.40        |
| 14      | MS 14081          | 12.88        |               |          | 16.11        | 13.98        | 9.21         | 13.45         | 16.28         | 11.04       | 12.35        | 14.12        | 11.72        | 12.24        |           | 13.03        |
| 15      | MS 14082          | 14.91        |               |          | 16.30        | 10.17        | 10.75        | 14.92         | 17.54         | 13.8        | 11.42        | 13.89        | 12.31        | 11.27        |           | 13.39        |
|         | Standards         |              |               |          |              |              |              |               |               |             |              |              |              |              |           |              |
| 1       | Co 86032          | 15.70        |               |          | 16.22        | 12.77        | 11.39        | 13.02         | 17.09         | 15.42       | 12.55        | 15.06        | 12.3         | 13.34        |           | 14.08        |
| 2       | CoC 671           | 14.26        |               |          | 16.38        | 11.81        | 10.69        | 15.34         | 17.87         | 13.80       | 16.12        | 14.11        | 13.22        | 11.84        |           | 14.13        |
| 3       | CoSnk 05103       | 15.15        |               |          | 16.04        | 12.75        | 9.22         | 12.13         | 16.53         | 12.91       | 13.29        | 13.22        | 11.88        | 9.14         |           | 12.93        |
|         | <b>Grand Mean</b> | <b>15.00</b> |               |          | <b>15.79</b> | <b>11.79</b> | <b>10.58</b> | <b>13.86</b>  | <b>16.88</b>  | <b>12.7</b> | <b>12.43</b> | <b>13.48</b> | <b>12.47</b> | <b>12.01</b> |           | <b>13.36</b> |
|         | SE(m)             | 0.48         |               |          | 0.41         | 0.24         | 0.58         | 0.41          | 0.27          | 0.21        | 0.13         | 0.04         | 0.34         | 0.78         |           |              |
|         | CD                | 1.39         |               |          | 1.18         | 0.7          | 1.66         | 1.18          | 0.80          | 0.61        | 0.38         | 0.12         | 0.99         | 2.33         |           |              |
|         | CV                | 5.56         |               |          | 4.49         | 3.6          | 9.46         | 5.11          | 2.86          | 2.91        | 1.84         | 0.53         | 4.67         | 9.2          |           |              |

**Table 2.1.30 Brix % at 8 months**

| Sl. No. | Entries           | Coimbatore   | Basmat hnagar | Kolhapur | Mandya       | Navasari     | Pedegon      | Perumalapalle | Pravaranagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sankeshwar   | Thiruvala | Mean         |
|---------|-------------------|--------------|---------------|----------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------|--------------|
| 1       | Co 14002          | 17.87        |               |          | 15.33        | 16.40        | 14.09        | 17.83         | 17.55        | 15.87        | 14.52        | 15.46        | 16.28        | 14.79        |           | 16.00        |
| 2       | Co 14004          | 18.15        |               |          | 18.00        | 15.54        | 14.05        | 17.93         | 19.12        | 14.93        | 15.92        | 17.55        | 16.50        | 15.54        |           | 16.66        |
| 3       | Co 14012          | 18.32        |               |          | 18.30        | 16.81        | 14.90        | 18.20         | 19.35        | 13.72        | 16.30        | 16.69        | 16.00        | 14.79        |           | 16.67        |
| 4       | Co 14016          | 16.89        |               |          | 15.87        | 14.48        | 13.94        | 15.07         | 19.32        | 13.63        | 15.37        | 15.83        | 16.54        | 12.54        |           | 15.41        |
| 5       | Co 14027          | 18.47        |               |          | 17.43        | 17.20        | 15.30        | 17.37         | 19.12        | 16.46        | 15.60        | 18.47        | 17.81        | 17.04        |           | 17.30        |
| 6       | Co 14030          | 18.11        |               |          | 18.67        | 15.47        | 15.25        | 14.97         | 19.32        | 15.98        | 15.21        | 18.10        | 19.67        | 17.79        |           | 17.14        |
| 7       | Co 14032          | 16.77        |               |          | 18.13        | 14.97        | 16.15        | 12.93         | 20.09        | 16.00        | 13.43        | 17.92        | 15.76        | 14.79        |           | 16.09        |
| 8       | CoN 14073         | 17.58        |               |          | 15.33        | 16.45        | 13.86        | 14.33         | 17.29        | 13.39        | 12.95        | 15.91        | 12.84        | 12.79        |           | 14.79        |
| 9       | CoSnK 14102       | 17.95        |               |          | 17.60        | 16.76        | 13.83        | 16.73         | 17.65        | 15.72        | 14.34        | 16.13        | 16.03        | 13.54        |           | 16.03        |
| 10      | CoSnK 14103       | 16.05        |               |          | 18.40        | 16.07        | 15.51        | 16.53         | 16.82        | 15.50        | 13.86        | 17.23        | 15.75        | 14.79        |           | 16.05        |
| 11      | CoT 14367         | 17.61        |               |          | 15.67        | 13.57        | 13.56        | 16.27         | 17.09        | 13.34        | 13.77        | 14.19        | 11.66        | 11.54        |           | 14.39        |
| 12      | CoTI 14111        | 17.37        |               |          | 16.20        | 14.27        | 12.47        | 16.00         | 18.85        | 15.30        | 14.25        | 15.69        | 13.66        | 12.04        |           | 15.10        |
| 13      | CoVC 14062        | 17.98        |               |          | 17.47        | 14.67        | 13.31        | 16.53         | 18.82        | 14.95        | 13.58        | 15.87        | 17.01        | 14.54        |           | 15.88        |
| 14      | MS 14081          | 16.04        |               |          | 17.27        | 16.10        | 12.74        | 15.87         | 18.45        | 14.16        | 14.55        | 17.30        | 14.62        | 13.29        |           | 15.49        |
| 15      | MS 14082          | 17.46        |               |          | 17.57        | 15.13        | 14.22        | 17.47         | 19.15        | 15.99        | 13.79        | 17.23        | 15.50        | 13.04        |           | 16.05        |
|         | Standards         |              |               |          |              |              |              |               |              |              |              |              |              |              |           |              |
| 1       | Co 86032          | 18.54        |               |          | 17.40        | 16.08        | 14.59        | 15.17         | 17.72        | 18.22        | 14.67        | 17.47        | 15.83        | 14.54        |           | 16.38        |
| 2       | CoC 671           | 17.00        |               |          | 17.60        | 15.78        | 14.38        | 17.93         | 19.09        | 15.82        | 17.73        | 17.37        | 15.61        | 13.79        |           | 16.55        |
| 3       | CoSnk 05103       | 17.46        |               |          | 17.13        | 15.30        | 13.14        | 14.20         | 18.39        | 16.10        | 15.04        | 16.27        | 15.79        | 12.04        |           | 15.53        |
|         | <b>Grand Mean</b> | <b>17.54</b> |               |          | <b>17.19</b> | <b>15.61</b> | <b>14.18</b> | <b>16.19</b>  | <b>18.50</b> | <b>15.28</b> | <b>14.72</b> | <b>16.70</b> | <b>15.74</b> | <b>14.06</b> |           | <b>15.97</b> |
|         | SE(m)             | 0.41         |               |          | 0.36         | 0.43         | 0.43         | 0.47          | 0.23         | 0.26         | 0.16         | 0.13         | 0.32         | 0.56         |           |              |
|         | CD                | 1.17         |               |          | 1.04         | 1.24         | 1.22         | 1.36          | 0.68         | 0.76         | 0.45         | 0.37         | 0.95         | 1.67         |           |              |
|         | CV                | 4.01         |               |          | 3.66         | 4.80         | 5.20         | 5.06          | 2.33         | 2.97         | 1.85         | 1.33         | 3.63         | 5.63         |           |              |

**Table 2.1.31 Purity % at 8 months**

| Sl. No. | Entries           | Coimbatore   | Basmat Inagar | Kolhapur | Mandya       | Navasari     | Pedego n     | Peruma lapalle | Pravara nagar | Pugalur      | Pune         | Rudrur       | Sameer wadi  | Sankesh war  | Thiruva lla | Mean         |
|---------|-------------------|--------------|---------------|----------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|
| 1       | Co 14002          | 87.71        |               |          | 88.88        | 74.12        | 74.53        | 85.97          | 87.82         | 82.25        | 84.32        | 73.09        | 85.78        | 79.12        |             | 82.14        |
| 2       | Co 14004          | 88.43        |               |          | 93.82        | 71.18        | 75.99        | 85.83          | 89.03         | 82.70        | 88.94        | 85.79        | 84.77        | 86.66        |             | 84.83        |
| 3       | Co 14012          | 88.01        |               |          | 93.98        | 68.81        | 79.33        | 85.40          | 90.17         | 81.63        | 89.30        | 81.73        | 85.22        | 83.45        |             | 84.28        |
| 4       | Co 14016          | 84.20        |               |          | 89.82        | 79.86        | 75.14        | 84.87          | 88.74         | 84.67        | 87.70        | 80.34        | 79.89        | 76.48        |             | 82.88        |
| 5       | Co 14027          | 87.81        |               |          | 92.95        | 70.45        | 78.41        | 86.73          | 88.79         | 83.66        | 86.54        | 86.24        | 86.25        | 91.24        |             | 85.37        |
| 6       | Co 14030          | 86.10        |               |          | 93.72        | 71.30        | 77.50        | 85.90          | 92.14         | 78.42        | 84.78        | 85.86        | 89.94        | 91.07        |             | 85.16        |
| 7       | Co 14032          | 80.56        |               |          | 90.16        | 80.42        | 76.20        | 84.90          | 91.08         | 86.33        | 75.06        | 81.27        | 80.37        | 86.99        |             | 83.03        |
| 8       | CoN 14073         | 87.02        |               |          | 85.60        | 65.41        | 70.75        | 85.13          | 89.83         | 78.81        | 74.77        | 78.46        | 71.55        | 80.21        |             | 78.87        |
| 9       | CoSnK 14102       | 86.97        |               |          | 93.92        | 73.37        | 73.50        | 84.90          | 90.32         | 87.26        | 86.06        | 81.92        | 84.01        | 77.55        |             | 83.62        |
| 10      | CoSnK 14103       | 78.16        |               |          | 93.97        | 70.47        | 77.29        | 86.60          | 89.73         | 84.60        | 80.42        | 80.57        | 78.00        | 90.21        |             | 82.73        |
| 11      | CoT 14367         | 85.00        |               |          | 92.09        | 81.86        | 70.24        | 86.07          | 89.37         | 73.44        | 78.63        | 69.93        | 66.71        | 85.21        |             | 79.87        |
| 12      | CoTI 14111        | 87.12        |               |          | 90.33        | 85.41        | 68.75        | 84.67          | 94.05         | 85.75        | 85.66        | 74.96        | 76.69        | 82.43        |             | 83.26        |
| 13      | CoVC 14062        | 87.64        |               |          | 94.17        | 79.60        | 69.54        | 86.73          | 89.90         | 87.27        | 79.77        | 77.23        | 82.59        | 87.40        |             | 83.80        |
| 14      | MS 14081          | 80.17        |               |          | 93.90        | 86.93        | 72.16        | 84.73          | 90.39         | 77.95        | 84.92        | 81.60        | 80.00        | 92.07        |             | 84.08        |
| 15      | MS 14082          | 85.18        |               |          | 93.36        | 67.25        | 75.53        | 85.47          | 89.47         | 86.31        | 82.85        | 80.60        | 79.40        | 86.34        |             | 82.89        |
|         | Standards         |              |               |          |              |              |              |                |               |              |              |              |              |              |             |              |
| 1       | Co 86032          | 84.72        |               |          | 93.80        | 79.40        | 78.07        | 85.90          | 91.94         | 84.66        | 85.57        | 86.22        | 78.03        | 91.72        |             | 85.46        |
| 2       | CoC 671           | 83.93        |               |          | 93.62        | 74.87        | 74.29        | 85.57          | 90.95         | 87.21        | 90.93        | 81.28        | 84.71        | 85.88        |             | 84.84        |
| 3       | CoSnk 05103       | 86.72        |               |          | 94.22        | 83.35        | 70.10        | 85.43          | 88.95         | 80.15        | 88.39        | 81.26        | 75.23        | 76.14        |             | 82.72        |
|         | <b>Grand Mean</b> | <b>85.30</b> |               |          | <b>92.35</b> | <b>75.78</b> | <b>74.30</b> | <b>85.60</b>   | <b>90.15</b>  | <b>82.94</b> | <b>84.15</b> | <b>80.46</b> | <b>79.32</b> | <b>85.01</b> |             | <b>83.21</b> |
|         | SE(m)             | 1.14         |               |          | 1.28         | 1.31         | 1.95         | 0.51           | 0.65          | 0.23         | 0.35         | 0.50         | 1.17         | 3.43         |             |              |
|         | CD                | 3.29         |               |          | 3.67         | 3.76         | 5.62         | N.S.           | 1.88          | 0.66         | 1.02         | 1.45         | 3.37         | 10.24        |             |              |
|         | CV                | 2.31         |               |          | 2.39         | 2.99         | 4.56         | 1.03           | 1.25          | 0.48         | 0.73         | 1.09         | 2.51         | 5.71         |             |              |

**Table 2.1.32 Number of shoots (000'/ha) at 240 days**

| Sl. No. | Entries           | Coimbatore    | Basmat hnagar | Kolhapur | Mandya       | Navasari      | Pedegon      | Perumalapalle | Pravaranaagar | Pugalur       | Pune         | Rudrur       | Sameerwadi    | Sankeshwar   | Thiruvala | Mean          |
|---------|-------------------|---------------|---------------|----------|--------------|---------------|--------------|---------------|---------------|---------------|--------------|--------------|---------------|--------------|-----------|---------------|
| 1       | Co 14002          | 124.35        |               |          | 82.15        | 144.89        | 93.98        | 95.10         | 112.4         | 186.76        | 102.72       | 77.89        | 88            | 118.76       |           | 111.55        |
| 2       | Co 14004          | 124.82        |               |          | 86.46        | 146           | 91.2         | 107.88        | 112.15        | 155.99        | 106.8        | 101.16       | 89            | 109.19       |           | 111.88        |
| 3       | Co 14012          | 119.06        |               |          | 76.94        | 142.56        | 86.4         | 91.48         | 119.22        | 188.79        | 100.06       | 107.64       | 89            | 98.48        |           | 110.87        |
| 4       | Co 14016          | 137.59        |               |          | 84.86        | 145.42        | 92.88        | 123.05        | 122.28        | 215.48        | 112.07       | 108.39       | 97.33         | 119.1        |           | 123.50        |
| 5       | Co 14027          | 90.92         |               |          | 85.14        | 140.65        | 62.09        | 97.56         | 125.46        | 174.84        | 84.76        | 83.28        | 78.66         | 86.13        |           | 100.86        |
| 6       | Co 14030          | 103.89        |               |          | 72.32        | 137.74        | 88.43        | 104.26        | 123.23        | 170.5         | 104.94       | 96.12        | 87.33         | 95.53        |           | 107.66        |
| 7       | Co 14032          | 84.63         |               |          | 80.97        | 137.87        | 64.64        | 105.64        | 104.86        | 121.79        | 80.85        | 82.00        | 87            | 98.92        |           | 95.38         |
| 8       | CoN 14073         | 95.09         |               |          | 90.42        | 146.11        | 69.27        | 92.09         | 101.96        | 175.32        | 93.96        | 98.52        | 91            | 84.83        |           | 103.51        |
| 9       | CoSnK 14102       | 111.11        |               |          | 88.19        | 136.88        | 82           | 85.62         | 102.66        | 189.47        | 95.22        | 93.23        | 83            | 80.39        |           | 104.34        |
| 10      | CoSnK 14103       | 101.11        |               |          | 78.75        | 132.7         | 49.36        | 89.17         | 113.48        | 128.81        | 57.49        | 91.61        | 83.33         | 47.94        |           | 88.52         |
| 11      | CoT 14367         | 79            |               |          | 73.89        | 129.27        | 59.55        | 90.78         | 118.58        | 150.63        | 72.46        | 70.20        | 94            | 96.14        |           | 94.05         |
| 12      | CoTI 14111        | 112.68        |               |          | 89.03        | 145.32        | 73.9         | 98.25         | 108.94        | 170.73        | 87.23        | 84.95        | 88.66         | 99.96        |           | 105.42        |
| 13      | CoVC 14062        | 97.87         |               |          | 97.01        | 134.95        | 64.06        | 88.86         | 112.06        | 184.04        | 73.92        | 75.58        | 92.66         | 87.17        |           | 100.74        |
| 14      | MS 14081          | 96.02         |               |          | 85.83        | 124.76        | 55.56        | 92.02         | 122.08        | 152.12        | 82.9         | 71.93        | 92.66         | 99.09        |           | 97.72         |
| 15      | MS 14082          | 130.3         |               |          | 101.32       | 137.69        | 77.03        | 112.57        | 119.3         | 202.5         | 98.45        | 99.94        | 107.66        | 104.75       |           | 117.41        |
|         | Standards         |               |               |          |              |               |              |               |               |               |              |              |               |              |           |               |
| 1       | Co 86032          | 105.83        |               |          | 95.76        | 141.29        | 89.24        | 110.11        | 136.85        | 190.34        | 91.91        | 85.58        | 110.66        | 116.67       |           | 115.84        |
| 2       | CoC 671           | 80.83         |               |          | 72.15        | 134.95        | 55.96        | 84.39         | 123.96        | 191.09        | 83.48        | 78.01        | 103.33        | 82.91        |           | 99.19         |
| 3       | CoSnK 05103       | 139.44        |               |          | 104.72       | 145.38        | 113.48       | 132.52        | 123.49        | 213.76        | 107.93       | 127.26       | 116.33        | 107.62       |           | 130.17        |
|         | <b>Grand Mean</b> | <b>107.48</b> |               |          | <b>85.88</b> | <b>139.13</b> | <b>76.06</b> | <b>100.07</b> | <b>116.83</b> | <b>175.72</b> | <b>90.95</b> | <b>90.74</b> | <b>110.11</b> | <b>96.31</b> |           | <b>108.12</b> |
|         | SE(m)             | 5.08          |               |          | 3.4          | 4.12          | 4.36         | 3.10          | 0.83          | 12.01         | 4.28         | 4.50         | 5.97          | 4.6          |           |               |
|         | CD                | 14.65         |               |          | 9.78         | 11.84         | 12.52        | 8.92          | 2.4           | 34.52         | 12.3         | 12.93        | 17.24         | 13.73        |           |               |
|         | CV                | 8.18          |               |          | 6.86         | 5.13          | 9.92         | 5.37          | 1.23          | 11.84         | 8.15         | 8.58         | 11.09         | 6.76         |           |               |

**Table 2.1.33 Number of tillers (000'/ha) at 120 days**

| Sl. No. | Entries           | Coimbatore   | Basmatnagar | Kolhapur      | Mandya        | Navasari      | Pedegon      | Perumalapalle | Pravaranagar  | Pugalur       | Pune          | Rudrur        | Sameerwadi    | Sankeshwar    | Thiruvala     | Mean          |
|---------|-------------------|--------------|-------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1       | Co 14002          | 112.04       |             | 139.93        | 132.01        | 159.55        | 125.93       | 133.75        | 120.46        | 211.35        | 192.60        | 150.46        | 140.66        | 188.27        | 128.32        | 148.87        |
| 2       | Co 14004          | 95.54        |             | 94.85         | 88.82         | 159.19        | 78.01        | 145.76        | 119.02        | 174.75        | 162.47        | 140.57        | 108.33        | 184.18        | 131.56        | 129.47        |
| 3       | Co 14012          | 121.18       |             | 149.94        | 103.47        | 161.57        | 88.43        | 146.53        | 125.70        | 213.67        | 173.34        | 176.91        | 130.66        | 185.22        | 127.39        | 146.46        |
| 4       | Co 14016          | 124.71       |             | 117.30        | 109.58        | 164.37        | 108.56       | 165.86        | 129.56        | 243.48        | 172.92        | 174.31        | 133.00        | 191.23        | 127.93        | 150.98        |
| 5       | Co 14027          | 73.61        |             | 123.96        | 121.67        | 163.07        | 70.37        | 122.12        | 133.69        | 198.01        | 161.08        | 120.89        | 115.00        | 137.81        | 119.83        | 127.78        |
| 6       | Co 14030          | 77.55        |             | 131.19        | 79.38         | 154.91        | 123.38       | 140.60        | 132.70        | 188.04        | 154.26        | 143.29        | 134.33        | 153.47        | 118.75        | 133.22        |
| 7       | Co 14032          | 60.94        |             | 85.77         | 115.63        | 151.55        | 76.62        | 138.75        | 115.11        | 138.97        | 146.57        | 110.01        | 95.00         | 137.03        | 117.05        | 114.54        |
| 8       | CoN 14073         | 85.13        |             | 95.89         | 148.96        | 161.24        | 89.12        | 128.21        | 107.86        | 196.04        | 165.59        | 145.49        | 122.00        | 160.52        | 139.66        | 134.28        |
| 9       | CoSnK 14102       | 107.52       |             | 88.31         | 169.58        | 155.70        | 97.22        | 113.04        | 111.48        | 210.31        | 178.87        | 145.43        | 129.66        | 186.79        | 120.83        | 139.59        |
| 10      | CoSnK 14103       | 72.69        |             | 76.62         | 151.88        | 155.23        | 48.61        | 136.98        | 120.74        | 144.19        | 114.11        | 124.02        | 101.66        | 75.95         | 113.96        | 110.51        |
| 11      | CoT 14367         | 77.03        |             | 104.92        | 141.25        | 158.74        | 81.71        | 134.90        | 125.57        | 170.87        | 146.15        | 156.60        | 136.00        | 176.61        | 139.51        | 134.60        |
| 12      | CoT1 14111        | 104.22       |             | 121.99        | 146.60        | 173.48        | 93.75        | 132.75        | 115.74        | 189.78        | 160.57        | 137.62        | 126.00        | 177.92        | 118.37        | 138.37        |
| 13      | CoVC 14062        | 85.07        |             | 91.95         | 168.96        | 155.58        | 57.41        | 123.12        | 119.61        | 208.57        | 155.90        | 120.78        | 111.33        | 134.68        | 121.60        | 127.27        |
| 14      | MS 14081          | 86.40        |             | 119.10        | 125.09        | 154.32        | 72.22        | 131.05        | 130.78        | 173.65        | 145.46        | 130.32        | 135.66        | 192.53        | 105.25        | 130.91        |
| 15      | MS 14082          | 136.86       |             | 117.65        | 192.71        | 153.28        | 101.16       | 146.84        | 130.39        | 234.67        | 174.23        | 151.22        | 144.66        | 188.01        | 133.72        | 154.26        |
|         | Standards         |              |             |               |               |               |              |               |               |               |               |               |               |               |               |               |
| 1       | Co 86032          | 86.92        |             | 132.23        | 145.42        | 165.87        | 93.29        | 143.45        | 146.69        | 213.09        | 172.66        | 138.14        | 149.33        | 175.39        | 133.26        | 145.83        |
| 2       | CoC 671           | 71.47        |             | 104.40        | 101.39        | 154.55        | 47.45        | 120.89        | 130.37        | 210.77        | 143.15        | 110.65        | 133.66        | 134.42        | 122.92        | 122.01        |
| 3       | CoSnk 05103       | 116.67       |             | 125.11        | 190.06        | 154.86        | 106.94       | 186.34        | 129.00        | 246.04        | 175.60        | 184.32        | 156.33        | 192.53        | 118.21        | 160.15        |
|         | <b>Grand Mean</b> | <b>94.20</b> |             | <b>112.28</b> | <b>135.14</b> | <b>158.73</b> | <b>86.68</b> | <b>138.39</b> | <b>124.69</b> | <b>198.12</b> | <b>160.86</b> | <b>142.28</b> | <b>146.44</b> | <b>165.14</b> | <b>124.34</b> | <b>137.48</b> |
|         | SE(m)             | 9.02         |             | 6.65          | 6.30          | 5.15          | 12.17        | 7.47          | 1.13          | 13.74         | 5.13          | 7.83          | 9.23          | 7.84          | 5.80          |               |
|         | CD                | 26.03        |             | 19.11         | 18.10         | NS            | 34.98        | 21.46         | 3.25          | 39.48         | 14.76         | 22.52         | 26.65         | 23.38         | 16.50         |               |
|         | CV                | 11.58        |             | 10.25         | 8.07          | 5.62          | 24.32        | 9.34          | 1.57          | 12.01         | 5.53          | 9.54          | 12.50         | 6.71          | 8.08          |               |

**Table 2.1.34 Germination % at 30 days**

| Sl. No. | Entries           | Coimbatore   | Basmat hnagar | Kolhapur     | Mandya       | Navasari     | Pedegon      | Perunallapalle | Pravara nagar | Pugatur      | Pune         | Rudrur       | Sameerwadi   | Sankeshwar   | Thiruvalla   | Mean         |
|---------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1       | Co 14002          | 45.22        |               | 48.78        | 41.33        | 53.15        | 54.58        | 68.06          | 47.38         | 79.05        | 45.20        | 45.83        | 42.05        | 38.93        | 63.74        | 51.79        |
| 2       | Co 14004          | 50.54        |               | 53.94        | 37.67        | 63.33        | 41.25        | 69.68          | 44.71         | 77.00        | 44.23        | 45.33        | 44.98        | 40.54        | 59.03        | 51.71        |
| 3       | Co 14012          | 55.55        |               | 62.67        | 39.33        | 56.20        | 45.42        | 63.08          | 47.09         | 79.38        | 37.17        | 48.83        | 41.20        | 38.54        | 61.73        | 52.01        |
| 4       | Co 14016          | 53.01        |               | 44.75        | 38.67        | 64.20        | 49.58        | 64.81          | 46.58         | 83.73        | 40.33        | 43.06        | 44.98        | 38.54        | 62.27        | 51.89        |
| 5       | Co 14027          | 52.01        |               | 62.96        | 53.00        | 55.50        | 55.00        | 68.81          | 48.61         | 85.81        | 50.10        | 52.78        | 51.93        | 62.33        | 52.62        | 57.80        |
| 6       | Co 14030          | 28.01        |               | 42.94        | 33.67        | 54.18        | 49.17        | 68.29          | 46.62         | 80.72        | 52.27        | 44.22        | 50.30        | 33.85        | 64.89        | 49.93        |
| 7       | Co 14032          | 35.65        |               | 47.97        | 50.00        | 58.61        | 54.17        | 64.64          | 43.04         | 82.27        | 47.93        | 44.78        | 40.35        | 41.59        | 61.65        | 51.74        |
| 8       | CoN 14073         | 58.41        |               | 55.90        | 51.33        | 60.69        | 47.08        | 66.26          | 45.62         | 77.97        | 49.87        | 51.44        | 60.95        | 40.36        | 64.35        | 56.17        |
| 9       | CoSnK 14102       | 59.64        |               | 50.81        | 60.67        | 58.83        | 42.50        | 54.86          | 48.92         | 89.77        | 53.77        | 50.17        | 53.55        | 58.07        | 65.82        | 57.49        |
| 10      | CoSnK 14103       | 51.47        |               | 58.91        | 69.33        | 56.84        | 47.08        | 72.92          | 45.28         | 82.00        | 37.37        | 59.11        | 56.02        | 26.56        | 59.57        | 55.57        |
| 11      | CoT 14367         | 56.02        |               | 47.05        | 48.33        | 57.60        | 64.58        | 69.10          | 44.28         | 75.33        | 45.40        | 48.89        | 48.30        | 46.28        | 64.12        | 55.02        |
| 12      | CoTI 14111        | 60.18        |               | 70.78        | 45.00        | 56.03        | 56.67        | 72.92          | 38.80         | 73.61        | 48.83        | 52.50        | 56.09        | 40.02        | 58.95        | 56.18        |
| 13      | CoVC 14062        | 51.70        |               | 42.88        | 65.67        | 57.49        | 55.00        | 64.76          | 40.61         | 76.33        | 38.67        | 45.83        | 54.78        | 46.09        | 61.26        | 53.93        |
| 14      | MS 14081          | 51.78        |               | 41.84        | 51.67        | 54.66        | 32.08        | 55.90          | 51.34         | 77.33        | 50.50        | 46.78        | 52.46        | 59.46        | 62.65        | 52.96        |
| 15      | MS 14082          | 54.71        |               | 51.91        | 55.00        | 60.89        | 58.33        | 57.70          | 49.61         | 78.39        | 58.87        | 48.17        | 52.77        | 54.72        | 68.36        | 57.65        |
|         | Standards         |              |               |              |              |              |              |                |               |              |              |              |              |              |              |              |
| 1       | Co 86032          | 52.70        |               | 60.94        | 47.00        | 59.54        | 60.00        | 59.20          | 55.12         | 84.83        | 42.63        | 46.33        | 48.07        | 46.09        | 67.21        | 56.13        |
| 2       | CoC 671           | 42.98        |               | 41.20        | 38.00        | 56.16        | 47.92        | 57.41          | 44.24         | 79.67        | 48.13        | 43.94        | 50.69        | 38.02        | 64.81        | 50.24        |
| 3       | CoSnk 05103       | 53.40        |               | 53.13        | 45.67        | 56.30        | 54.58        | 72.05          | 49.70         | 86.92        | 58.57        | 53.83        | 57.09        | 43.40        | 63.12        | 57.52        |
|         | <b>Grand Mean</b> | <b>50.72</b> |               | <b>52.19</b> | <b>48.41</b> | <b>57.79</b> | <b>50.83</b> | <b>65.02</b>   | <b>46.53</b>  | <b>80.56</b> | <b>47.21</b> | <b>48.44</b> | <b>51.95</b> | <b>44.08</b> | <b>62.56</b> | <b>54.33</b> |
|         | SE(m)             | 10.60        |               | 4.07         | 2.75         | 1.73         | 6.05         | 3.20           | 1.47          | 3.38         | 1.50         | 2.99         | 3.01         | 3.90         | 3.27         |              |
|         | CD                | 3.67         |               | 11.71        | 7.89         | 4.97         | 17.40        | 9.19           | 4.23          | 9.73         | 4.32         | 8.60         | 8.68         | 11.62        | NS           |              |
|         | CV                | 12.54        |               | 13.52        | 9.83         | 5.18         | NS           | 8.52           | 5.48          | 7.28         | 5.51         | 10.71        | 10.55        | 12.50        | 9.06         |              |

**Table 2.1.35 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S.No | Enteis              | Coimba<br>tore | Mandya   | Perumala<br>palle | Pugalur | Sameerwadi | Sankeshwar | Thiruvalla | Kolha<br>pur                | Bela<br>gavi |
|------|---------------------|----------------|----------|-------------------|---------|------------|------------|------------|-----------------------------|--------------|
| 1    | Co 14002            | better         | Better   | On Par            | average | On par     | Better     | On par     | Better                      | No trial     |
| 2    | Co 14004            | better         | Better   | On Par            | average | On par     | On par     | On par     | Better                      |              |
| 3    | Co 14012            | better         | Poor     | On Par            | On Par  | On par     | On par     | better     | On Par                      |              |
| 4    | Co 14016            | better         | On Par   | Better            | On Par  | On par     | On par     | better     | Poor                        |              |
| 5    | Co 14027            | better         | Better   | Better            | better  | On par     | Better     | better     | Better                      |              |
| 6    | Co 14030            | On par         | Poor     | Better            | On Par  | On par     | better     | On par     | On Par                      |              |
| 7    | Co 14032            | On par         | Better   | Better            | better  | average    | On par     | poor       | On Par                      |              |
| 8    | CoN 14073           | better         | On Par   | Better            | better  | On par     | Better     | better     | Better                      |              |
| 9    | CoSnk 14102         | better         | On Par   | On Par            | average | On par     | Better     | On par     | Better                      |              |
| 10   | CoSnk 14103         | better         | Better   | On Par            | On Par  | On par     | Better     | On par     | On Par                      |              |
| 11   | CoT 14367           | poor           | Better   | On Par            | On Par  | On par     | Better     | On par     | Poor                        |              |
| 12   | CoTl 14111          | better         | Better   | On par            | On Par  | On par     | Better     | On par     | Better                      |              |
| 13   | CoVC 14062          | poor           | On Par   | On Par            | average | On par     | On par     | poor       | Poor                        |              |
| 14   | MS 14081            | Better         | Better   | On Par            | On Par  | On par     | Better     | On par     | On Par                      |              |
| 15   | MS 14082            | Better         | On Par   | On Par            | average | better     | Better     | On par     | Better                      |              |
|      | Std1 Co 86032       | Best std       | Best std |                   | better  | Best std   | Best Std.  | Best std   | Best std                    |              |
|      | Std2 CoC 671        | On par         | On Par   |                   | On Par  | On par     | On par     | On par     | 3 <sup>rd</sup> best<br>std |              |
|      | Std3 CoSnk<br>05103 | poor           | On Par   |                   | average | On par     | On par     | poor       | 2 <sup>nd</sup> best<br>std |              |

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| No.                | Variety     | Navsari   | Pune      | Padegaon  | Rudrur    | Pravaranaagar | Tharsa | Kawardha | Powerkheda |
|--------------------|-------------|-----------|-----------|-----------|-----------|---------------|--------|----------|------------|
| 1                  | Co 14002    | Good      | Good      | Average   | Good      | Good          | -      | -        | -          |
| 2                  | Co 14004    | Average   | Good      | Good      | Good      | Very Good     | -      | -        | -          |
| 3                  | Co 14012    | Good      | Good      | Good      | Good      | Very Good     | -      | -        | -          |
| 4                  | Co 14016    | Good      | Excellent | Very good | Very good | Good          | -      | -        | -          |
| 5                  | Co 14027    | Excellent | Good      | Very good | Very good | Average       | -      | -        | -          |
| 6                  | Co 14030    | Average   | Average   | Average   | Good      | Good          | -      | -        | -          |
| 7                  | Co 14032    | Poor      | Good      | Poor      | Average   | Good          | -      | -        | -          |
| 8                  | CoN 14073   | Excekkabt | Excellent | Excellent | Very good | Very Good     | -      | -        | -          |
| 9                  | CoSnk 14102 | Good      | Very good | Good      | Good      | Good          | -      | -        | -          |
| 10                 | CoSnk 14103 | Poor      | Average   | Average   | Average   | Good          | -      | -        | -          |
| 11                 | CoT 14367   | Poor      | Poor      | Average   | Average   | Good          | -      | -        | -          |
| 12                 | CoTl 14111  | Very Good | Very good | Average   | Good      | Average       | -      | -        | -          |
| 13                 | CoVC 14062  | Average   | Good      | Average   | Average   | Good          | -      | -        | -          |
| 14                 | MS 14081    | Poor      | Very good | Very good | Average   | Very Good     | -      | -        | -          |
| 15                 | MS 14082    | Very Good | Excellent | Good      | Good      | Good          | -      | -        | -          |
| <b>Standards :</b> |             |           |           |           |           |               |        |          |            |
| 16                 | Co 86032    | Good      | Very good | Excellent | Good      | Good          | -      | -        | -          |
| 17                 | CoC 671     | Good      | Very good | Very good | Average   | Average       | -      | -        | -          |
| 18                 | CoSnk 05103 | Very Good | Good      | Average   | Good      | Good          | -      | -        | -          |



## 2.2. Advanced Varietal Trial Ratoon (2020-21)

|  |  |
|--|--|
| Centers where trial was conducted (13) | Coimbatore, Basmathnagar, Kolhapur, Mandya, Navsari, Padegaon, Perumallapalle, Pravaranagar, Pune, Rudrur, Sameervadi, Sankeshwar, Thiruvalla                    |
| Entries (15)                           | Co 14002, Co 14004, Co 14012, Co 14016, Co 14027, Co 14030, Co 14032, CoN 14073, CoSnk 14102, CoSnk 14103, CoT 14367, CoTI 14111, CoVC 14062, MS 14081, MS 14082 |
| Standards (3)                          | Co 86032, CoC 671 and CoSnk 05103  |
| Design                                 | RBD  |
| Replications                           | Three  |
| Plot size                              | 6 m x 8 rows x 1.2 m (Gross)<br>5m x 6 rows x 1.2 m (Net)  |
| Planting time                          | After harvest of I plant crop  |
| Crop duration                          | 11 months  |

**Results of the previous year: Results of the current year:** Fifteen clones were evaluated along with three standards (Co 86032, CoC 671 and CoSnk 05103) at 14 centres during 2019-20. Akola, Kawardha, Powerkheda, and Sirugamani centres didn't conduct the trial. Four test entries viz., MS 14082 (16.24 t/ha), CoTI 14111 (15.60 t/ha), CoN 14073 (15.49 t/ha) and Co 14016 (15.27 t/ha) recorded higher sugar yield than the best standard Co 86032 (15.25 t/ha) in the zone. MS 14082 and CoTI 14111 recorded more than 10% improvement for sugar yield over the best standard at four and three locations respectively. Four entries viz., CoN 14073 (123.62 t/ha), MS 14082 (122.73 t/ha), CoTI 14111 (117.30 t/ha), and Co 14016 (114.63 t/ha) had higher cane yield than the best check Co 86032 (114.39 t/ha). The entry MS 14082 recorded more than 10% improvement for cane yield over the best standard at six locations followed by Co 14002, CoN 14073 and CoTI 14111 at five locations each. None of the entries recorded more than 10% improvement over the best standard for mean CCS yield and cane yield across the locations. None of the entries recorded higher CCS % and sucrose per cent than the best standard CoC 671 (14.38% and 20.31% respectively) in this trial. The test entries Co 14032 and Co 14012 ranked as second and third respectively in the zone for CCS% (13.79% and 13.73% respectively) and sucrose per cent (19.58% and 19.48% respectively). No qualifying entry was identified in the zone.

**Results of the current year:** Fifteen clones were evaluated along with three standards (Co 86032, CoC 671 and CoSnk 05103) at 13 centres. Pugalur centre didn't conduct the trial. The entry MS 14082 (16.72 t/ha) recorded 8.66% higher sugar yield than the best standard Co 86032 (15.39 t/ha) in the zone. Three entries viz., MS 14082 (120.34 t/ha), CoN 14073 (110.93 t/ha), and CoTI 14111 (109.94 t/ha) had higher cane yield than the best check Co 86032 (109.89 t/ha). The entry MS 14082 recorded 9.51% improvement for cane yield over the best standard and it also recorded more than 10% improvement over the best standard at six locations followed by CoN 14073 at five locations. None of the entries recorded more than 10% improvement over the best standard for mean CCS yield and cane yield across the locations. None of the entries recorded higher CCS % and sucrose per cent than the best standard CoC 671 (14.74% and 20.81% respectively) in this trial. The test entries Co 14012 and Co 14032 ranked as second and third respectively in the zone for CCS% (14.42% and 14.28% respectively) and sucrose per cent (20.45% and 20.26% respectively). No qualifying entry was identified in the zone. The data are presented in the tables 2.2.1 to 2.2.15.

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**Table 2.2.1 CCS t/ha at harvest**

| S No | Entries                                       | Coimbatore   | Basmat h Nagar | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perumal lapalle | Pravara nagar | Pune         | Rudrur       | Sameer wadi  | Sankesh war  | Thiruvalla   | Mean         | Rank |  |
|------|---|--------------|----------------|--------------|--------------|--------------|--------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|------|--|
| 1    | Co 14002                                      | 17.80        | 14.28          | 11.29        | 9.26         | 14.98        | 13.76        | 6.43            | 16.97         | 20.09        | 12.33        | 20.56        | 14.72        | 10.41        | 14.07        |      |  |
| 2    | Co 14004                                      | 12.26        | 10.72          | 9.39         | 10.14        | 15.36        | 18.42        | 11.15           | 18.58         | 16.62        | 12.62        | 15.76        | 16.98        | 9.17         | 13.63        |      |  |
| 3    | Co 14012                                      | 15.35        | 7.89           | 10.58        | 8.44         | 15.14        | 14.41        | 8.32            | 21.70         | 18.71        | 13.41        | 16.45        | 16.78        | 11.87        | 13.77        |      |  |
| 4    | Co 14016                                      | 17.15        | 9.03           | 8.25         | 15.27        | 15.47        | 17.53        | 9.76            | 20.36         | 21.26        | 15.27        | 19.21        | 14.05        | 10.53        | 14.86        | 3    |  |
| 5    | Co 14027                                      | 19.77        | 11.81          | 9.65         | 15.61        | 15.06        | 13.02        | 12.12           | 20.73         | 10.72        | 12.77        | 12.74        | 13.38        | 7.34         | 13.44        |      |  |
| 6    | Co 14030                                      | 10.48        | 14.02          | 11.94        | 11.52        | 13.94        | 15.45        | 10.90           | 20.71         | 15.27        | 11.78        | 13.69        | 11.89        | 9.78         | 13.18        |      |  |
| 7    | Co 14032                                      | 12.00        | 16.04          | 12.44        | 10.93        | 12.17        | 11.80        | 13.47           | 17.25         | 11.06        | 13.11        | 13.04        | 19.08        | 9.62         | 13.23        |      |  |
| 8    | CoN 14073                                     | 13.25        | 10.33          | 13.05        | 10.60        | 15.22        | 16.34        | 9.97            | 16.27         | 21.90        | 15.41        | 17.79        | 17.45        | 10.46        | 14.46        | 5    |  |
| 9    | CoSnk 14102                                   | 15.14        | 14.56          | 10.50        | 11.30        | 12.26        | 15.45        | 12.50           | 16.39         | 14.58        | 11.83        | 14.58        | 13.75        | 8.28         | 13.16        |      |  |
| 10   | CoSnk 14103                                   | 11.07        | 10.38          | 9.42         | 8.66         | 12.14        | 11.13        | 16.07           | 18.92         | 10.85        | 12.63        | 11.18        | 13.63        | 9.28         | 11.95        |      |  |
| 11   | CoT 14367                                     | 8.67         | 17.36          | 10.93        | 6.44         | 10.41        | 9.36         | 14.67           | 18.97         | 9.98         | 13.23        | 12.40        | 15.33        | 10.88        | 12.20        |      |  |
| 12   | CoTl 14111                                    | 14.60        | 16.90          | 13.43        | 10.31        | 13.76        | 16.34        | 14.96           | 17.40         | 20.23        | 15.93        | 14.21        | 14.62        | 10.24        | 14.84        | 4    |  |
| 13   | CoVc 14062                                    | 10.47        | 9.89           | 10.49        | 14.55        | 12.91        | 14.01        | 14.36           | 19.34         | 16.74        | 14.05        | 20.14        | 15.92        | 11.73        | 14.20        |      |  |
| 14   | MS 14081                                      | 13.12        | 11.16          | 11.12        | 9.19         | 10.33        | 15.87        | 11.58           | 20.25         | 16.45        | 12.61        | 12.49        | 18.93        | 8.24         | 13.18        |      |  |
| 15   | MS 14082                                      | 21.70        | 19.09          | 14.07        | 16.43        | 14.55        | 16.32        | 17.55           | 18.44         | 21.01        | 18.60        | 12.23        | 15.17        | 12.23        | 16.72        | 1    |  |
|      | Standards                                     |              |                |              |              |              |              |                 |               |              |              |              |              |              |              |      |  |
| 1    | Co 86032                                      | 16.42        | 15.79          | 11.67        | 15.70        | 11.55        | 19.66        | 14.22           | 21.90         | 16.52        | 13.64        | 16.97        | 14.31        | 11.71        | 15.39        | 2    |  |
| 2    | CoC 671                                       | 17.30        | 18.00          | 9.57         | 12.42        | 11.50        | 8.25         | 10.75           | 20.96         | 11.93        | 13.01        | 14.46        | 14.55        | 10.81        | 13.35        |      |  |
| 3    | CoSnk 05103                                   | 13.80        | 11.36          | 10.59        | 13.80        | 12.11        | 12.57        | 11.93           | 17.26         | 13.62        | 13.48        | 10.37        | 13.37        | 10.04        | 12.64        |      |  |
|      | <b>Grand mean</b>                             | <b>14.46</b> | <b>13.26</b>   | <b>11.02</b> | <b>11.70</b> | <b>13.27</b> | <b>14.43</b> | <b>12.01</b>    | <b>19.02</b>  | <b>15.97</b> | <b>13.65</b> | <b>13.93</b> | <b>15.22</b> | <b>10.15</b> | <b>13.70</b> |      |  |
|      | SE  | 1.01         | 1.27           | 0.74         | 0.65         | 0.61         | 1.74         | 1.19            | 0.45          | 0.69         | 0.89         | 2.04         | 1.41         | 0.56         |              |      |  |
|      | CD  | 2.92         | 3.64           | 2.12         | 1.87         | 1.75         | 4.99         | 3.41            | 1.30          | 1.97         | 2.56         | 5.91         | 4.22         | 1.60         |              |      |  |
|      | CV  | 12.09        | 16.55          | 11.57        | 9.63         | 7.95         | 20.83        | 17.10           | 4.13          | 7.45         | 11.30        | 23.47        | 13.14        | 9.59         |              |      |  |
|      | Top three qualifying entries at each location |              |                |              |              |              |              |                 |               |              |              |              |              |              |              |      |  |
|      |   | MS 14082     | MS 14082       | MS 14082     | MS 14082     | Co 14016     |              | MS 14082        |               | CoN 14073    | MS 14082     | Co 14002     | Co 14032     | MS 14082     | MS 14082     |      |  |
|      |   | Co 14027     | Co 14011       | CoTl 14111   | CoSnK 14103  | Co 14004     |              | CoSnK 14103     |               | Co 14016     | CoTl 14111   | CoVc 14062   | MS 14081     | Co 14012     | MS 14082     |      |  |
|      |   | Co 14002     | CoN 14073      | CoN 14073    | CoTl 14111   | CoN 14073    |              | CoTl 14111      |               | MS 14082     | CoN 14073    | Co 14016     | CoN 14073    | CoVc 14062   | CoVc 14062   |      |  |

**Qualifying entries:** MS 14082 (8), CoN 14073 (5), Co 14016 (3), CoTl 14111 (3), CoVc 14062 (2), Co 14002 (2), Co 14004 (1), Co 14012 (1), Co 14027 (1), CoSnk 14103 (1), MS 14081 (1)

**Performance across locations:** Only entry MS 14082 (16.72 t/ha) recorded higher sugar yield than the best standard Co 86032 (15.39 t/ha). The first and second ranked entries MS 14082 and Co 14016 were respectively had more than 10% improvement over the standard at eight and five locations. The test entries Co 14016 and CoTl 14111 had more than 10% improvement over the best standard at three locations each.

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**Table 2.2.2 Cane yield t/ha at harvest**

| S No | Entries                                       | Coimbatore    | Basmathnagar | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perumalappalle | Pravara nagar | Pune          | Rudrur       | Sameerwadi    | Sankeshwar   | Thiruvalla   | Mean         | Rank |
|------|---|---------------|--------------|--------------|--------------|--------------|--------------|----------------|---------------|---------------|--------------|---------------|--------------|--------------|--------------|------|
| 1    | Co 14002                                      | 124.22        | 101.28       | 94.18        | 69.72        | 107.17       | 80.62        | 46.76          | 122.06        | 129.94        | 91.76        | 165.56        | 89.30        | 79.74        | 100.18       |      |
| 2    | Co 14004                                      | 84.45         | 90.74        | 74.12        | 67.85        | 109.70       | 112.24       | 82.13          | 121.70        | 107.68        | 91.34        | 112.92        | 101.75       | 85.24        | 95.53        |      |
| 3    | Co 14012                                      | 103.29        | 72.11        | 79.35        | 58.06        | 102.86       | 75.97        | 64.01          | 136.52        | 116.56        | 94.08        | 132.04        | 98.30        | 88.66        | 93.99        |      |
| 4    | Co 14016                                      | 119.24        | 82.68        | 63.47        | 109.79       | 114.92       | 121.78       | 75.42          | 141.70        | 144.08        | 124.29       | 145.123       | 90.15        | 91.84        | 109.58       |      |
| 5    | Co 14027                                      | 132.67        | 79.46        | 72.2         | 106.11       | 111.61       | 98.38        | 90.89          | 140.74        | 76.81         | 88.56        | 102.08        | 87.30        | 68.63        | 96.57        |      |
| 6    | Co 14030                                      | 77.63         | 94.59        | 105.13       | 82.36        | 99.20        | 93.23        | 86.46          | 135.72        | 101.47        | 94.42        | 126.62        | 73.90        | 81.83        | 96.35        |      |
| 7    | Co 14032                                      | 83.42         | 105.53       | 87.93        | 77.15        | 87.67        | 88.36        | 98.80          | 107.95        | 77.92         | 97.70        | 98.433        | 112.55       | 81.65        | 92.70        |      |
| 8    | CoN 14073                                     | 104.06        | 88.58        | 118.94       | 82.08        | 118.75       | 125.96       | 73.95          | 111.82        | 157.34        | 113.73       | 128.26        | 121.15       | 97.51        | 110.93       | 2    |
| 9    | CoSnk 14102                                   | 111.09        | 95.81        | 88.42        | 86.74        | 96.31        | 106.91       | 98.86          | 119.29        | 107.18        | 86.04        | 113.50        | 94.65        | 74.30        | 98.39        |      |
| 10   | CoSnk 14103                                   | 91.92         | 94.44        | 76.73        | 61.04        | 95.28        | 82.85        | 123.65         | 129.34        | 78.49         | 91.46        | 94.51         | 90.15        | 85.24        | 91.93        |      |
| 11   | CoT 14367                                     | 67.02         | 111.33       | 95.66        | 49.10        | 79.65        | 72.14        | 116.59         | 136.09        | 72.33         | 92.74        | 114.33        | 100.05       | 94.16        | 92.40        |      |
| 12   | CoT 14111                                     | 106.66        | 114.74       | 112.68       | 81.53        | 103.69       | 109.61       | 116.12         | 121.22        | 148.16        | 117.96       | 112.61        | 96.25        | 87.96        | 109.94       | 3    |
| 13   | CoVC 14062                                    | 82.91         | 79.65        | 85.23        | 99.72        | 95.02        | 89.46        | 105.63         | 127.88        | 108.79        | 98.24        | 149.93        | 96.35        | 90.80        | 100.74       |      |
| 14   | MS 14081                                      | 98.38         | 83.45        | 83.34        | 61.46        | 78.94        | 104.10       | 88.42          | 133.49        | 110.65        | 88.30        | 101.41        | 112.60       | 68.86        | 93.34        |      |
| 15   | MS 14082                                      | 147.43        | 134.32       | 109.28       | 111.74       | 106.43       | 123.17       | 129.19         | 136.24        | 140.28        | 131.73       | 100.87        | 95.95        | 97.80        | 120.34       | 1    |
|      | Standards                                     |               |              |              |              |              |              |                |               |               |              |               |              |              |              |      |
| 1    | Co 86032                                      | 117.07        | 105.73       | 93.43        | 115.21       | 83.89        | 148.74       | 107.18         | 152.36        | 113.43        | 98.11        | 108.56        | 92.40        | 92.48        | 109.89       | 4    |
| 2    | CoC 671                                       | 110.53        | 125.27       | 74.98        | 82.43        | 82.44        | 55.04        | 77.42          | 133.30        | 74.22         | 89.49        | 105.14        | 84.95        | 79.75        | 90.38        |      |
| 3    | CoSnk 05103                                   | 105.62        | 96.31        | 93.23        | 105.42       | 90.69        | 82.23        | 98.96          | 123.77        | 107.08        | 100.20       | 79.48         | 88.40        | 84.20        | 96.58        |      |
|      | <b>Grand mean</b>                             | <b>103.76</b> | <b>97.56</b> | <b>89.35</b> | <b>83.75</b> | <b>98.01</b> | <b>98.38</b> | <b>91.39</b>   | <b>129.17</b> | <b>109.58</b> | <b>99.45</b> | <b>116.18</b> | <b>95.90</b> | <b>85.04</b> | <b>98.39</b> |      |
|      | SE  | 6.73          | 9.25         | 6.32         | 4.55         | 3.51         | 9.91         | 8.33           | 2.13          | 4.74          | 6.53         | 13.67         | 8.57         | 4.38         |              |      |
|      | CD  | 19.42         | 26.59        | 18.18        | 13.09        | 10.09        | 28.5         | 23.95          | 6.13          | 13.62         | 18.77        | 39.48         | 25.56        | 12.45        |              |      |
|      | CV  | 11.23         | 16.43        | 12.26        | 9.42         | 6.21         | 17.39        | 15.79          | 2.85          | 7.49          | 11.37        | 20.33         | 12.63        | 8.92         |              |      |
|      | Top three qualifying entries at each location | MS 14082      | MS 14082     | CoN 14073    | MS 14082     | CoN 14073    | MS 14082     | MS 14082       | MS 14082      | CoN 14073     | MS 14082     | Co 14002      | CoN 14073    | MS 14082     | MS 14082     |      |
|      |   | Co 14027      | CoT 14111    | CoT 14111    | CoSnk 14103  | Co 14016     | CoSnk 14103  | CoSnk 14103    | CoSnk 14103   | CoT 14111     | Co 14016     | CoVC 14062    | MS 14082     | CoN 14073    | CoN 14073    |      |
|      |   | Co 14002      | CoT 14367    | MS 14082     | CoT 14082    | Co 14027     | CoT 14367    | CoT 14367      | CoT 14367     | Co 14016      | CoT 14111    | Co 14016      | Co 14032     | Co 14032     | CoT 14111    |      |

**Qualifying entries:** MS 14082 (6), CoN 14073 (5), Co 14016 (4), CoT 14111 (4), Co 14002 (2), Co 14027 (2), CoT 14367 (2), CoVC 14062 (1), CoSnk 14103 (1), Co 14032 (1), MS 14081 (1)  
**Performance across locations:** Three entries viz., MS 14082 (120.34 t/ha), CoN 14073 (110.93 t/ha), and CoT 14111 (109.94 t/ha) recorded higher cane yield than the best check Co 86032 (109.89 t/ha). The first ranked entry in the zone was MS 14082 with more than 10% improvement over the best standard at six locations. CoN 14073 and CoT 14111 were at second and third positions respectively in the zone and had more than 10% improvement over the best standard at five and four centres respectively.

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**Table 2.2.3 CCS % at harvest**

| S No | Entries           | Coimbat ore  | Basmath nagar | Kolha pur    | Mandya       | Navsari      | Pade gaon    | Perumal lapalle | Pravara nagar | Pune         | Rudrur       | Sameer wadi  | Sankesh war  | Thiru valla  | Mean         | Rank |
|------|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| 1    | Co 14002          | 14.32        | 14.10         | 12.01        | 13.33        | 13.97        | 15.42        | 13.78           | 13.91         | 15.46        | 13.41        | 12.04        | 16.52        | 13.04        | 13.95        |      |
| 2    | Co 14004          | 14.50        | 11.80         | 12.66        | 14.97        | 14.00        | 16.02        | 13.53           | 15.28         | 15.44        | 13.82        | 13.88        | 16.69        | 10.77        | 14.10        | 4    |
| 3    | Co 14012          | 14.93        | 10.95         | 13.33        | 14.59        | 14.67        | 16.63        | 12.90           | 15.90         | 16.09        | 14.26        | 12.67        | 17.07        | 13.41        | 14.42        | 2    |
| 4    | Co 14016          | 14.38        | 10.88         | 13.01        | 13.87        | 13.46        | 15.01        | 12.92           | 14.37         | 14.75        | 12.29        | 13.27        | 15.59        | 11.52        | 13.49        |      |
| 5    | Co 14027          | 14.90        | 14.94         | 13.40        | 14.72        | 13.49        | 14.32        | 13.32           | 14.73         | 14.00        | 14.43        | 12.63        | 15.32        | 10.72        | 13.92        |      |
| 6    | Co 14030          | 13.50        | 14.82         | 11.34        | 13.98        | 14.05        | 15.27        | 12.60           | 15.26         | 15.09        | 12.47        | 13.86        | 16.06        | 11.95        | 13.87        |      |
| 7    | Co 14032          | 14.39        | 15.31         | 14.16        | 14.17        | 13.92        | 14.48        | 13.64           | 15.98         | 14.18        | 13.41        | 13.26        | 16.96        | 11.79        | 14.28        | 3    |
| 8    | CoN 14073         | 12.71        | 11.67         | 11.08        | 12.89        | 12.81        | 12.79        | 13.41           | 14.55         | 13.92        | 13.56        | 13.75        | 14.31        | 10.77        | 12.94        |      |
| 9    | CoSnk 14102       | 13.58        | 15.19         | 11.90        | 13.05        | 12.74        | 14.05        | 12.69           | 13.74         | 13.61        | 13.75        | 12.86        | 14.58        | 11.11        | 13.30        |      |
| 10   | CoSnk 14103       | 12.07        | 11.07         | 12.24        | 14.21        | 12.73        | 13.67        | 12.96           | 14.63         | 13.82        | 13.81        | 12.01        | 15.13        | 10.92        | 13.02        |      |
| 11   | CoT 14367         | 12.92        | 15.58         | 11.45        | 13.10        | 13.05        | 13.86        | 12.56           | 13.94         | 13.83        | 14.26        | 10.96        | 15.33        | 11.56        | 13.26        |      |
| 12   | CoT 14111         | 13.70        | 14.72         | 11.90        | 12.66        | 13.27        | 14.48        | 12.87           | 14.36         | 13.67        | 13.50        | 12.73        | 15.17        | 11.65        | 13.44        |      |
| 13   | CoVC 14062        | 12.62        | 12.42         | 12.33        | 14.61        | 13.57        | 14.91        | 13.57           | 15.12         | 15.28        | 14.29        | 13.41        | 16.52        | 12.88        | 13.96        |      |
| 14   | MS 14081          | 13.33        | 13.38         | 13.38        | 14.95        | 13.13        | 14.49        | 13.14           | 15.17         | 14.88        | 14.28        | 12.32        | 16.81        | 12.02        | 13.94        |      |
| 15   | MS 14082          | 14.74        | 14.19         | 12.86        | 14.70        | 13.68        | 13.83        | 13.61           | 14.16         | 14.97        | 14.12        | 12.13        | 15.82        | 12.51        | 13.95        |      |
|      | Standards         |              |               |              |              |              |              |                 |               |              |              |              |              |              |              |      |
| 1    | Co 86032          | 14.03        | 14.83         | 12.50        | 13.63        | 13.77        | 14.08        | 13.26           | 14.38         | 14.57        | 13.90        | 13.58        | 15.47        | 12.67        | 13.90        |      |
| 2    | CoC 671           | 15.71        | 14.41         | 12.75        | 15.08        | 13.91        | 15.79        | 13.91           | 15.72         | 16.10        | 14.54        | 12.99        | 17.13        | 13.56        | 14.74        | 1    |
| 3    | CoSnk 05103       | 13.00        | 11.82         | 11.36        | 13.09        | 13.35        | 14.05        | 12.01           | 13.92         | 12.68        | 13.46        | 13.02        | 15.13        | 11.94        | 12.99        |      |
|      | <b>Grand mean</b> | <b>13.85</b> | <b>13.45</b>  | <b>12.43</b> | <b>13.98</b> | <b>13.53</b> | <b>14.62</b> | <b>13.15</b>    | <b>14.73</b>  | <b>14.57</b> | <b>13.75</b> | <b>13.20</b> | <b>15.87</b> | <b>11.93</b> | <b>13.77</b> |      |
|      | SE                | 0.32         | 0.3           | 0.29         | 0.27         | 0.33         | 0.49         | 0.28            | 0.2           | 0.28         | 0.09         | 0.57         | 0.3          | 0.43         |              |      |
|      | CD                | 0.93         | 0.86          | 0.84         | 0.79         | 0.94         | 1.41         | 0.81            | 0.58          | 0.8          | 0.25         | NS           | 0.89         | 1.23         |              |      |
|      | CV                | 4.02         | 3.85          | 4.09         | 3.39         | 4.18         | 5.8          | 3.70            | 2.38          | 3.29         | 1.08         | 7.74         | 2.67         | 6.30         |              |      |
|      | Top three         |              |               |              |              |              |              |                 |               |              |              |              |              |              |              |      |
|      |                   |              | CoT 14367     | Co 14032     | Co 14012     | Co 14004     | Co 14012     | Co 14032        | Co 14032      | Co 14032     | Co 14004     | Co 14004     | Co 14004     | Co 14004     | Co 14004     |      |
|      |                   |              | Co 14032      | Co 14027     | Co 14027     | Co 14004     | Co 14004     | Co 14012        | Co 14012      | Co 14012     | Co 14030     | Co 14030     | Co 14030     | Co 14030     | Co 14030     |      |
|      |                   |              | CoSnk 14102   | MS 14081     | Co 14004     | Co 14004     | Co 14004     | Co 14004        | Co 14004      | Co 14073     | Co 14073     | Co 14073     | Co 14073     | Co 14073     | Co 14073     |      |

**Qualifying entries:** Co 14012 (3), Co 14032 (3), Co 14004 (3), Co 14027 (2), Co 14030 (1), CoN 14073 (1), CoSnk 14102 (1), CoT 14367 (1), MS 14081 (1) **Performance across locations:** None of the entries recorded higher CCS% than the best standard CoC 671 (14.74%). The test entries Co 14012 (14.42%) and Co 14032 (14.28%) ranked second and third in the zone. Co 14012 recorded more than 5% improvement over the best standard at Navsari and Padegaon centres while the entry Co 14032 had more than 5% improvement over the best standard at Basmathnagar and Kolhapur.

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**Table 2.2.4 Sucrose% at harvest**

| S No  | Entries           | Coimbat ore  | Basmath nagar | Kolha pur    | Mandya       | Navsari      | Padegaon     | Perumal lapalle | Pravara nagar | Pune         | Rudrur       | Sameer wadi  | Sankesh war  | Thiru valla  | Mean         | Rank |
|---|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| 1   | Co 14002          | 20.88        | 19.48         | 18.04        | 18.70        | 19.91        | 21.62        | 19.76           | 20.50         | 21.33        | 18.92        | 17.51        | 23.14        | 18.64        | 19.88        |      |
| 2   | Co 14004          | 21.13        | 16.85         | 19.07        | 20.99        | 19.94        | 22.41        | 19.38           | 21.57         | 21.16        | 19.44        | 19.89        | 23.38        | 15.42        | 20.05        | 4    |
| 3   | Co 14012          | 21.80        | 15.96         | 19.71        | 20.51        | 20.86        | 23.27        | 18.50           | 21.49         | 22.16        | 20.11        | 18.39        | 23.97        | 19.18        | 20.45        | 2    |
| 4   | Co 14016          | 20.88        | 15.71         | 19.15        | 19.47        | 19.18        | 20.97        | 18.49           | 20.29         | 20.34        | 17.58        | 19.28        | 21.95        | 16.49        | 19.21        |      |
| 5   | Co 14027          | 21.70        | 20.56         | 19.72        | 20.66        | 19.42        | 20.31        | 19.07           | 20.36         | 19.82        | 20.34        | 18.22        | 21.69        | 15.36        | 19.79        |      |
| 6   | Co 14030          | 19.69        | 20.40         | 17.04        | 19.63        | 20.08        | 21.41        | 18.01           | 20.64         | 20.67        | 18.05        | 19.92        | 22.41        | 17.11        | 19.62        |      |
| 7   | Co 14032          | 21.01        | 21.01         | 20.75        | 19.89        | 19.84        | 20.48        | 19.53           | 22.30         | 19.76        | 18.99        | 19.05        | 23.86        | 16.87        | 20.26        | 3    |
| 8   | CoN 14073         | 18.73        | 16.55         | 16.73        | 18.13        | 18.38        | 18.32        | 19.21           | 19.89         | 19.39        | 19.18        | 19.69        | 20.34        | 15.44        | 18.46        |      |
| 9   | CoSnk 14102       | 19.75        | 20.89         | 17.79        | 18.33        | 18.16        | 19.89        | 18.16           | 18.87         | 18.93        | 19.42        | 18.57        | 20.68        | 15.89        | 18.87        |      |
| 10  | CoSnk 14103       | 17.85        | 16.12         | 18.11        | 19.91        | 18.19        | 19.42        | 18.62           | 20.45         | 19.17        | 19.44        | 17.46        | 21.14        | 15.67        | 18.58        |      |
| 11  | CoT 14367         | 18.97        | 21.49         | 17.13        | 18.38        | 18.84        | 19.84        | 17.96           | 20.29         | 19.14        | 20.10        | 15.97        | 21.34        | 16.55        | 18.92        |      |
| 12  | CoT 14111         | 19.96        | 20.19         | 17.79        | 17.77        | 18.90        | 20.42        | 18.46           | 20.39         | 19.06        | 19.19        | 18.42        | 21.33        | 16.65        | 19.12        |      |
| 13  | CoVC 14062        | 18.66        | 17.77         | 18.71        | 20.46        | 19.42        | 21.12        | 19.47           | 20.36         | 21.18        | 20.28        | 19.34        | 23.14        | 18.43        | 19.87        |      |
| 14  | MS 14081          | 19.47        | 19.13         | 19.60        | 20.90        | 18.83        | 20.39        | 18.81           | 20.29         | 20.74        | 20.13        | 17.87        | 23.29        | 17.23        | 19.74        |      |
| 15  | MS 14082          | 21.35        | 19.64         | 18.99        | 20.61        | 19.56        | 19.56        | 19.53           | 20.85         | 20.88        | 19.89        | 17.42        | 22.31        | 17.91        | 19.88        |      |
|   | Standards         |              |               |              |              |              |              |                 |               |              |              |              |              |              |              |      |
| 1   | Co 86032          | 20.49        | 20.45         | 18.42        | 19.14        | 19.43        | 20.01        | 19.03           | 20.90         | 20.12        | 19.63        | 19.45        | 21.48        | 18.19        | 19.75        |      |
| 2   | CoC 671           | 22.66        | 19.85         | 19.16        | 21.13        | 19.87        | 22.12        | 19.91           | 21.07         | 22.36        | 20.37        | 18.92        | 23.67        | 19.39        | 20.81        | 1    |
| 3   | CoSnk 05103       | 19.00        | 16.85         | 17.11        | 18.35        | 18.97        | 19.73        | 17.25           | 19.90         | 17.77        | 19.18        | 18.66        | 21.28        | 17.09        | 18.55        |      |
|   | <b>Grand mean</b> | <b>20.22</b> | <b>18.83</b>  | <b>18.50</b> | <b>19.61</b> | <b>19.32</b> | <b>20.63</b> | <b>18.84</b>    | <b>20.58</b>  | <b>20.22</b> | <b>19.46</b> | <b>19.01</b> | <b>22.24</b> | <b>17.08</b> | <b>19.58</b> |      |
|   | SE                | 0.42         | 0.35          | 0.36         | 0.38         | 0.4          | 0.59         | 0.39            | 0.34          | 0.35         | 0.10         | 0.75         | 0.36         | 0.618        |              |      |
|   | CD                | 1.2          | 1.01          | 1.03         | 1.09         | 1.15         | 1.71         | 1.11            | 1.00          | 1.02         | 0.29         | NS           | 1.06         | 1.758        |              |      |
|   | CV                | 3.57         | 3.22          | 3.35         | 3.35         | 3.6          | 4.99         | 3.56            | 2.93          | 3.04         | 0.91         | 7.04         | 2.26         | 6.269        |              |      |
| Top three qualifying entries at each location |                   |              |               |              |              |              |              |                 |               |              |              |              |              |              |              |      |
|   |                   |              | CoT 14367     | Co 14032     |              | Co 14012     | Co 14012     |                 | Co 14032      |              |              | Co 14030     | Co 14012     |              |              |      |
|   |                   |              | Co 14032      | Co 14027     |              | Co 14030     | Co 14004     |                 | Co 14004      |              |              | Co 14004     | Co 14032     |              |              |      |
|   |                   |              | CoSnK 14102   | Co 14012     |              | Co 14004     | Co 14012     |                 | Co 14012      |              |              | CoN 14073    |              |              |              |      |

**Qualifying entries:** Co 14012 (5), Co 14032 (4), Co 14004 (4), Co 14030 (2), Co 14027(1), CoSnk 14102 (1), CoT 14367 (1), CoN 14073 (1)

**Performance across locations:** None of the entries recorded higher juice sucrose per cent than the best standard CoC 671 (20.81%). The entry Co 14012 (20.45%) ranked second in the zone with more than 5% improvement over the best standard at Navsari and Padegaon centres. The entries Co 14032 (20.26%) and Co 14004 (20.05%) had more than 5% improvement over the best standard at four locations each.

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**Table 2.2.5 Brix % at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perumallapalle | Pravaranagar | Pune         | Rudrur       | Sameerwadi   | Sankeshwar   | Thiruvalla   | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1    | Co 14002          | 22.62        | 20.56        | 22.00        | 19.87        | 21.83        | 22.89        | 22.00          | 22.68        | 22.45        | 20.31        | 20.04        | 24.42        | 20.57        | 21.71        |
| 2    | Co 14004          | 22.86        | 19.14        | 23.40        | 22.27        | 21.83        | 23.59        | 21.50          | 22.88        | 21.90        | 20.71        | 22.08        | 24.67        | 17.10        | 21.84        |
| 3    | Co 14012          | 23.66        | 18.84        | 23.33        | 21.93        | 22.77        | 24.48        | 20.57          | 23.32        | 23.21        | 21.57        | 20.96        | 25.42        | 21.20        | 22.40        |
| 4    | Co 14016          | 22.42        | 18.24        | 22.47        | 20.73        | 21.03        | 22.00        | 20.50          | 21.68        | 21.32        | 19.47        | 22.03        | 23.42        | 18.27        | 21.04        |
| 5    | Co 14027          | 23.42        | 21.48        | 23.13        | 22.00        | 21.78        | 22.06        | 21.13          | 22.15        | 22.04        | 21.80        | 20.51        | 23.42        | 17.07        | 21.69        |
| 6    | Co 14030          | 21.34        | 21.31        | 20.80        | 20.90        | 22.18        | 22.64        | 19.90          | 22.08        | 21.36        | 20.45        | 22.23        | 23.42        | 18.97        | 21.35        |
| 7    | Co 14032          | 22.80        | 21.81        | 24.13        | 21.20        | 21.79        | 22.11        | 21.67          | 23.78        | 21.26        | 20.51        | 21.23        | 25.42        | 18.67        | 22.03        |
| 8    | CoN 14073         | 20.73        | 18.50        | 20.60        | 19.40        | 20.45        | 20.31        | 21.30          | 20.84        | 20.84        | 20.70        | 21.84        | 22.18        | 17.17        | 20.37        |
| 9    | CoSnk 14102       | 21.25        | 21.81        | 21.50        | 19.53        | 19.93        | 21.51        | 20.13          | 20.94        | 20.27        | 20.87        | 20.96        | 22.43        | 17.57        | 20.67        |
| 10   | CoSnk 14103       | 19.90        | 19.03        | 21.47        | 21.13        | 20.07        | 21.17        | 20.80          | 21.91        | 20.39        | 20.75        | 19.95        | 22.17        | 17.43        | 20.47        |
| 11   | CoT 14367         | 20.84        | 22.56        | 20.73        | 19.53        | 21.27        | 21.97        | 19.83          | 21.61        | 20.25        | 21.50        | 18.35        | 22.17        | 18.33        | 20.69        |
| 12   | CoT 14111         | 21.60        | 20.94        | 21.50        | 18.93        | 20.68        | 21.88        | 20.53          | 21.95        | 20.55        | 20.91        | 20.83        | 22.67        | 18.40        | 20.88        |
| 13   | CoVC 14062        | 20.79        | 20.23        | 23.27        | 21.67        | 21.50        | 22.84        | 21.67          | 22.21        | 22.52        | 22.03        | 21.78        | 24.42        | 20.40        | 21.95        |
| 14   | MS 14081          | 21.18        | 21.74        | 22.77        | 22.07        | 20.97        | 21.74        | 20.83          | 21.98        | 22.34        | 21.53        | 20.34        | 23.92        | 19.13        | 21.58        |
| 15   | MS 14082          | 22.78        | 20.81        | 22.43        | 21.87        | 21.60        | 21.09        | 21.73          | 22.05        | 22.48        | 21.29        | 19.42        | 23.92        | 19.83        | 21.64        |
|      | <b>Stds</b>       |              |              |              |              |              |              |                |              |              |              |              |              |              |              |
| 1    | Co 86032          | 22.26        | 21.48        | 21.63        | 20.40        | 20.83        | 21.82        | 21.20          | 22.55        | 21.22        | 21.11        | 21.57        | 22.17        | 20.27        | 21.42        |
| 2    | CoC 671           | 23.98        | 20.81        | 23.40        | 22.40        | 21.90        | 23.35        | 22.07          | 23.25        | 23.88        | 21.53        | 21.68        | 24.17        | 21.43        | 22.60        |
| 3    | CoSnk 05103       | 20.67        | 19.04        | 20.97        | 19.47        | 20.67        | 20.92        | 19.27          | 21.78        | 19.35        | 21.03        | 20.70        | 22.67        | 18.93        | 20.42        |
|      | <b>Grand mean</b> | <b>21.95</b> | <b>20.46</b> | <b>22.20</b> | <b>20.85</b> | <b>21.28</b> | <b>22.13</b> | <b>20.92</b>   | <b>22.20</b> | <b>21.54</b> | <b>21.00</b> | <b>21.32</b> | <b>23.50</b> | <b>18.93</b> | <b>21.41</b> |
|      | SE                | 0.36         | 0.32         | 0.31         | 0.40         | 0.44         | 0.45         | 0.41           | 0.25         | 0.38         | 0.24         | 0.71         | 0.34         | 0.68         |              |
|      | CD                | 1.04         | 0.92         | 0.90         | 1.14         | 1.26         | 1.28         | 1.17           | 0.72         | 1.10         | 0.68         | 2.07         | 1.02         | 1.93         |              |
|      | CV                | 2.83         | 2.70         | 2.44         | 3.31         | 3.57         | 3.49         | 3.36           | 1.97         | 3.08         | 1.94         | 5.93         | 2.06         | 0.68         |              |

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**Table 2.2.6 Purity % at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perumallapalle | Pravaranagar | Pune         | Rudrur       | Sameerwadi   | Sankeshwar   | Thiruvalla   | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1    | Co 14002          | 92.32        | 94.80        | 82.03        | 94.53        | 91.16        | 94.48        | 89.83          | 89.73        | 95.04        | 93.20        | 87.10        | 94.74        | 90.64        | <b>91.51</b> |
| 2    | Co 14004          | 92.45        | 88.10        | 81.51        | 94.61        | 91.30        | 95.00        | 90.13          | 96.03        | 96.62        | 93.85        | 90.08        | 94.80        | 90.18        | <b>91.90</b> |
| 3    | Co 14012          | 92.11        | 84.70        | 84.47        | 93.89        | 91.61        | 95.09        | 89.93          | 93.93        | 95.48        | 93.30        | 87.63        | 94.30        | 90.47        | <b>91.30</b> |
| 4    | Co 14016          | 93.09        | 86.20        | 85.22        | 94.31        | 91.18        | 95.32        | 90.20          | 93.21        | 95.40        | 90.42        | 87.46        | 93.71        | 90.25        | <b>91.23</b> |
| 5    | Co 14027          | 92.65        | 95.70        | 85.22        | 94.28        | 89.17        | 92.07        | 90.23          | 92.72        | 89.95        | 93.38        | 88.67        | 92.60        | 90.02        | <b>91.28</b> |
| 6    | Co 14030          | 92.31        | 95.70        | 81.96        | 94.30        | 90.56        | 94.58        | 90.53          | 95.12        | 96.76        | 88.28        | 89.61        | 95.68        | 90.21        | <b>91.97</b> |
| 7    | Co 14032          | 92.13        | 96.30        | 85.98        | 94.22        | 91.07        | 92.66        | 90.13          | 93.79        | 92.95        | 92.56        | 89.74        | 93.85        | 90.36        | <b>91.98</b> |
| 8    | CoN 14073         | 90.37        | 89.50        | 81.12        | 93.89        | 89.90        | 90.17        | 90.17          | 95.45        | 93.02        | 92.66        | 90.17        | 91.66        | 89.96        | <b>90.62</b> |
| 9    | CoSnk 14102       | 92.91        | 95.90        | 82.76        | 94.24        | 91.18        | 92.45        | 90.17          | 92.21        | 93.42        | 93.07        | 88.59        | 92.19        | 90.45        | <b>91.50</b> |
| 10   | CoSnk 14103       | 89.57        | 84.70        | 84.38        | 94.63        | 90.66        | 91.74        | 89.50          | 93.00        | 94.04        | 93.75        | 87.48        | 95.35        | 89.85        | <b>90.67</b> |
| 11   | CoT 14367         | 91.00        | 95.30        | 82.62        | 94.52        | 88.60        | 90.31        | 90.53          | 93.71        | 94.49        | 93.49        | 86.92        | 96.23        | 90.28        | <b>91.38</b> |
| 12   | CoTI 14111        | 92.41        | 96.50        | 82.77        | 94.28        | 91.49        | 93.33        | 89.90          | 92.73        | 92.70        | 91.74        | 88.44        | 94.07        | 90.51        | <b>91.61</b> |
| 13   | CoYC 14062        | 89.76        | 87.80        | 80.44        | 94.80        | 90.31        | 92.46        | 89.87          | 93.80        | 94.04        | 92.07        | 88.77        | 94.76        | 90.35        | <b>90.71</b> |
| 14   | MS 14081          | 91.95        | 88.00        | 86.09        | 95.10        | 89.73        | 93.70        | 90.27          | 94.26        | 92.83        | 93.50        | 87.86        | 97.38        | 90.06        | <b>91.59</b> |
| 15   | MS 14082          | 93.69        | 94.40        | 84.67        | 94.63        | 90.51        | 92.62        | 89.83          | 93.58        | 92.89        | 93.46        | 89.72        | 93.28        | 90.29        | <b>91.81</b> |
|      | <b>Stds</b>       |              |              |              |              |              |              |                |              |              |              |              |              |              |              |
| 1    | Co 86032          | 92.03        | 95.20        | 85.13        | 94.23        | 93.46        | 91.47        | 89.77          | 93.57        | 94.81        | 92.99        | 90.12        | 96.87        | 89.75        | <b>92.26</b> |
| 2    | CoC 671           | 94.48        | 95.40        | 81.87        | 94.71        | 90.81        | 94.74        | 90.20          | 93.41        | 93.66        | 94.64        | 87.13        | 98.03        | 90.48        | <b>92.27</b> |
| 3    | CoSnk 05103       | 91.90        | 88.50        | 81.61        | 94.67        | 91.80        | 94.29        | 89.53          | 91.61        | 91.90        | 91.19        | 90.13        | 93.87        | 90.28        | <b>90.87</b> |
|      | <b>Grand mean</b> | <b>92.06</b> | <b>91.81</b> | <b>83.32</b> | <b>94.44</b> | <b>90.81</b> | <b>93.14</b> | <b>90.04</b>   | <b>93.43</b> | <b>93.89</b> | <b>92.64</b> | <b>89.13</b> | <b>94.63</b> | <b>90.24</b> | <b>91.51</b> |
|      | SE                | 0.74         | 1.21         | 0.91         | 0.33         | 1.36         | 1.24         | 0.42           | 0.37         | 0.80         | 0.87         | 1.18         | 1.12         | 0.19         |              |
|      | CD                | 2.13         | 3.48         | 2.61         | NS           | NS           | 3.57         | N.S.           | 1.07         | 2.31         | 2.50         | NS           | 3.33         | NS           |              |
|      | CV                | 1.39         | 2.28         | 1.89         | 0.60         | 2.59         | NS           | 0.80           | 0.69         | 1.48         | 1.63         | 2.31         | 1.67         | 0.36         |              |

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**Table 2.2.7 Pol% Cane at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perumalpal | Pravaranagar | Pune         | Rudrur | Sameerwadi | Sankeshwar   | Thiruvalla | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|--------------|--------|------------|--------------|------------|--------------|
| 1    | Co 14002          | 15.98        | -            | 14.10        | 14.31        | 15.28        | 12.21        | -          | -            | 16.17        | -      | -          | 17.71        | -          | 15.11        |
| 2    | Co 14004          | 16.30        | -            | 14.93        | 15.98        | 15.30        | 12.68        | -          | -            | 15.94        | -      | -          | 17.91        | -          | 15.58        |
| 3    | Co 14012          | 16.70        | -            | 15.29        | 15.61        | 15.99        | 12.32        | -          | -            | 16.52        | -      | -          | 18.07        | -          | 15.79        |
| 4    | Co 14016          | 15.95        | -            | 14.86        | 14.82        | 14.67        | 11.27        | -          | -            | 15.19        | -      | -          | 16.55        | -          | 14.76        |
| 5    | Co 14027          | 16.13        | -            | 15.25        | 15.74        | 14.88        | 11.05        | -          | -            | 14.76        | -      | -          | 16.14        | -          | 14.85        |
| 6    | Co 14030          | 15.47        | -            | 13.22        | 14.80        | 15.24        | 12.56        | -          | -            | 15.83        | -      | -          | 16.98        | -          | 14.87        |
| 7    | Co 14032          | 15.93        | -            | 16.14        | 15.09        | 15.02        | 10.65        | -          | -            | 14.76        | -      | -          | 17.63        | -          | 15.03        |
| 8    | CoN 14073         | 14.31        | -            | 12.97        | 13.83        | 14.09        | 10.78        | -          | -            | 14.52        | -      | -          | 15.44        | -          | 13.71        |
| 9    | CoSnk 14102       | 15.27        | -            | 13.74        | 13.98        | 13.85        | 10.22        | -          | -            | 14.21        | -      | -          | 15.57        | -          | 13.83        |
| 10   | CoSnk 14103       | 13.41        | -            | 13.97        | 15.25        | 13.81        | 10.12        | -          | -            | 14.59        | -      | -          | 15.96        | -          | 13.87        |
| 11   | CoT 14367         | 14.46        | -            | 13.34        | 14.09        | 14.36        | 11.89        | -          | -            | 14.91        | -      | -          | 16.54        | -          | 14.23        |
| 12   | CoT 14111         | 15.15        | -            | 13.80        | 13.55        | 14.31        | 10.40        | -          | -            | 14.24        | -      | -          | 15.98        | -          | 13.92        |
| 13   | CoVC 14062        | 14.44        | -            | 14.60        | 15.69        | 14.80        | 11.82        | -          | -            | 16.02        | -      | -          | 17.58        | -          | 14.99        |
| 14   | MS 14081          | 15.14        | -            | 15.39        | 15.88        | 14.40        | 11.81        | -          | -            | 15.88        | -      | -          | 17.90        | -          | 15.20        |
| 15   | MS 14082          | 16.14        | -            | 14.75        | 15.68        | 15.00        | 10.98        | -          | -            | 15.82        | -      | -          | 16.82        | -          | 15.03        |
|      | <b>Stds</b>       |              |              |              |              |              |              |            |              |              |        |            |              |            |              |
| 1    | Co 86032          | 15.64        | -            | 14.28        | 14.45        | 14.91        | 11.36        | -          | -            | 15.08        | -      | -          | 16.68        | -          | 14.63        |
| 2    | CoC 671           | 17.39        | -            | 14.82        | 15.91        | 15.24        | 12.01        | -          | -            | 16.74        | -      | -          | 17.58        | -          | 15.67        |
| 3    | CoSnk 05103       | 14.44        | -            | 13.35        | 14.05        | 14.53        | 10.03        | -          | -            | 14.11        | -      | -          | 15.59        | -          | 13.73        |
|      | <b>Grand mean</b> | <b>15.45</b> | -            | <b>14.38</b> | <b>14.93</b> | <b>14.76</b> | <b>11.34</b> | -          | -            | <b>15.29</b> | -      | -          | <b>16.81</b> | -          | <b>15.10</b> |
|      | SE                | 0.32         | -            | 0.27         | 0.29         | 0.31         | 0.36         | -          | -            | 0.27         | -      | -          | 0.35         | -          |              |
|      | CD                | 0.91         | -            | 0.79         | 0.82         | 0.88         | 1.04         | -          | -            | 0.78         | -      | -          | 1.05         | -          |              |
|      | CV                | 3.61         | -            | 3.29         | 3.31         | 3.61         | 5.54         | -          | -            | 3.08         | -      | -          | 2.95         | -          |              |



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**Table 2.2.8 Fibre % at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perumalappalle | Pravaranagar | Pune         | Rudrur | Sameerwadi | Sankeshwar   | Thiruvalla | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|--------------|--------|------------|--------------|------------|--------------|
| 1    | Co 14002          | 13.48        | -            | 11.83        | 13.44        | 13.23        | 13.42        | -              | -            | 14.18        | -      | -          | 13.48        | -          | 13.29        |
| 2    | Co 14004          | 12.86        | -            | 11.70        | 13.85        | 13.27        | 13.38        | -              | -            | 14.67        | -      | -          | 13.42        | -          | 13.31        |
| 3    | Co 14012          | 13.40        | -            | 12.47        | 13.92        | 13.33        | 14.82        | -              | -            | 15.44        | -      | -          | 14.62        | -          | 14.00        |
| 4    | Co 14016          | 13.59        | -            | 12.37        | 13.89        | 13.52        | 14.50        | -              | -            | 15.31        | -      | -          | 14.59        | -          | 13.97        |
| 5    | Co 14027          | 15.66        | -            | 12.67        | 13.80        | 13.38        | 14.25        | -              | -            | 15.50        | -      | -          | 15.55        | -          | 14.40        |
| 6    | Co 14030          | 11.42        | -            | 12.43        | 14.61        | 14.13        | 12.53        | -              | -            | 13.41        | -      | -          | 14.23        | -          | 13.25        |
| 7    | Co 14032          | 14.20        | -            | 12.23        | 14.15        | 14.32        | 15.21        | -              | -            | 15.30        | -      | -          | 16.11        | -          | 14.50        |
| 8    | CoN 14073         | 13.61        | -            | 12.47        | 13.73        | 13.33        | 12.48        | -              | -            | 15.12        | -      | -          | 14.10        | -          | 13.55        |
| 9    | CoSnk 14102       | 12.66        | -            | 12.77        | 13.69        | 13.75        | 15.42        | -              | -            | 14.91        | -      | -          | 14.66        | -          | 13.98        |
| 10   | CoSnk 14103       | 14.85        | -            | 12.87        | 13.40        | 14.10        | 15.16        | -              | -            | 13.90        | -      | -          | 14.48        | -          | 14.11        |
| 11   | CoT 14367         | 13.76        | -            | 12.10        | 13.33        | 13.80        | 12.02        | -              | -            | 12.10        | -      | -          | 12.47        | -          | 12.80        |
| 12   | CoT1 14111        | 14.10        | -            | 12.43        | 13.76        | 14.25        | 15.61        | -              | -            | 15.30        | -      | -          | 15.06        | -          | 14.36        |
| 13   | CoVC 14062        | 12.60        | -            | 11.97        | 13.31        | 13.77        | 13.62        | -              | -            | 14.36        | -      | -          | 14.03        | -          | 13.38        |
| 14   | MS 14081          | 12.23        | -            | 11.47        | 14.05        | 13.53        | 12.78        | -              | -            | 13.44        | -      | -          | 13.10        | -          | 12.94        |
| 15   | MS 14082          | 14.41        | -            | 12.33        | 13.92        | 13.28        | 13.57        | -              | -            | 14.21        | -      | -          | 14.59        | -          | 13.76        |
|      | <b>Stds</b>       |              |              |              |              |              |              |                |              |              |        |            |              |            |              |
| 1    | Co 86032          | 13.65        | -            | 12.47        | 14.50        | 13.25        | 13.29        | -              | -            | 15.04        | -      | -          | 12.33        | -          | 13.50        |
| 2    | CoC 671           | 13.24        | -            | 12.63        | 14.71        | 13.28        | 14.28        | -              | -            | 15.13        | -      | -          | 15.72        | -          | 14.14        |
| 3    | CoSnk 05103       | 14.02        | -            | 11.97        | 13.40        | 13.38        | 15.66        | -              | -            | 13.76        | -      | -          | 16.75        | -          | 14.13        |
|      | <b>Grand mean</b> | <b>13.54</b> | -            | <b>12.29</b> | <b>13.86</b> | <b>13.61</b> | <b>14.00</b> | -              | -            | <b>14.50</b> | -      | -          | <b>14.41</b> | -          | <b>13.74</b> |
|      | SE                |              | -            | 0.21         | 0.42         | 0.09         | 0.37         | -              | -            | 0.16         | -      | -          | 0.72         | -          |              |
|      | CD                |              | -            | 0.60         | NS           | 0.26         | 1.06         | -              | -            | 0.47         | -      | -          | 2.14         | -          |              |
|      | CV                |              | -            | 2.95         | 5.31         | 1.15         | 4.58         | -              | -            | 1.96         | -      | -          | 7.04         | -          |              |

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**Table 2.2.9 Extraction % at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perumallapalle | Pravarannagar | Pune         | Rudrur   | Sameerwadi | Sankeshwar   | Thiruvalla   | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|----------|------------|--------------|--------------|--------------|
| 1    | Co 14002          | 53.45        | -            | 57.68        | 62.09        | 56.55        | 47.57        | 62.96          | 55.41         | 48.47        | -        | -          | 56.05        | 59.74        | <b>56.00</b> |
| 2    | Co 14004          | 56.91        | -            | 51.94        | 61.29        | 58.22        | 49.32        | 57.27          | 53.77         | 49.13        | -        | -          | 55.89        | 54.54        | <b>54.83</b> |
| 3    | Co 14012          | 56.07        | -            | 49.42        | 63.27        | 55.60        | 47.55        | 65.31          | 50.56         | 51.60        | -        | -          | 59.21        | 64.89        | <b>56.35</b> |
| 4    | Co 14016          | 59.98        | -            | 52.84        | 64.53        | 59.05        | 47.60        | 53.85          | 53.49         | 49.93        | -        | -          | 54.46        | 65.72        | <b>56.14</b> |
| 5    | Co 14027          | 55.46        | -            | 49.74        | 54.47        | 55.71        | 43.50        | 57.03          | 54.86         | 42.63        | -        | -          | 49.98        | 56.02        | <b>51.94</b> |
| 6    | Co 14030          | 49.70        | -            | 52.74        | 63.57        | 55.88        | 51.70        | 55.15          | 50.61         | 45.73        | -        | -          | 53.84        | 62.47        | <b>54.14</b> |
| 7    | Co 14032          | 51.88        | -            | 51.20        | 54.83        | 54.54        | 49.43        | 56.10          | 57.60         | 42.63        | -        | -          | 54.53        | 57.98        | <b>53.07</b> |
| 8    | CoN 14073         | 56.45        | -            | 56.19        | 64.71        | 58.43        | 46.11        | 59.65          | 57.93         | 52.30        | -        | -          | 59.96        | 61.70        | <b>57.34</b> |
| 9    | CoSnk 14102       | 47.71        | -            | 53.51        | 51.13        | 58.22        | 33.48        | 54.10          | 57.57         | 42.17        | -        | -          | 50.61        | 56.32        | <b>50.48</b> |
| 10   | CoSnk 14103       | 51.13        | -            | 51.52        | 52.48        | 56.66        | 52.78        | 54.34          | 53.74         | 43.47        | -        | -          | 55.75        | 57.25        | <b>52.91</b> |
| 11   | CoT 14367         | 57.06        | -            | 50.89        | 65.94        | 54.96        | 51.20        | 60.82          | 53.76         | 49.07        | -        | -          | 57.86        | 61.60        | <b>56.32</b> |
| 12   | CoT1 14111        | 56.50        | -            | 51.11        | 61.83        | 55.53        | 38.84        | 58.44          | 57.62         | 46.93        | -        | -          | 49.15        | 58.64        | <b>53.46</b> |
| 13   | CoVC 14062        | 53.23        | -            | 51.04        | 63.22        | 58.56        | 48.44        | 57.24          | 50.64         | 50.07        | -        | -          | 59.59        | 64.20        | <b>55.62</b> |
| 14   | MS 14081          | 48.63        | -            | 52.72        | 60.36        | 55.46        | 50.52        | 59.34          | 60.40         | 46.10        | -        | -          | 55.88        | 60.61        | <b>55.00</b> |
| 15   | MS 14082          | 57.98        | -            | 53.08        | 56.02        | 56.23        | 48.65        | 55.51          | 55.39         | 49.27        | -        | -          | 52.95        | 63.66        | <b>54.87</b> |
|      | <b>Stds</b>       |              |              |              |              |              |              |                |               |              |          |            |              |              |              |
| 1    | Co 86032          | 52.84        | -            | 53.53        | 59.87        | 55.24        | 54.74        | 39.75          | 56.69         | 44.73        | -        | -          | 53.68        | 61.14        | <b>53.22</b> |
| 2    | CoC 671           | 52.65        | -            | 52.40        | 60.04        | 58.37        | 52.81        | 57.66          | 52.02         | 43.60        | -        | -          | 56.36        | 53.58        | <b>53.95</b> |
| 3    | CoSnk 05103       | 53.63        | -            | 49.70        | 58.64        | 57.37        | 45.27        | 63.05          | 51.21         | 42.23        | -        | -          | 51.66        | 54.92        | <b>52.77</b> |
|      | <b>Grand mean</b> | <b>53.96</b> | <b>-</b>     | <b>52.29</b> | <b>59.91</b> | <b>56.70</b> | <b>47.75</b> | <b>57.09</b>   | <b>54.63</b>  | <b>46.67</b> | <b>-</b> | <b>-</b>   | <b>54.86</b> | <b>59.72</b> | <b>54.36</b> |
|      | SE                | 2.61         | -            | 2.26         | 2.74         | 0.82         | 3.60         | 3.08           | 0.47          | 1.22         | -        | -          | 1.27         | 2.41         |              |
|      | CD                | N/A          | -            | NS           | 7.87         | 2.35         | 10.35        | 8.84           | 1.37          | 3.52         | -        | -          | 3.80         | 6.84         |              |
|      | CV                | 8.38         | -            | 7.50         | 7.92         | 2.50         | 13.07        | 9.33           | 1.51          | 4.55         | -        | -          | 3.28         | 6.98         |              |

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**Table 2.2.10 Number of millable canes(000'/ha) at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Kolhapur     | Mandya | Navsari      | Padegaon     | Perumalappalle | Pravaranagar  | Pune         | Rudrur       | Sameerwadi   | Sankeshwar   | Thiruvalla   | Mean         |
|------|-------------------|--------------|--------------|--------------|--------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1    | Co 14002          | 117.13       | 73.20        | 71.70        | -      | 96.69        | 85.94        | 50.82          | 105.04        | 83.73        | 58.19        | 137.66       | 52.98        | 85.42        | <b>84.88</b> |
| 2    | Co 14004          | 105.90       | 77.05        | 65.34        | -      | 92.52        | 99.19        | 68.07          | 104.69        | 81.22        | 68.76        | 109.00       | 66.45        | 95.37        | <b>86.13</b> |
| 3    | Co 14012          | 94.73        | 69.33        | 65.86        | -      | 94.93        | 81.89        | 62.14          | 112.83        | 79.04        | 74.07        | 104.66       | 62.45        | 97.38        | <b>83.28</b> |
| 4    | Co 14016          | 128.01       | 74.17        | 55.73        | -      | 101.57       | 97.92        | 68.76          | 115.84        | 89.03        | 87.73        | 115.00       | 64.45        | 101.00       | <b>91.60</b> |
| 5    | Co 14027          | 93.64        | 65.46        | 63.62        | -      | 87.84        | 65.68        | 54.13          | 117.94        | 59.12        | 63.64        | 94.00        | 51.74        | 87.88        | <b>75.39</b> |
| 6    | Co 14030          | 81.92        | 73.20        | 59.64        | -      | 89.07        | 80.03        | 64.22          | 108.26        | 76.19        | 61.20        | 111.00       | 57.52        | 91.59        | <b>79.49</b> |
| 7    | Co 14032          | 72.40        | 67.72        | 62.96        | -      | 89.60        | 80.44        | 68.53          | 96.59         | 62.00        | 63.98        | 92.00        | 66.30        | 87.65        | <b>75.85</b> |
| 8    | CoN 14073         | 81.30        | 77.05        | 65.19        | -      | 108.29       | 82.12        | 49.90          | 98.76         | 93.71        | 65.35        | 120.66       | 62.99        | 111.65       | <b>84.75</b> |
| 9    | CoSnk 14102       | 93.87        | 70.29        | 73.77        | -      | 86.65        | 86.05        | 65.37          | 105.83        | 72.75        | 69.58        | 105.00       | 55.75        | 86.19        | <b>80.93</b> |
| 10   | CoSnk 14103       | 78.13        | 66.44        | 60.66        | -      | 85.78        | 50.35        | 78.16          | 105.01        | 52.40        | 69.08        | 91.00        | 35.73        | 94.45        | <b>72.27</b> |
| 11   | CoT 14367         | 61.37        | 68.38        | 67.88        | -      | 79.21        | 61.00        | 61.45          | 110.15        | 47.77        | 66.25        | 87.00        | 47.05        | 99.85        | <b>71.45</b> |
| 12   | CoTl 14111        | 112.85       | 70.30        | 74.92        | -      | 100.54       | 83.45        | 76.15          | 102.00        | 81.48        | 71.20        | 97.33        | 59.83        | 94.68        | <b>85.39</b> |
| 13   | CoYC 14062        | 70.89        | 65.46        | 61.46        | -      | 85.36        | 62.56        | 58.83          | 107.26        | 67.30        | 61.57        | 111.66       | 47.36        | 105.48       | <b>75.43</b> |
| 14   | MS 14081          | 82.64        | 69.33        | 65.97        | -      | 80.07        | 70.20        | 56.90          | 114.95        | 70.56        | 59.21        | 91.33        | 52.05        | 86.27        | <b>74.96</b> |
| 15   | MS 14082          | 108.51       | 76.06        | 82.64        | -      | 105.91       | 80.90        | 82.01          | 111.14        | 83.26        | 90.56        | 83.33        | 50.90        | 111.27       | <b>88.87</b> |
|      | <b>Stds</b>       |              |              |              |        |              |              |                |               |              |              |              |              |              |              |
| 1    | Co 86032          | 97.80        | 73.18        | 64.53        | -      | 84.84        | 95.95        | 67.84          | 128.56        | 78.42        | 73.01        | 106.66       | 54.67        | 106.56       | <b>86.00</b> |
| 2    | CoC 671           | 79.34        | 73.20        | 59.12        | -      | 83.82        | 50.46        | 57.90          | 117.40        | 53.42        | 61.61        | 94.00        | 42.12        | 90.28        | <b>71.89</b> |
| 3    | CoSnk 05103       | 144.16       | 78.98        | 68.98        | -      | 91.04        | 104.57       | 96.10          | 117.29        | 92.70        | 106.44       | 79.00        | 60.06        | 99.00        | <b>94.86</b> |
|      | <b>Grand mean</b> | <b>94.70</b> | <b>71.60</b> | <b>66.11</b> | -      | <b>91.32</b> | <b>78.82</b> | <b>65.96</b>   | <b>109.97</b> | <b>73.56</b> | <b>70.64</b> | <b>93.22</b> | <b>55.02</b> | <b>96.22</b> | <b>80.59</b> |
|      | SE                | 5.74         | 3.08         | 2.72         | -      | 2.92         | 2.93         | 5.02           | 1.86          | 5.47         | 4.02         | 9.03         | 3.32         | 4.61         |              |
|      | CD                | 16.58        | NS           | 7.82         | -      | 8.39         | 8.42         | 14.42          | 5.36          | 15.73        | 11.56        | 26.08        | 9.90         | 13.10        |              |
|      | CV                | 10.50        | 7.44         | 7.13         | -      | 5.54         | 6.44         | 13.18          | 2.94          | 12.88        | 9.86         | 15.39        | 8.53         | 8.30         |              |

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**Table 2.2.11 Stalk length (cm) at harvest**

| S No | Entries           | Coimbatore    | Basmathnagar  | Kolhapur      | Mandya        | Navsari       | Padegaon      | Perumallapalle | Pravara nagar | Pune          | Rudrur        | Sameerwadi    | Sankeshwar    | Thiruvalla    | Mean          |
|------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1    | Co 14002          | 236.67        | 249.00        | 270.00        | 225.33        | 228.33        | 242.50        | 245.00         | -             | 265.70        | 258.60        | 267.33        | 246.50        | 218.00        | 246.08        |
| 2    | Co 14004          | 201.67        | 180.00        | 235.67        | 205.33        | 230.00        | 230.00        | 266.33         | -             | 248.89        | 238.20        | 253.66        | 233.00        | 235.33        | 229.84        |
| 3    | Co 14012          | 238.33        | 214.00        | 191.33        | 160.00        | 221.67        | 225.00        | 254.00         | -             | 237.89        | 228.93        | 221.66        | 217.50        | 230.33        | 220.05        |
| 4    | Co 14016          | 200.00        | 227.00        | 211.00        | 216.00        | 268.33        | 245.00        | 254.67         | -             | 278.33        | 250.13        | 198.33        | 207.50        | 228.00        | 232.02        |
| 5    | Co 14027          | 213.33        | 199.33        | 202.83        | 214.67        | 271.67        | 225.00        | 299.67         | -             | 210.89        | 221.20        | 233.66        | 198.00        | 231.00        | 226.77        |
| 6    | Co 14030          | 210.00        | 237.67        | 293.50        | 198.00        | 230.00        | 212.50        | 255.00         | -             | 239.22        | 242.83        | 189.33        | 179.50        | 235.67        | 226.94        |
| 7    | Co 14032          | 220.00        | 254.00        | 260.33        | 226.00        | 218.33        | 280.00        | 338.33         | -             | 250.22        | 236.53        | 252.66        | 234.50        | 251.67        | 251.88        |
| 8    | CoN 14073         | 275.00        | 224.00        | 305.67        | 242.67        | 285.00        | 317.50        | 296.00         | -             | 293.45        | 275.80        | 220.00        | 286.00        | 253.67        | 272.90        |
| 9    | CoSnk 14102       | 260.00        | 269.67        | 239.17        | 266.00        | 241.67        | 272.50        | 282.00         | -             | 288.89        | 239.47        | 216.33        | 259.50        | 245.00        | 256.68        |
| 10   | CoSnk 14103       | 223.33        | 243.00        | 247.17        | 236.00        | 253.33        | 270.00        | 298.00         | -             | 236.00        | 185.53        | 269.66        | 292.00        | 269.33        | 251.95        |
| 11   | CoT 14367         | 171.67        | 246.67        | 249.00        | 219.33        | 223.33        | 220.00        | 299.33         | -             | 194.11        | 213.67        | 253.66        | 238.50        | 250.33        | 231.63        |
| 12   | CoT 14111         | 243.33        | 257.67        | 268.50        | 213.33        | 253.33        | 290.00        | 298.33         | -             | 289.78        | 255.93        | 233.00        | 254.00        | 248.67        | 258.82        |
| 13   | CoVC 14062        | 208.33        | 220.00        | 223.50        | 228.67        | 258.33        | 262.50        | 318.67         | -             | 247.44        | 251.40        | 230.00        | 245.50        | 243.67        | 244.83        |
| 14   | MS 14081          | 238.33        | 216.67        | 257.67        | 218.00        | 220.00        | 255.00        | 327.67         | -             | 247.55        | 238.40        | 247.33        | 284.00        | 239.00        | 249.13        |
| 15   | MS 14082          | 246.67        | 256.33        | 252.83        | 252.67        | 256.67        | 242.50        | 331.67         | -             | 293.33        | 246.93        | 253.00        | 244.50        | 267.67        | 262.06        |
|      | <b>Stds</b>       |               |               |               |               |               |               |                |               |               |               |               |               |               |               |
| 1    | Co 86032          | 211.67        | 217.00        | 254.17        | 246.00        | 220.00        | 255.00        | 299.67         | -             | 192.78        | 238.53        | 217.00        | 238.50        | 228.67        | 234.92        |
| 2    | CoC 671           | 196.67        | 257.33        | 210.33        | 207.33        | 223.33        | 232.50        | 281.67         | -             | 172.45        | 214.00        | 250.00        | 214.00        | 266.67        | 227.19        |
| 3    | CoSnk 05103       | 238.33        | 244.67        | 310.00        | 277.33        | 245.00        | 260.00        | 321.33         | -             | 313.55        | 254.73        | 230.00        | 261.00        | 262.33        | 268.19        |
|      | <b>Grand mean</b> | <b>224.07</b> | <b>234.11</b> | <b>249.04</b> | <b>225.15</b> | <b>241.57</b> | <b>252.08</b> | <b>292.63</b>  | <b>-</b>      | <b>250.03</b> | <b>238.38</b> | <b>232.33</b> | <b>240.78</b> | <b>244.72</b> | <b>243.74</b> |
|      | SE                | 14.10         | 12.02         | 11.23         | 5.52          | 7.73          | 9.21          | 13.18          | -             | 12.76         | 2.07          | 18.94         | 8.61          | 11.37         |               |
|      | CD                | 40.70         | NS            | 32.27         | 15.87         | 22.20         | 26.46         | 37.89          | -             | 36.67         | 5.96          | NS            | 25.69         | 32.33         |               |
|      | CV                | 10.90         | 8.90          | 7.81          | 4.25          | 5.54          | 6.30          | 7.80           | -             | 8.84          | 1.51          | 13.94         | 5.06          | 8.05          |               |

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**Table 2.2.12 Stalk diameter (cm) at harvest**

| S No | Entries           | Coimba<br>tore | Basmath<br>nagar | Kolha<br>pur | Mandya      | Navsari     | Pade<br>gaon | Perumall<br>apalle | Pravara<br>nagar | Pune        | Rudrur      | Sameer<br>wadi | Sankesh<br>war | Thiru<br>valla | Mean        |
|------|-------------------|----------------|------------------|--------------|-------------|-------------|--------------|--------------------|------------------|-------------|-------------|----------------|----------------|----------------|-------------|
| 1    | Co 14002          | 2.77           | 3.09             | 2.62         | 2.71        | 2.48        | 2.66         | 2.73               | -                | 2.87        | 2.86        | 3.02           | 2.53           | 1.97           | <b>2.69</b> |
| 2    | Co 14004          | 2.60           | 3.14             | 2.34         | 2.36        | 2.56        | 2.66         | 2.80               | -                | 2.73        | 2.53        | 2.88           | 2.47           | 1.91           | <b>2.58</b> |
| 3    | Co 14012          | 2.67           | 3.14             | 2.33         | 2.42        | 2.45        | 2.63         | 2.73               | -                | 2.88        | 2.85        | 2.78           | 2.59           | 2.49           | <b>2.66</b> |
| 4    | Co 14016          | 2.51           | 3.34             | 2.62         | 2.57        | 2.55        | 2.58         | 2.60               | -                | 2.78        | 2.82        | 2.78           | 2.42           | 2.42           | <b>2.67</b> |
| 5    | Co 14027          | 2.67           | 3.43             | 2.58         | 2.99        | 2.58        | 2.90         | 3.07               | -                | 3.08        | 3.05        | 2.90           | 2.81           | 1.91           | <b>2.83</b> |
| 6    | Co 14030          | 2.60           | 2.70             | 2.69         | 2.58        | 2.50        | 2.71         | 2.73               | -                | 2.87        | 3.06        | 2.66           | 2.42           | 2.65           | <b>2.68</b> |
| 7    | Co 14032          | 2.63           | 3.57             | 2.58         | 2.77        | 2.35        | 2.90         | 2.87               | -                | 2.91        | 3.08        | 2.85           | 2.53           | 2.31           | <b>2.78</b> |
| 8    | CoN 14073         | 2.49           | 3.22             | 2.80         | 2.59        | 2.75        | 2.87         | 2.93               | -                | 2.88        | 3.05        | 2.68           | 2.59           | 2.29           | <b>2.76</b> |
| 9    | CoSnk 14102       | 2.40           | 2.88             | 1.96         | 2.45        | 2.51        | 2.61         | 3.03               | -                | 2.80        | 2.55        | 2.50           | 2.41           | 1.92           | <b>2.50</b> |
| 10   | CoSnk 14103       | 2.96           | 3.45             | 2.55         | 3.11        | 2.51        | 2.98         | 2.87               | -                | 2.99        | 3.07        | 2.90           | 2.86           | 2.29           | <b>2.88</b> |
| 11   | CoT 14367         | 2.74           | 3.34             | 2.71         | 2.88        | 2.33        | 3.14         | 3.10               | -                | 3.24        | 3.35        | 3.00           | 2.91           | 2.54           | <b>2.94</b> |
| 12   | CoT 14111         | 2.35           | 2.65             | 2.89         | 2.82        | 2.48        | 2.82         | 3.00               | -                | 2.93        | 2.67        | 2.74           | 2.51           | 2.46           | <b>2.69</b> |
| 13   | CoVC 14062        | 2.75           | 3.55             | 2.65         | 2.91        | 2.56        | 3.14         | 3.03               | -                | 3.11        | 3.10        | 3.24           | 2.63           | 2.44           | <b>2.93</b> |
| 14   | MS 14081          | 2.59           | 3.54             | 2.52         | 3.05        | 2.34        | 2.95         | 3.07               | -                | 2.94        | 2.93        | 3.05           | 2.55           | 2.27           | <b>2.82</b> |
| 15   | MS 14082          | 2.66           | 3.07             | 2.76         | 2.71        | 2.46        | 2.95         | 2.97               | -                | 2.97        | 2.73        | 2.76           | 2.61           | 2.38           | <b>2.75</b> |
|      | <b>Stds</b>       |                |                  |              |             |             |              |                    |                  |             |             |                |                |                |             |
| 1    | Co 86032          | 2.69           | 3.41             | 2.65         | 2.95        | 2.30        | 2.87         | 2.83               | -                | 2.92        | 2.62        | 2.90           | 2.53           | 2.38           | <b>2.75</b> |
| 2    | CoC 671           | 2.71           | 3.75             | 2.57         | 2.99        | 2.58        | 2.82         | 3.00               | -                | 2.87        | 3.21        | 2.66           | 2.89           | 2.10           | <b>2.85</b> |
| 3    | CoSnk 05103       | 2.21           | 3.46             | 2.52         | 2.89        | 2.54        | 2.31         | 2.57               | -                | 2.83        | 2.27        | 2.54           | 2.35           | 1.97           | <b>2.54</b> |
|      | <b>Grand mean</b> | <b>2.61</b>    | <b>3.26</b>      | <b>2.57</b>  | <b>2.76</b> | <b>2.49</b> | <b>2.81</b>  | <b>2.89</b>        | <b>-</b>         | <b>2.92</b> | <b>2.88</b> | <b>2.70</b>    | <b>2.59</b>    | <b>2.26</b>    | <b>2.73</b> |
|      | SE                | 0.09           | 0.15             | 0.09         | 0.11        | 0.03        | 0.07         | 0.09               | -                | 0.07        | 0.04        | 0.10           | 0.09           | 0.10           |             |
|      | CD                | 0.25           | 0.44             | 0.25         | 0.32        | 0.09        | 0.19         | 0.25               | -                | 0.21        | 0.12        | 0.30           | 0.27           | 0.27           |             |
|      | CV                | 5.80           | 8.16             | 5.86         | 7.04        | 2.12        | 4.15         | 5.20               | -                | 4.42        | 2.46        | 6.39           | 4.88           | 7.32           |             |

**Table 2.2.13 Single cane weight (kg) at harvest**

| S No | Entries           | Coimbatore  | Basmathnagar | Kolhapur    | Mandva      | Navsari     | Padegaon    | Perumalappalle | Pravaranagar | Pune        | Rudrur      | Sameerwadi  | Sankeshwar  | Thiruvalla  | Mean        |
|------|-------------------|-------------|--------------|-------------|-------------|-------------|-------------|----------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1    | Co 14002          | 1.06        | 1.39         | 1.33        | 1.05        | 0.98        | 1.03        | 0.92           | -            | 1.57        | 1.58        | 1.34        | 1.34        | 0.91        | <b>1.21</b> |
| 2    | Co 14004          | 0.80        | 1.18         | 1.12        | 0.88        | 1.07        | 1.16        | 1.20           | -            | 1.35        | 1.33        | 1.21        | 1.24        | 0.95        | <b>1.12</b> |
| 3    | Co 14012          | 1.08        | 1.04         | 1.16        | 0.71        | 1.02        | 1.06        | 1.02           | -            | 1.49        | 1.27        | 0.94        | 1.27        | 1.29        | <b>1.11</b> |
| 4    | Co 14016          | 0.94        | 1.11         | 1.15        | 1.07        | 1.03        | 1.19        | 1.10           | -            | 1.61        | 1.42        | 1.21        | 1.12        | 1.22        | <b>1.18</b> |
| 5    | Co 14027          | 1.42        | 1.22         | 1.16        | 1.34        | 1.03        | 1.38        | 1.68           | -            | 1.42        | 1.39        | 1.16        | 1.32        | 0.95        | <b>1.29</b> |
| 6    | Co 14030          | 0.95        | 1.29         | 1.75        | 0.90        | 1.00        | 1.27        | 1.35           | -            | 1.37        | 1.55        | 0.94        | 0.95        | 1.61        | <b>1.24</b> |
| 7    | Co 14032          | 1.15        | 1.56         | 1.39        | 1.17        | 0.88        | 1.02        | 1.45           | -            | 1.31        | 1.53        | 1.03        | 1.40        | 1.14        | <b>1.25</b> |
| 8    | CoN 14073         | 1.28        | 1.16         | 1.84        | 1.18        | 1.32        | 1.56        | 1.47           | -            | 1.74        | 1.74        | 0.93        | 1.62        | 1.19        | <b>1.42</b> |
| 9    | CoSnk 14102       | 1.18        | 1.37         | 1.17        | 1.33        | 1.02        | 1.27        | 1.51           | -            | 1.52        | 1.24        | 1.29        | 1.35        | 0.93        | <b>1.26</b> |
| 10   | CoSnk 14103       | 1.17        | 1.42         | 1.25        | 1.57        | 0.95        | 1.62        | 1.58           | -            | 1.58        | 1.32        | 1.21        | 1.99        | 1.23        | <b>1.41</b> |
| 11   | CoT 14367         | 1.10        | 1.63         | 1.38        | 1.05        | 0.87        | 1.09        | 1.89           | -            | 1.59        | 1.40        | 1.19        | 1.73        | 1.46        | <b>1.36</b> |
| 12   | CoT1 14111        | 0.97        | 1.62         | 1.51        | 1.00        | 1.07        | 1.35        | 1.53           | -            | 1.96        | 1.66        | 1.30        | 1.29        | 1.25        | <b>1.38</b> |
| 13   | CoVC 14062        | 1.17        | 1.22         | 1.32        | 1.35        | 1.00        | 1.49        | 1.80           | -            | 1.94        | 1.60        | 1.73        | 1.64        | 1.39        | <b>1.47</b> |
| 14   | MS 14081          | 1.20        | 1.20         | 1.25        | 1.36        | 0.90        | 1.56        | 1.54           | -            | 1.58        | 1.49        | 1.28        | 1.80        | 1.16        | <b>1.36</b> |
| 15   | MS 14082          | 1.37        | 1.77         | 1.31        | 1.38        | 1.02        | 1.43        | 1.58           | -            | 1.75        | 1.45        | 1.10        | 1.51        | 1.54        | <b>1.43</b> |
|      | <b>Stds</b>       |             |              |             |             |             |             |                |              |             |             |             |             |             |             |
| 1    | Co 86032          | 1.20        | 1.44         | 1.47        | 1.45        | 0.98        | 1.43        | 1.58           | -            | 1.44        | 1.34        | 1.28        | 1.34        | 1.28        | <b>1.35</b> |
| 2    | CoC 671           | 1.39        | 1.72         | 1.24        | 1.30        | 1.05        | 1.04        | 1.33           | -            | 1.41        | 1.45        | 1.05        | 1.55        | 1.15        | <b>1.31</b> |
| 3    | CoSnk 05103       | 0.73        | 1.22         | 1.33        | 1.13        | 1.08        | 0.86        | 1.03           | -            | 1.22        | 0.94        | 0.96        | 1.16        | 0.94        | <b>1.05</b> |
|      | <b>Grand mean</b> | <b>1.12</b> | <b>1.37</b>  | <b>1.34</b> | <b>1.18</b> | <b>1.01</b> | <b>1.27</b> | <b>1.42</b>    | -            | <b>1.55</b> | <b>1.43</b> | <b>1.10</b> | <b>1.42</b> | <b>1.20</b> | <b>1.28</b> |
|      | SE                | 0.07        | 0.12         | 0.08        | 0.11        | 0.04        | 0.11        | 0.06           | -            | 0.07        | 0.03        | 0.11        | 0.12        | 0.06        |             |
|      | CD                | 0.20        | 0.34         | 0.22        | 0.31        | 0.11        | 0.30        | 0.16           | -            | 0.21        | 0.08        | 0.33        | 0.37        | 0.17        |             |
|      | CV                | 10.51       | 15.14        | 10.10       | 15.81       | 6.77        | 14.44       | 6.83           | -            | 8.36        | 3.32        | 16.93       | 12.34       | 8.75        |             |

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**Table 2.2.14 No. of Shoots (000/ha) at 180 days**

| S No | Entries           | Coimbatore | Basmathnagar | Kolhapur | Mandya       | Navsari       | Padegaon      | Perumalappalle | Pravarannagar | Pune         | Rudrur       | Sameerwadi    | Sankeshwar   | Thiruvalla    | Mean          |
|------|-------------------|------------|--------------|----------|--------------|---------------|---------------|----------------|---------------|--------------|--------------|---------------|--------------|---------------|---------------|
| 1    | Co 14002          | -          | -            | -        | 85.28        | 139.69        | 146.99        | 54.98          | 121.62        | 85.25        | 72.74        | 107.66        | 71.69        | 97.99         | 102.14        |
| 2    | Co 14004          | -          | -            | -        | 86.46        | 146.41        | 146.30        | 71.76          | 120.35        | 83.53        | 72.28        | 121.33        | 79.62        | 108.03        | 107.50        |
| 3    | Co 14012          | -          | -            | -        | 55.49        | 147.96        | 135.65        | 66.14          | 126.70        | 80.78        | 92.59        | 104.66        | 70.99        | 106.40        | 103.21        |
| 4    | Co 14016          | -          | -            | -        | 109.31       | 150.25        | 140.28        | 73.00          | 130.62        | 104.71       | 110.50       | 100.33        | 85.55        | 115.35        | 115.47        |
| 5    | Co 14027          | -          | -            | -        | 60.69        | 140.79        | 99.54         | 66.53          | 134.92        | 60.17        | 82.05        | 82.33         | 65.68        | 99.61         | 93.92         |
| 6    | Co 14030          | -          | -            | -        | 87.36        | 135.31        | 107.41        | 75.85          | 134.45        | 78.05        | 76.50        | 106.66        | 71.69        | 102.62        | 101.02        |
| 7    | Co 14032          | -          | -            | -        | 85.90        | 125.31        | 111.57        | 62.52          | 116.81        | 63.50        | 79.98        | 100.66        | 83.08        | 92.90         | 95.23         |
| 8    | CoN 14073         | -          | -            | -        | 94.44        | 143.39        | 112.50        | 54.05          | 109.31        | 101.37       | 86.69        | 93.66         | 69.84        | 124.61        | 103.02        |
| 9    | CoSnk 14102       | -          | -            | -        | 67.92        | 125.43        | 118.06        | 69.99          | 113.39        | 74.26        | 86.98        | 91.33         | 72.23        | 97.22         | 94.75         |
| 10   | CoSnk 14103       | -          | -            | -        | 63.19        | 127.31        | 72.22         | 82.39          | 121.97        | 54.31        | 73.84        | 97.66         | 37.65        | 104.86        | 87.52         |
| 11   | CoT 14367         | -          | -            | -        | 71.94        | 127.12        | 110.88        | 65.60          | 126.95        | 49.72        | 73.56        | 78.33         | 61.29        | 118.75        | 91.93         |
| 12   | CoT1 14111        | -          | -            | -        | 80.00        | 151.62        | 117.59        | 80.47          | 116.85        | 82.43        | 89.00        | 93.66         | 65.68        | 110.80        | 103.61        |
| 13   | CoVC 14062        | -          | -            | -        | 67.29        | 134.16        | 93.98         | 63.22          | 121.05        | 69.35        | 76.97        | 82.33         | 61.68        | 121.53        | 93.25         |
| 14   | MS 14081          | -          | -            | -        | 67.71        | 132.91        | 110.65        | 61.22          | 132.54        | 72.35        | 62.80        | 82.33         | 64.91        | 97.69         | 92.55         |
| 15   | MS 14082          | -          | -            | -        | 82.22        | 147.72        | 140.28        | 86.24          | 131.71        | 85.13        | 113.19       | 98.00         | 69.22        | 119.29        | 110.97        |
|      | <b>Stds</b>       |            |              |          |              |               |               |                |               |              |              |               |              |               |               |
| 1    | Co 86032          | -          | -            | -        | 108.19       | 121.75        | 135.88        | 72.61          | 143.41        | 79.22        | 78.76        | 110.00        | 66.45        | 113.97        | 104.73        |
| 2    | CoC 671           | -          | -            | -        | 79.03        | 111.90        | 85.65         | 63.06          | 132.16        | 54.78        | 67.21        | 85.66         | 50.51        | 103.55        | 85.95         |
| 3    | CoSnk 05103       | -          | -            | -        | 112.78       | 135.20        | 148.38        | 99.79          | 129.39        | 96.03        | 132.66       | 120.00        | 70.92        | 111.03        | 117.40        |
|      | <b>Grand mean</b> |            |              |          | <b>81.40</b> | <b>135.79</b> | <b>118.54</b> | <b>70.52</b>   | <b>126.06</b> | <b>76.39</b> | <b>84.91</b> | <b>105.22</b> | <b>67.70</b> | <b>108.12</b> | <b>100.95</b> |
|      | SE                | -          | -            | -        | 5.97         | 4.05          | 9.07          | 5.20           | 1.00          | 5.45         | 5.47         | 6.06          | 5.41         | 5.29          |               |
|      | CD                | -          | -            | -        | 17.14        | 11.65         | 26.08         | 14.94          | 2.87          | 15.66        | 15.73        | 17.50         | 16.13        | 15.03         |               |
|      | CV                | -          | -            | -        | 12.69        | 5.17          | 13.26         | 12.77          | 1.37          | 12.36        | 11.16        | 10.76         | 11.29        | 8.93          |               |

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**Table 2.2.15 Number of tillers ('000/ha) at 90 days**

| S No | Entries           | Coimba<br>tore | Basmath<br>nagar | Kolha<br>pur | Mandva        | Navsari       | Pade<br>gaon  | Perumall<br>apalle | Pravara<br>nagar | Pune          | Rudrur        | Sameer<br>wadi | Sankesh<br>war | Thiru<br>valla | Mean          |
|------|-------------------|----------------|------------------|--------------|---------------|---------------|---------------|--------------------|------------------|---------------|---------------|----------------|----------------|----------------|---------------|
| 1    | Co 14002          | 152.55         | -                | 101.21       | 210.69        | 155.26        | 156.25        | 93.71              | 111.11           | 169.99        | 124.36        | 151.66         | 104.49         | 105.40         | <b>136.39</b> |
| 2    | Co 14004          | 142.53         | -                | 93.52        | 187.85        | 163.86        | 161.34        | 142.68             | 111.03           | 166.66        | 133.56        | 148.00         | 106.49         | 116.36         | <b>139.49</b> |
| 3    | Co 14012          | 153.47         | -                | 94.39        | 157.64        | 163.56        | 145.14        | 125.43             | 118.90           | 225.97        | 137.96        | 113.00         | 121.28         | 111.03         | <b>138.98</b> |
| 4    | Co 14016          | 165.57         | -                | 80.26        | 250.14        | 165.87        | 161.34        | 172.40             | 121.22           | 182.95        | 141.96        | 140.33         | 125.28         | 126.62         | <b>152.83</b> |
| 5    | Co 14027          | 109.43         | -                | 89.81        | 149.31        | 161.07        | 106.48        | 106.34             | 124.43           | 129.68        | 94.85         | 104.33         | 83.08          | 110.57         | <b>114.11</b> |
| 6    | Co 14030          | 119.44         | -                | 106.08       | 177.43        | 158.51        | 104.63        | 117.66             | 123.01           | 153.89        | 102.55        | 152.33         | 91.40          | 115.89         | <b>126.90</b> |
| 7    | Co 14032          | 112.21         | -                | 89.81        | 214.10        | 146.10        | 124.77        | 123.43             | 104.65           | 147.43        | 80.73         | 145.66         | 97.10          | 102.47         | <b>124.04</b> |
| 8    | CoN 14073         | 122.92         | -                | 97.05        | 221.39        | 166.55        | 138.43        | 117.35             | 100.62           | 206.95        | 127.78        | 167.33         | 107.72         | 137.12         | <b>142.60</b> |
| 9    | CoSnk 14102       | 125.98         | -                | 104.40       | 208.61        | 148.17        | 143.29        | 96.71              | 101.95           | 183.92        | 135.76        | 140.33         | 106.41         | 106.17         | <b>133.48</b> |
| 10   | CoSnk 14103       | 92.25          | -                | 87.14        | 199.86        | 150.71        | 78.47         | 186.03             | 112.57           | 125.30        | 93.75         | 139.33         | 47.66          | 116.59         | <b>119.14</b> |
| 11   | CoT 14367         | 78.47          | -                | 97.57        | 189.44        | 150.38        | 114.58        | 104.95             | 117.77           | 157.53        | 93.11         | 146.00         | 101.64         | 131.10         | <b>123.55</b> |
| 12   | CoTl 14111        | 176.97         | -                | 118.40       | 171.60        | 172.51        | 134.72        | 154.69             | 107.70           | 171.94        | 135.42        | 117.00         | 106.80         | 119.37         | <b>140.59</b> |
| 13   | CoYC 14062        | 98.09          | -                | 90.54        | 189.79        | 153.86        | 130.79        | 93.71              | 112.72           | 144.72        | 101.04        | 143.33         | 87.70          | 132.02         | <b>123.19</b> |
| 14   | MS 14081          | 125.23         | -                | 116.96       | 148.19        | 156.17        | 139.58        | 134.90             | 121.99           | 175.18        | 88.77         | 139.33         | 99.72          | 102.70         | <b>129.06</b> |
| 15   | MS 14082          | 153.53         | -                | 98.67        | 191.88        | 170.24        | 160.19        | 153.69             | 118.73           | 221.80        | 178.07        | 175.66         | 94.63          | 129.47         | <b>153.88</b> |
|      | <b>Stds</b>       |                |                  |              |               |               |               |                    |                  |               |               |                |                |                |               |
| 1    | Co 86032          | 110.76         | -                | 95.54        | 209.86        | 149.85        | 150.46        | 124.51             | 136.58           | 155.99        | 97.80         | 144.66         | 91.40          | 122.45         | <b>132.49</b> |
| 2    | CoC 671           | 124.42         | -                | 79.29        | 185.14        | 135.95        | 83.10         | 82.16              | 122.89           | 124.12        | 63.72         | 130.66         | 70.22          | 110.49         | <b>109.35</b> |
| 3    | CoSnk 05103       | 185.30         | -                | 104.98       | 282.57        | 153.37        | 169.68        | 99.79              | 122.99           | 155.68        | 191.78        | 156.66         | 102.80         | 117.05         | <b>153.55</b> |
|      | <b>Grand mean</b> | <b>130.51</b>  | -                | <b>96.98</b> | <b>196.97</b> | <b>156.78</b> | <b>133.51</b> | <b>123.90</b>      | <b>116.18</b>    | <b>166.65</b> | <b>117.94</b> | <b>143.99</b>  | <b>96.99</b>   | <b>117.38</b>  | <b>133.15</b> |
|      | SE                | 25.73          | -                | 4.57         | 6.84          | 4.62          | 10.49         | 12.12              | 0.12             | 6.42          | 10.95         | 16.30          | 11.67          | 5.99           |               |
|      | CD                | 8.91           | -                | 13.13        | 19.65         | 13.29         | 30.15         | 34.84              | 1.22             | 18.45         | 31.47         | NS             | 34.81          | 17.02          |               |
|      | CV                | 11.83          | -                | 8.16         | 6.01          | 5.11          | 13.61         | 16.95              | 0.63             | 6.67          | 16.08         | 19.89          | 17.01          | 8.83           |               |



**Table 2.2.16 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S.No | Entries          | Coimbatore | Mandya                   | Perumalapalle | Pugalur               | Sameerwadi | Sankeshwar | Thiruvalla | Belagavi | Kolhapur                 |        |
|------|------------------|------------|--------------------------|---------------|-----------------------|------------|------------|------------|----------|--------------------------|--------|
| 1    | Co 14002         | better     | Better                   | Poor          | Abandoned due to wilt | On par     | On par     | average    | No Trial | Better                   |        |
| 2    | Co 14004         | better     | Poor                     | On par        |                       | On par     | On par     | On par     | On par   | On Par                   | On Par |
| 3    | Co 14012         | better     | Poor                     | Poor          |                       | better     | Better     | On par     | On par   | Poor                     | Poor   |
| 4    | Co 14016         | better     | On Par                   | Better        |                       | better     | Better     | On par     | On par   | On Par                   | On Par |
| 5    | Co 14027         | better     | Poor                     | Better        |                       | On par     | Better     | On par     | On par   | Better                   | Better |
| 6    | Co 14030         | On par     | Poor                     | On par        |                       | On par     | On par     | On par     | On par   | On Par                   | On Par |
| 7    | Co 14032         | Poor       | Better                   | On par        |                       | better     | Better     | On par     | On par   | Better                   | Better |
| 8    | CoN 14073        | better     | On Par                   | On Par        |                       | On par     | Better     | On par     | On par   | Better                   | Better |
| 9    | CoSnk 14102      | On par     | Better                   | Poor          |                       | On par     | Better     | average    | average  | Better                   | Better |
| 10   | CoSnk 14103      | better     | Poor                     | On Par        |                       | average    | Better     | On par     | On par   | On Par                   | On Par |
| 11   | CoT 14367        | poor       | Poor                     | Better        |                       | average    | On par     | On par     | On par   | On Par                   | On Par |
| 12   | CoT1 14111       | on par     | Better                   | Better        |                       | On par     | Better     | On par     | On par   | Better                   | Better |
| 13   | CoVC 14062       | poor       | Better                   | On par        |                       | On par     | On par     | On par     | On par   | On Par                   | On Par |
| 14   | MS 14081         | better     | Better                   | Poor          |                       | On par     | On par     | On par     | On par   | On Par                   | On Par |
| 15   | MS 14082         | better     | On Par                   | Better        |                       | On par     | Better     | Better     | On par   | Better                   | Better |
|      | Std1 Co 86032    | Best std   | 2 <sup>nd</sup> best std |               | Better std            | Best Std.  | Best check |            |          | Best std                 |        |
|      | Std2 CoC 671     | On par     | 3 <sup>rd</sup> best std |               | On par                | On par     | On par     | On par     |          | On Par                   |        |
|      | Std3 CoSnk 05103 | poor       | Best std                 |               | On par                | On par     | On par     | On par     |          | 2 <sup>nd</sup> best std |        |

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| No.                | Variety     | Navsari   | Pune      | Padegaon  | Rudrur    | Pravaranagar | Tharsa | Kawardha | Powerkheda    |
|--------------------|-------------|-----------|-----------|-----------|-----------|--------------|--------|----------|---------------|
| 1                  | Co 14002    | Good      | Very good | Average   | Good      | Good         | -      | -        | Not Conducted |
| 2                  | Co 14004    | Very Good | Good      | Average   | Average   | Good         | -      | -        |               |
| 3                  | Co 14012    | Good      | Good      | Poor      | Good      | Very Good    | -      | -        |               |
| 4                  | Co 14016    | Very Good | Excellent | Very good | Very Good | Average      | -      | -        |               |
| 5                  | Co 14027    | Good      | Poor      | Average   | Very Good | Good         | -      | -        |               |
| 6                  | Co 14030    | Average   | Average   | Good      | Good      | Good         | -      | -        |               |
| 7                  | Co 14032    | Poor      | Average   | Average   | Average   | Good         | -      | -        |               |
| 8                  | CoN 14073   | Very Good | Excellent | Excellent | Very good | Very Good    | -      | -        |               |
| 9                  | CoSnk 14102 | Average   | Good      | Average   | Good      | Good         | -      | -        |               |
| 10                 | CoSnk 14103 | Poor      | Good      | Good      | Average   | Good         | -      | -        |               |
| 11                 | CoT 14367   | Average   | Poor      | Poor      | Average   | Good         | -      | -        |               |
| 12                 | CoTl 14111  | Good      | Very good | Average   | Good      | Good         | -      | -        |               |
| 13                 | CoVC 14062  | Good      | Average   | Average   | Average   | Good         | -      | -        |               |
| 14                 | MS 14081    | Very Good | Good      | Good      | Average   | Average      | -      | -        |               |
| 15                 | MS 14082    | Good      | Very good | Very good | Good      | Very Good    | -      | -        |               |
| <b>Standards :</b> |             |           |           |           |           |              |        |          |               |
| 16                 | Co 86032    | Average   | Very good | Excellent | Good      | Good         | -      | -        |               |
| 17                 | CoC 671     | Poor      | Good      | Very good | Good      | Average      | -      | -        |               |
| 18                 | CoSnk 05103 | Good      | Good      | Average   | Good      | Good         | -      | -        |               |

## **2.3. Advanced Varietal Trial - Pooled data (2019-2021)**

### **2.3 Mean performance of two plant and one ratoon crops (2019—2021)**

Fifteen entries were evaluated along with three standards (Co 86032, CoC 671 & CoSnk 05103) in fourteen centers under AVT IP during 2019-20 and AVT IIP during 2020-21. The trials were not conducted at Tharsa, Kawarda, Powerkheda, and Sirugamani. Only 13 centres conducted complete set of two plant and one ratoon crop. Among the centres, wide disparity was observed for specific characters in a few centres. Though standard Co 86032 is not a suitable variety in Mandya region the data showed that Co 86032 had registered the highest cane yield compared to all test entries. Though Perumallapalle conducted all the tree trials, there were vast difference in cane yield values between first and second plant crop, and first plant and ratoon, even for standards. At Kolhapur, the first plant crop showed poor performance of all standards and majority of entries for cane yield due to water logging. The data of Basmathnagar deviated from those of other centres, as reported in the previous AICRP workshop, for instance sucrose % of CoC 671 was lower than Co 86032. Mean performance of fifteen entries compared to zonal standards across peninsular zone in terms of weighted average is presented in Tables 2.3.1 to 2.3.4 and Fig 2.3.1 to 2.3.4. The salient results pertaining to CCS (t/ha), cane yield (t/ha), CCS % and sucrose % are discussed below.

#### **2.3.1 Commercial Cane Sugar (t/ha):**

One test entry i.e., MS 14082 (16.71 t/ha) recorded higher sugar yield (t/ha) compared to the best standard Co 86032 (15.53 t/ha) and showed an improvement of 7.60 % over Co 86032.

#### **2.3.2 Cane yield (t/ha):**

The entry MS 14082 recorded the highest cane yield of 124.17 t/ha followed by CoN 14073 (119.48 t/ha) compared to the best standard Co 86032 (113.90 t/ha) in the zone. MS 14082 had shown an improvement of 9.02% and CoN 14073 had 4.91% improvement over the best standard Co 86032. MS 14082 recorded better yield values than that of Co 86032 in all the centers except Mandya, Pravaranagar, Pugalur and Sameerwadi.

#### **2.3.3 CCS %:**

For CCS%, none of the entries was better than the best standard CoC 671 (14.15%), however seven entries recorded higher CCS% than Co 86032 (13.28%). Among the entries, Co 14012 recorded the highest CCS of 13.72% followed by Co 14004 (13.55%) and Co 14032 (13.54 %). None of the entries had shown more than 5% improvement for CCS%.

#### **2.3.4 Sucrose %:**

None of the entries was superior to the best standard CoC 671 (20.00%) for juice sucrose however, five entries recorded higher mean sucrose % than Co 86032 (18.85%) and the entry best Co 14012 recorded 3.27% improvement over Co 86032.

**Overall performance:** Based on the weighted average of two plant and one ratoon crops, the entry MS 14082 had shown an improvement of 7.60 % over Co 86032 for sugar yield. For cane yield, the entry MS 14082 had shown an improvement of 9.02% and the entry CoN 14073 had 4.91% improvement over the best standard Co 86032. For juice quality traits, the entry Co 14012 had shown 3.27% improvement over Co 86032. Based the pooled data, none of the entries qualified in peninsular zone.

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**Table 2.3.1 CCS t/ha at harvest**

| S No | Entries           | Coimbatore   |              |              |              | Basmathnagar |              |              |              | Kolhapur    |              |              |              | Mandya       |              |              |              |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP      | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |
| 1    | Co 14002          | 19.37        | 18.18        | 17.80        | <b>18.45</b> | 14.62        | 14.88        | 14.28        | <b>14.59</b> | 13.48       | 16.49        | 11.29        | <b>13.75</b> | 13.24        | 13.01        | 9.26         | <b>11.84</b> |
| 2    | Co 14004          | 20.20        | 14.76        | 12.26        | <b>15.74</b> | 11.13        | 12.71        | 10.72        | <b>11.52</b> | 9.42        | 12.95        | 9.39         | <b>10.59</b> | 14.77        | 13.19        | 10.14        | <b>12.70</b> |
| 3    | Co 14012          | 17.87        | 15.17        | 15.35        | <b>16.13</b> | 7.90         | 13.80        | 7.89         | <b>9.86</b>  | 6.30        | 18.84        | 10.58        | <b>11.91</b> | 12.12        | 10.61        | 8.44         | <b>10.39</b> |
| 4    | Co 14016          | 20.53        | 19.49        | 17.15        | <b>19.06</b> | 10.57        | 14.79        | 9.03         | <b>11.46</b> | 5.70        | 12.18        | 8.25         | <b>8.71</b>  | 15.36        | 14.57        | 15.27        | <b>15.07</b> |
| 5    | Co 14027          | 20.30        | 19.33        | 19.77        | <b>19.80</b> | 8.73         | 13.72        | 11.81        | <b>11.42</b> | 5.82        | 14.17        | 9.65         | <b>9.88</b>  | 15.43        | 13.86        | 15.61        | <b>14.97</b> |
| 6    | Co 14030          | 16.55        | 13.80        | 10.48        | <b>13.61</b> | 12.63        | 15.02        | 14.02        | <b>13.89</b> | 9.31        | 16.03        | 11.94        | <b>12.43</b> | 11.36        | 11.09        | 11.52        | <b>11.32</b> |
| 7    | Co 14032          | 16.52        | 13.80        | 12.00        | <b>14.11</b> | 13.29        | 13.38        | 16.04        | <b>14.24</b> | 10.46       | 13.27        | 12.44        | <b>12.06</b> | 15.94        | 13.23        | 10.93        | <b>13.37</b> |
| 8    | CoN 14073         | 15.67        | 16.40        | 13.25        | <b>15.11</b> | 12.33        | 18.09        | 10.33        | <b>13.58</b> | 21.10       | 12.98        | 13.05        | <b>15.71</b> | 14.29        | 16.05        | 10.60        | <b>13.65</b> |
| 9    | CoSnk 14102       | 16.80        | 17.79        | 15.14        | <b>16.58</b> | 12.13        | 14.32        | 14.56        | <b>13.67</b> | 5.76        | 12.28        | 10.50        | <b>9.51</b>  | 15.97        | 12.98        | 11.30        | <b>13.42</b> |
| 10   | CoSnk 14103       | 12.60        | 15.59        | 11.07        | <b>13.09</b> | 12.30        | 14.56        | 10.38        | <b>12.41</b> | 5.84        | 12.46        | 9.42         | <b>9.24</b>  | 15.89        | 10.49        | 8.66         | <b>11.68</b> |
| 11   | CoT 14367         | 9.47         | 12.32        | 8.67         | <b>10.15</b> | 11.63        | 11.48        | 17.36        | <b>13.49</b> | 5.70        | 12.67        | 10.93        | <b>9.77</b>  | 12.29        | 9.39         | 6.44         | <b>9.37</b>  |
| 12   | CoT1 14111        | 13.20        | 17.38        | 14.60        | <b>15.06</b> | 14.33        | 13.34        | 16.90        | <b>14.86</b> | 13.85       | 18.34        | 13.43        | <b>15.21</b> | 14.81        | 12.67        | 10.31        | <b>12.60</b> |
| 13   | CoVC 14062        | 14.43        | 14.08        | 10.47        | <b>12.99</b> | 9.98         | 14.59        | 9.89         | <b>11.49</b> | 7.17        | 14.43        | 10.49        | <b>10.70</b> | 17.23        | 14.53        | 14.55        | <b>15.44</b> |
| 14   | MS 14081          | 16.43        | 16.42        | 13.12        | <b>15.32</b> | 10.67        | 11.43        | 11.16        | <b>11.09</b> | 6.25        | 16.75        | 11.12        | <b>11.37</b> | 11.94        | 13.91        | 9.19         | <b>11.68</b> |
| 15   | MS 14082          | 19.23        | 20.38        | 21.70        | <b>20.44</b> | 17.64        | 17.84        | 19.09        | <b>18.19</b> | 6.05        | 16.73        | 14.07        | <b>12.28</b> | 18.05        | 15.36        | 16.43        | <b>16.61</b> |
|      | Standards         |              |              |              |              |              |              |              |              |             |              |              |              |              |              |              |              |
| 1    | Co 86032          | 16.40        | 16.24        | 16.42        | <b>16.35</b> | 16.14        | 16.41        | 15.79        | <b>16.11</b> | 6.27        | 15.98        | 11.67        | <b>11.31</b> | 19.23        | 15.50        | 15.70        | <b>16.81</b> |
| 2    | CoC 671           | 17.30        | 17.77        | 17.30        | <b>17.46</b> | 14.40        | 14.49        | 18.00        | <b>15.63</b> | 5.40        | 13.44        | 9.57         | <b>9.47</b>  | 16.62        | 13.59        | 12.42        | <b>14.21</b> |
| 3    | CoSnk 05103       | 12.07        | 19.40        | 13.80        | <b>15.09</b> | 14.22        | 14.12        | 11.36        | <b>13.23</b> | 6.12        | 13.58        | 10.59        | <b>10.10</b> | 12.99        | 13.91        | 13.80        | <b>13.57</b> |
|      | <b>Grand mean</b> | <b>16.39</b> | <b>16.57</b> | <b>14.46</b> | <b>15.81</b> | <b>12.48</b> | <b>14.39</b> | <b>13.26</b> | <b>13.38</b> | <b>8.33</b> | <b>14.64</b> | <b>11.02</b> | <b>11.33</b> | <b>14.86</b> | <b>13.22</b> | <b>11.70</b> | <b>13.26</b> |

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| S No | Entries           | Navsari      |              |              |              | Padegaon     |              |              |              | Perumallapalle |              |              |              | Pravaranagar |              |              |              |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP         | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |
| 1    | Co 14002          | 17.96        | 15.58        | 14.98        | <b>16.17</b> | 13.71        | 18.46        | 13.76        | <b>15.31</b> | 9.29           | 14.00        | 6.43         | <b>9.91</b>  | 17.05        | 17.53        | 16.97        | <b>17.18</b> |
| 2    | Co 14004          | 17.62        | 18.62        | 15.36        | <b>17.20</b> | 14.15        | 23.68        | 18.42        | <b>18.75</b> | 12.75          | 16.49        | 11.15        | <b>13.46</b> | 18.89        | 18.96        | 18.58        | <b>18.81</b> |
| 3    | Co 14012          | 17.97        | 16.85        | 15.14        | <b>16.65</b> | 16.92        | 16.88        | 14.41        | <b>16.07</b> | 9.53           | 17.53        | 8.32         | <b>11.79</b> | 21.85        | 22.37        | 21.70        | <b>21.97</b> |
| 4    | Co 14016          | 16.62        | 18.52        | 15.47        | <b>16.87</b> | 17.23        | 21.28        | 17.53        | <b>18.68</b> | 15.80          | 17.30        | 9.76         | <b>14.29</b> | 19.84        | 20.36        | 20.36        | <b>20.19</b> |
| 5    | Co 14027          | 18.53        | 18.75        | 15.06        | <b>17.45</b> | 14.88        | 16.14        | 13.02        | <b>14.68</b> | 13.17          | 24.73        | 12.12        | <b>16.67</b> | 20.44        | 21.01        | 20.73        | <b>20.73</b> |
| 6    | Co 14030          | 16.01        | 16.39        | 13.94        | <b>15.45</b> | 11.86        | 17.07        | 15.45        | <b>14.79</b> | 12.40          | 19.51        | 10.90        | <b>14.27</b> | 21.11        | 21.77        | 20.71        | <b>21.20</b> |
| 7    | Co 14032          | 15.59        | 13.91        | 12.17        | <b>13.89</b> | 12.61        | 19.67        | 11.80        | <b>14.69</b> | 13.34          | 19.90        | 13.47        | <b>15.57</b> | 17.34        | 17.62        | 17.25        | <b>17.40</b> |
| 8    | CoN 14073         | 17.80        | 19.53        | 15.22        | <b>17.52</b> | 17.06        | 17.36        | 16.34        | <b>16.92</b> | 12.10          | 21.61        | 9.97         | <b>14.56</b> | 16.19        | 16.34        | 16.27        | <b>16.27</b> |
| 9    | CoSnk 14102       | 14.97        | 14.87        | 12.26        | <b>14.03</b> | 14.17        | 15.97        | 15.45        | <b>15.20</b> | 10.16          | 16.37        | 12.50        | <b>13.01</b> | 15.91        | 16.04        | 16.39        | <b>16.11</b> |
| 10   | CoSnk 14103       | 14.29        | 14.26        | 12.14        | <b>13.56</b> | 8.95         | 12.46        | 11.13        | <b>10.85</b> | 13.63          | 20.83        | 16.07        | <b>16.84</b> | 18.51        | 18.86        | 18.92        | <b>18.76</b> |
| 11   | CoT 14367         | 16.80        | 11.28        | 10.41        | <b>12.83</b> | 10.20        | 13.28        | 9.36         | <b>10.95</b> | 16.93          | 18.83        | 14.67        | <b>16.81</b> | 18.87        | 19.41        | 18.97        | <b>19.08</b> |
| 12   | CoT 14111         | 16.60        | 14.81        | 13.76        | <b>15.06</b> | 14.44        | 19.55        | 16.34        | <b>16.78</b> | 12.54          | 19.56        | 14.96        | <b>15.69</b> | 17.85        | 18.01        | 17.40        | <b>17.75</b> |
| 13   | CoYC 14062        | 15.78        | 14.88        | 12.91        | <b>14.52</b> | 11.92        | 16.57        | 14.01        | <b>14.17</b> | 17.12          | 20.49        | 14.36        | <b>17.32</b> | 19.12        | 19.29        | 19.34        | <b>19.25</b> |
| 14   | MS 14081          | 17.59        | 11.58        | 10.33        | <b>13.17</b> | 15.79        | 19.32        | 15.87        | <b>16.99</b> | 12.87          | 15.22        | 11.58        | <b>13.22</b> | 19.52        | 20.57        | 20.25        | <b>20.11</b> |
| 15   | MS 14082          | 16.30        | 18.46        | 14.55        | <b>16.44</b> | 17.92        | 23.08        | 16.32        | <b>19.11</b> | 18.00          | 23.05        | 17.55        | <b>19.53</b> | 19.22        | 19.01        | 18.44        | <b>18.89</b> |
|      | Standards         |              |              |              |              |              |              |              |              |                |              |              |              |              |              |              |              |
| 1    | Co 86032          | 13.24        | 14.20        | 11.55        | <b>13.00</b> | 14.38        | 23.44        | 19.66        | <b>19.16</b> | 13.59          | 22.29        | 14.22        | <b>16.70</b> | 22.71        | 22.50        | 21.90        | <b>22.37</b> |
| 2    | CoC 671           | 15.26        | 14.43        | 11.50        | <b>13.73</b> | 11.57        | 17.49        | 8.25         | <b>12.44</b> | 9.81           | 17.84        | 10.75        | <b>12.80</b> | 21.75        | 21.56        | 20.96        | <b>21.42</b> |
| 3    | CoSnk 05103       | 13.80        | 15.92        | 12.11        | <b>13.94</b> | 12.31        | 15.11        | 12.57        | <b>13.33</b> | 13.14          | 20.83        | 11.93        | <b>15.30</b> | 18.12        | 17.53        | 17.26        | <b>17.64</b> |
|      | <b>Grand mean</b> | <b>16.26</b> | <b>15.71</b> | <b>13.27</b> | <b>15.08</b> | <b>13.89</b> | <b>18.16</b> | <b>14.43</b> | <b>15.49</b> | <b>13.12</b>   | <b>19.24</b> | <b>12.01</b> | <b>14.79</b> | <b>19.13</b> | <b>19.37</b> | <b>19.02</b> | <b>19.17</b> |

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| S No | Entries           | Pugalur      |              |            |              | Pune         |              |              |              | Rudrur       |              |              |              | Sameerwadi   |              |              |              |
|------|-------------------|--------------|--------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |
| 1    | Co 14002          | 14.24        | 13.46        | -          | <b>13.85</b> | 21.03        | 23.21        | 20.09        | <b>21.44</b> | 16.97        | 14.89        | 12.33        | <b>14.73</b> | 15.79        | 6.76         | 20.56        | <b>14.37</b> |
| 2    | Co 14004          | 14.40        | 10.30        | -          | <b>12.35</b> | 18.29        | 20.47        | 16.62        | <b>18.46</b> | 13.98        | 13.53        | 12.62        | <b>13.38</b> | 16.99        | 10.25        | 15.76        | <b>14.33</b> |
| 3    | Co 14012          | 15.36        | 12.23        | -          | <b>13.80</b> | 19.25        | 21.04        | 18.71        | <b>19.67</b> | 13.33        | 13.18        | 13.41        | <b>13.31</b> | 11.81        | 10.42        | 16.45        | <b>12.89</b> |
| 4    | Co 14016          | 17.35        | 16.74        | -          | <b>17.05</b> | 16.30        | 23.01        | 21.26        | <b>20.19</b> | 14.66        | 15.70        | 15.27        | <b>15.21</b> | 17.99        | 11.56        | 19.21        | <b>16.25</b> |
| 5    | Co 14027          | 12.38        | 16.43        | -          | <b>14.41</b> | 10.95        | 15.78        | 10.72        | <b>12.48</b> | 14.07        | 15.88        | 12.77        | <b>14.24</b> | 13.44        | 13.94        | 12.74        | <b>13.37</b> |
| 6    | Co 14030          | 8.33         | 13.00        | -          | <b>10.67</b> | 16.07        | 19.06        | 15.27        | <b>16.80</b> | 13.68        | 15.89        | 11.78        | <b>13.78</b> | 14.92        | 9.28         | 13.69        | <b>12.63</b> |
| 7    | Co 14032          | 9.17         | 11.38        | -          | <b>10.28</b> | 16.30        | 18.31        | 11.06        | <b>15.22</b> | 12.67        | 14.13        | 13.11        | <b>13.30</b> | 13.72        | 9.82         | 13.04        | <b>12.19</b> |
| 8    | CoN 14073         | 10.25        | 15.89        | -          | <b>13.07</b> | 20.22        | 21.49        | 21.90        | <b>21.20</b> | 12.89        | 16.31        | 15.41        | <b>14.87</b> | 19.83        | 10.60        | 17.79        | <b>16.07</b> |
| 9    | CoSnk 14102       | 8.47         | 14.75        | -          | <b>11.61</b> | 16.24        | 18.27        | 14.58        | <b>16.36</b> | 13.41        | 13.82        | 11.83        | <b>13.02</b> | 20.38        | 10.95        | 14.58        | <b>15.30</b> |
| 10   | CoSnk 14103       | 13.09        | 10.77        | -          | <b>11.93</b> | 7.05         | 9.82         | 10.85        | <b>9.24</b>  | 10.06        | 14.56        | 12.63        | <b>12.42</b> | 17.95        | 11.87        | 11.18        | <b>13.67</b> |
| 11   | CoT 14367         | 6.96         | 12.16        | -          | <b>9.56</b>  | 11.17        | 12.65        | 9.98         | <b>11.27</b> | 13.41        | 12.66        | 13.23        | <b>13.10</b> | 12.07        | 11.33        | 12.40        | <b>11.93</b> |
| 12   | CoT 14111         | 13.50        | 14.07        | -          | <b>13.79</b> | 19.78        | 19.54        | 20.23        | <b>19.85</b> | 21.08        | 15.74        | 15.93        | <b>17.58</b> | 19.06        | 8.04         | 14.21        | <b>13.77</b> |
| 13   | CoVC 14062        | 6.38         | 14.50        | -          | <b>10.44</b> | 13.18        | 17.68        | 16.74        | <b>15.87</b> | 12.92        | 17.05        | 14.05        | <b>14.67</b> | 19.17        | 10.99        | 20.14        | <b>16.77</b> |
| 14   | MS 14081          | 7.24         | 9.26         | -          | <b>8.25</b>  | 18.56        | 20.47        | 16.45        | <b>18.49</b> | 10.12        | 14.37        | 12.61        | <b>12.37</b> | 15.11        | 10.84        | 12.49        | <b>12.81</b> |
| 15   | MS 14082          | 11.52        | 15.60        | -          | <b>13.56</b> | 20.28        | 22.41        | 21.01        | <b>21.23</b> | 17.13        | 20.80        | 18.60        | <b>18.84</b> | 17.42        | 12.29        | 12.23        | <b>13.98</b> |
|      | Standards         |              |              |            |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 1    | Co 86032          | 15.35        | 16.27        | -          | <b>15.81</b> | 17.14        | 17.72        | 16.52        | <b>17.13</b> | 12.81        | 13.97        | 13.64        | <b>13.47</b> | 17.20        | 12.54        | 16.97        | <b>15.57</b> |
| 2    | CoC 671           | 14.92        | 16.71        | -          | <b>15.82</b> | 16.56        | 18.64        | 11.93        | <b>15.71</b> | 13.10        | 13.36        | 13.01        | <b>13.16</b> | 16.22        | 12.57        | 14.46        | <b>14.42</b> |
| 3    | CoSnk 05103       | 13.25        | 13.89        | -          | <b>13.57</b> | 13.96        | 14.92        | 13.62        | <b>14.17</b> | 15.65        | 14.07        | 13.48        | <b>14.40</b> | 18.50        | 9.21         | 10.37        | <b>12.69</b> |
|      | <b>Grand mean</b> | <b>11.78</b> | <b>13.74</b> | <b>-</b>   | <b>12.76</b> | <b>16.24</b> | <b>18.58</b> | <b>15.97</b> | <b>16.93</b> | <b>14.00</b> | <b>15.00</b> | <b>13.65</b> | <b>14.22</b> | <b>16.53</b> | <b>11.44</b> | <b>13.93</b> | <b>15.23</b> |

*Varietal Improvement Programme- AICRP (Sugarcane)  
Principal Investigator's Report (2019-21)  
Peninsular zone pooled data of two plant and ratoon*

| S No | Entries           | Sankeshwar   |              |              |              | Thiruvalla   |              |              |              | Overall mean |              |              |              | Weighted Average | Rank |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |                  |      |
| 1    | Co 14002          | 12.39        | 24.73        | 14.72        | 17.28        | 12.06        | 13.06        | 10.41        | 11.84        | 15.09        | 16.02        | 13.06        | 14.72        |                  |      |
| 2    | Co 14004          | 13.22        | 21.60        | 16.98        | 17.27        | 10.13        | 11.18        | 9.17         | 10.16        | 14.71        | 15.62        | 12.66        | 14.33        |                  |      |
| 3    | Co 14012          | 15.73        | 18.56        | 16.78        | 18.51        | 12.60        | 13.65        | 11.87        | 12.71        | 14.19        | 16.08        | 13.01        | 14.43        |                  |      |
| 4    | Co 14016          | 13.83        | 11.83        | 14.05        | 13.24        | 12.04        | 11.90        | 10.53        | 11.49        | 15.27        | 16.37        | 13.80        | 15.15        | 3                |      |
| 5    | Co 14027          | 17.53        | 15.23        | 13.38        | 15.38        | 11.44        | 9.30         | 7.34         | 9.36         | 14.08        | 16.31        | 12.48        | 14.29        |                  |      |
| 6    | Co 14030          | 9.69         | 12.07        | 11.89        | 11.22        | 11.18        | 12.47        | 9.78         | 11.14        | 13.22        | 15.18        | 12.24        | 13.55        |                  |      |
| 7    | Co 14032          | 15.74        | 20.37        | 19.08        | 18.40        | 10.22        | 10.38        | 9.62         | 10.07        | 13.78        | 14.94        | 12.29        | 13.67        |                  |      |
| 8    | CoN 14073         | 14.46        | 16.69        | 17.45        | 16.20        | 12.65        | 12.13        | 10.46        | 11.75        | 15.49        | 16.53        | 13.43        | 15.15        | 3                |      |
| 9    | CoSnk 14102       | 16.28        | 14.67        | 13.75        | 14.90        | 11.29        | 10.53        | 8.28         | 10.03        | 13.71        | 14.54        | 12.22        | 13.49        |                  |      |
| 10   | CoSnk 14103       | 9.51         | 16.30        | 13.63        | 13.15        | 10.89        | 10.30        | 9.28         | 10.16        | 12.18        | 13.80        | 11.10        | 12.36        |                  |      |
| 11   | CoT 14367         | 12.51        | 16.20        | 15.33        | 14.68        | 12.28        | 13.62        | 10.88        | 12.26        | 12.16        | 13.38        | 11.33        | 12.29        |                  |      |
| 12   | CoTI 14111        | 16.43        | 16.59        | 14.62        | 15.88        | 10.96        | 11.34        | 10.24        | 10.85        | 15.60        | 15.64        | 13.78        | 15.01        | 4                |      |
| 13   | CoVC 14062        | 18.46        | 17.80        | 15.92        | 17.39        | 11.69        | 13.19        | 11.73        | 12.20        | 13.90        | 15.72        | 13.19        | 14.27        |                  |      |
| 14   | MS 14081          | 12.30        | 24.58        | 18.93        | 18.60        | 12.15        | 9.94         | 8.24         | 10.11        | 13.32        | 15.33        | 12.24        | 13.63        |                  |      |
| 15   | MS 14082          | 15.27        | 18.39        | 15.17        | 16.28        | 13.27        | 13.93        | 12.23        | 13.14        | 16.24        | 18.38        | 15.53        | 16.71        | 1                |      |
|      | Standards         |              |              |              |              |              |              |              |              |              |              |              |              |                  |      |
| 1    | Co 86032          | 14.75        | 18.89        | 14.31        | 15.98        | 14.26        | 12.94        | 11.71        | 12.97        | 15.25        | 17.06        | 14.29        | 15.53        | 2                |      |
| 2    | CoC 671           | 15.44        | 21.94        | 14.55        | 17.31        | 13.50        | 13.51        | 10.81        | 12.61        | 14.42        | 16.24        | 12.39        | 14.35        |                  |      |
| 3    | CoSnk 05103       | 14.98        | 19.68        | 13.37        | 16.01        | 11.41        | 10.98        | 10.04        | 10.81        | 13.61        | 15.22        | 11.74        | 13.52        |                  |      |
|      | <b>Grand mean</b> | <b>14.36</b> | <b>18.12</b> | <b>15.22</b> | <b>15.90</b> | <b>11.89</b> | <b>11.91</b> | <b>10.15</b> | <b>11.32</b> | <b>14.23</b> | <b>15.67</b> | <b>12.72</b> | <b>14.21</b> |                  |      |

**Table 2.3.2 Cane yield t/ha at harvest**

| S No | Entries           | Coimbatore    |               |               |               | Basmathnagar  |               |              |               | Kolhapur     |               |              |               | Mandya        |              |              |               |
|------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|---------------|--------------|--------------|---------------|
|      |                   | AVT IP        | AVT IIP       | AVT Ratoon    | Mean          | AVT IP        | AVT IIP       | AVT Ratoon   | Mean          | AVT IP       | AVT IIP       | AVT Ratoon   | Mean          | AVT IP        | AVT IIP      | AVT Ratoon   | Mean          |
| 1    | Co 14002          | 143.33        | 133.63        | 124.22        | <b>133.73</b> | 115.97        | 121.92        | 101.28       | <b>113.06</b> | 93.40        | 126.43        | 94.18        | <b>104.67</b> | 102.85        | 94.93        | 69.72        | <b>89.17</b>  |
| 2    | Co 14004          | 140.27        | 104.59        | 84.45         | <b>109.77</b> | 88.80         | 103.31        | 90.74        | <b>94.28</b>  | 81.60        | 105.58        | 74.12        | <b>87.10</b>  | 100.07        | 89.79        | 67.85        | <b>85.90</b>  |
| 3    | Co 14012          | 131.47        | 142.51        | 123.29        | <b>132.43</b> | 69.98         | 106.69        | 72.11        | <b>82.93</b>  | 52.75        | 138.08        | 79.35        | <b>90.06</b>  | 83.47         | 73.89        | 58.06        | <b>71.81</b>  |
| 4    | Co 14016          | 150.42        | 146.80        | 119.24        | <b>138.82</b> | 89.91         | 121.67        | 82.68        | <b>98.09</b>  | 50.36        | 91.37         | 63.47        | <b>68.40</b>  | 106.18        | 101.04       | 109.79       | <b>105.67</b> |
| 5    | Co 14027          | 139.30        | 143.29        | 132.67        | <b>138.42</b> | 76.24         | 109.46        | 79.46        | <b>88.39</b>  | 48.35        | 106.48        | 72.20        | <b>75.68</b>  | 106.74        | 97.36        | 106.11       | <b>103.40</b> |
| 6    | Co 14030          | 121.64        | 99.44         | 77.63         | <b>99.57</b>  | 103.24        | 111.79        | 94.59        | <b>103.21</b> | 94.00        | 126.27        | 105.13       | <b>108.47</b> | 82.29         | 75.69        | 82.36        | <b>80.11</b>  |
| 7    | Co 14032          | 109.73        | 93.81         | 83.42         | <b>95.65</b>  | 114.19        | 112.56        | 105.53       | <b>110.76</b> | 97.41        | 95.64         | 87.93        | <b>93.66</b>  | 110.90        | 89.10        | 77.15        | <b>92.38</b>  |
| 8    | CoN 14073         | 127.60        | 137.53        | 104.06        | <b>123.06</b> | 107.12        | 135.31        | 88.58        | <b>110.34</b> | 150.35       | 119.55        | 118.94       | <b>129.61</b> | 117.02        | 117.15       | 82.08        | <b>105.42</b> |
| 9    | CoSnk 14102       | 132.94        | 143.01        | 111.09        | <b>129.01</b> | 93.18         | 113.79        | 95.81        | <b>100.93</b> | 56.30        | 95.34         | 88.42        | <b>80.02</b>  | 120.00        | 95.42        | 86.74        | <b>100.72</b> |
| 10   | CoSnk 14103       | 92.87         | 118.21        | 91.92         | <b>101.00</b> | 103.70        | 110.64        | 94.44        | <b>102.93</b> | 50.83        | 110.24        | 76.73        | <b>79.27</b>  | 122.01        | 77.85        | 61.04        | <b>86.97</b>  |
| 11   | CoT 14367         | 79.90         | 99.13         | 67.02         | <b>82.02</b>  | 96.55         | 100.16        | 111.33       | <b>102.68</b> | 54.16        | 106.11        | 95.66        | <b>85.31</b>  | 88.54         | 73.75        | 49.10        | <b>70.46</b>  |
| 12   | CoT1 14111        | 104.73        | 136.70        | 106.66        | <b>116.03</b> | 122.47        | 106.09        | 114.74       | <b>114.43</b> | 96.42        | 140.02        | 112.68       | <b>116.37</b> | 108.61        | 95.69        | 81.53        | <b>95.28</b>  |
| 13   | CoVC 14062        | 98.80         | 101.64        | 82.91         | <b>94.45</b>  | 80.82         | 114.40        | 79.65        | <b>91.62</b>  | 64.20        | 111.42        | 85.23        | <b>86.95</b>  | 118.54        | 102.01       | 99.72        | <b>106.76</b> |
| 14   | MS 14081          | 118.25        | 124.00        | 98.38         | <b>113.54</b> | 84.14         | 94.99         | 83.45        | <b>87.53</b>  | 56.10        | 123.58        | 83.34        | <b>87.67</b>  | 84.93         | 93.33        | 61.46        | <b>79.91</b>  |
| 15   | MS 14082          | 145.47        | 162.53        | 147.43        | <b>151.81</b> | 138.87        | 139.67        | 134.32       | <b>137.62</b> | 55.13        | 132.63        | 109.28       | <b>99.01</b>  | 143.20        | 110.69       | 111.74       | <b>121.88</b> |
|      | Standards         |               |               |               |               |               |               |              |               |              |               |              |               |               |              |              |               |
| 1    | Co 86032          | 121.97        | 123.37        | 117.07        | <b>120.80</b> | 119.68        | 129.75        | 105.73       | <b>118.39</b> | 52.55        | 115.62        | 93.43        | <b>87.20</b>  | 140.76        | 112.36       | 115.21       | <b>122.78</b> |
| 2    | CoC 671           | 114.67        | 120.27        | 110.53        | <b>115.16</b> | 111.99        | 110.46        | 125.27       | <b>115.91</b> | 46.04        | 96.48         | 74.98        | <b>72.50</b>  | 118.89        | 87.71        | 82.43        | <b>96.34</b>  |
| 3    | CoSnk 05103       | 96.00         | 159.56        | 105.62        | <b>120.39</b> | 109.62        | 109.02        | 96.31        | <b>104.98</b> | 51.95        | 102.75        | 93.23        | <b>82.64</b>  | 100.00        | 97.08        | 105.42       | <b>100.83</b> |
|      | <b>Grand mean</b> | <b>120.52</b> | <b>125.56</b> | <b>103.76</b> | <b>116.61</b> | <b>101.47</b> | <b>113.98</b> | <b>97.56</b> | <b>104.34</b> | <b>69.55</b> | <b>113.53</b> | <b>89.35</b> | <b>90.81</b>  | <b>108.61</b> | <b>93.60</b> | <b>83.75</b> | <b>95.32</b>  |



*Varietal Improvement Programme- AICRP (Sugarcane)  
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Peninsular zone pooled data of two plant and ratoon*

| S No | Entries           | Navsari       |               |              |               | Padegaon     |               |              |               | Perumallipalle |               |              |               | Pravaranagar  |               |               |               |
|------|-------------------|---------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|----------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|
|      |                   | AVT IP        | AVT IIP       | AVT Ratoon   | Mean          | AVT IP       | AVT IIP       | AVT Ratoon   | Mean          | AVT IP         | AVT IIP       | AVT Ratoon   | Mean          | AVT IP        | AVT IIP       | AVT Ratoon    | Mean          |
| 1    | Co 14002          | 125.92        | 115.63        | 107.17       | <b>116.24</b> | 90.28        | 121.55        | 80.62        | <b>97.48</b>  | 65.29          | 112.95        | 46.76        | <b>75.00</b>  | 123.66        | 126.46        | 122.06        | <b>124.06</b> |
| 2    | Co 14004          | 124.78        | 121.93        | 109.70       | <b>118.80</b> | 92.10        | 149.68        | 112.24       | <b>118.01</b> | 91.73          | 129.72        | 82.13        | <b>101.19</b> | 120.46        | 123.39        | 121.70        | <b>121.85</b> |
| 3    | Co 14012          | 122.44        | 110.93        | 102.86       | <b>112.08</b> | 113.02       | 93.80         | 75.97        | <b>94.26</b>  | 67.37          | 136.87        | 64.01        | <b>89.42</b>  | 137.07        | 139.89        | 136.52        | <b>137.83</b> |
| 4    | Co 14016          | 120.81        | 128.37        | 114.92       | <b>121.37</b> | 117.19       | 142.00        | 121.78       | <b>126.99</b> | 114.93         | 149.11        | 75.42        | <b>113.15</b> | 141.34        | 145.03        | 141.70        | <b>142.69</b> |
| 5    | Co 14027          | 130.22        | 122.97        | 111.61       | <b>121.60</b> | 103.65       | 107.48        | 98.38        | <b>103.17</b> | 96.96          | 192.69        | 90.89        | <b>126.85</b> | 141.35        | 144.64        | 140.74        | <b>142.24</b> |
| 6    | Co 14030          | 108.15        | 108.33        | 99.20        | <b>105.23</b> | 76.65        | 116.88        | 93.23        | <b>95.59</b>  | 102.90         | 166.70        | 86.46        | <b>118.69</b> | 135.85        | 139.93        | 135.72        | <b>137.17</b> |
| 7    | Co 14032          | 110.90        | 94.28         | 87.67        | <b>97.62</b>  | 82.81        | 131.81        | 88.36        | <b>100.99</b> | 98.86          | 165.15        | 98.80        | <b>120.94</b> | 107.87        | 109.18        | 107.95        | <b>108.33</b> |
| 8    | CoN 14073         | 130.49        | 142.31        | 118.75       | <b>130.52</b> | 120.66       | 113.79        | 125.96       | <b>120.14</b> | 96.27          | 177.19        | 73.95        | <b>115.80</b> | 113.94        | 115.35        | 111.82        | <b>113.70</b> |
| 9    | CoSnk 14102       | 118.74        | 104.62        | 96.31        | <b>106.56</b> | 104.95       | 112.80        | 106.91       | <b>108.22</b> | 80.57          | 138.04        | 98.86        | <b>105.82</b> | 121.02        | 122.39        | 119.29        | <b>120.90</b> |
| 10   | CoSnk 14103       | 114.63        | 105.39        | 95.28        | <b>105.10</b> | 69.18        | 82.04         | 82.85        | <b>78.02</b>  | 97.55          | 172.28        | 123.65       | <b>131.16</b> | 128.48        | 130.96        | 129.34        | <b>129.59</b> |
| 11   | CoT 14367         | 119.82        | 84.03         | 79.65        | <b>94.50</b>  | 72.74        | 96.00         | 72.14        | <b>80.29</b>  | 124.27         | 151.51        | 116.59       | <b>130.79</b> | 134.53        | 137.53        | 136.09        | <b>136.05</b> |
| 12   | CoT1 14111        | 120.76        | 112.26        | 103.69       | <b>112.24</b> | 91.32        | 110.24        | 109.61       | <b>103.72</b> | 93.32          | 157.98        | 116.12       | <b>122.47</b> | 122.81        | 124.03        | 121.22        | <b>122.69</b> |
| 13   | CoVC 14062        | 109.92        | 102.62        | 95.02        | <b>102.52</b> | 81.08        | 113.29        | 89.46        | <b>94.61</b>  | 127.73         | 163.22        | 105.63       | <b>132.19</b> | 126.77        | 129.02        | 127.88        | <b>127.89</b> |
| 14   | MS 14081          | 124.81        | 84.93         | 78.94        | <b>96.23</b>  | 114.58       | 137.01        | 104.10       | <b>118.56</b> | 101.37         | 123.93        | 88.42        | <b>104.57</b> | 133.98        | 136.28        | 133.49        | <b>134.58</b> |
| 15   | MS 14082          | 130.32        | 130.95        | 106.43       | <b>122.57</b> | 126.48       | 158.64        | 123.17       | <b>136.10</b> | 125.90         | 184.22        | 129.19       | <b>146.44</b> | 132.75        | 133.03        | 136.24        | <b>134.01</b> |
|      | Standards         |               |               |              |               |              |               |              |               |                |               |              |               |               |               |               |               |
| 1    | Co 86032          | 97.81         | 97.95         | 83.89        | <b>93.22</b>  | 101.82       | 147.88        | 148.74       | <b>132.81</b> | 106.59         | 175.75        | 107.18       | <b>129.84</b> | 155.02        | 156.23        | 152.36        | <b>154.54</b> |
| 2    | CoC 671           | 100.91        | 96.29         | 82.44        | <b>93.21</b>  | 79.25        | 109.34        | 55.04        | <b>81.21</b>  | 66.33          | 132.90        | 77.42        | <b>92.22</b>  | 137.14        | 136.26        | 133.30        | <b>135.57</b> |
| 3    | CoSnk 05103       | 105.68        | 115.25        | 90.69        | <b>103.87</b> | 85.42        | 118.08        | 82.23        | <b>95.24</b>  | 107.62         | 175.15        | 98.96        | <b>127.24</b> | 129.44        | 125.69        | 123.77        | <b>126.30</b> |
|      | <b>Grand mean</b> | <b>117.62</b> | <b>109.95</b> | <b>98.01</b> | <b>108.53</b> | <b>95.73</b> | <b>120.13</b> | <b>98.38</b> | <b>104.75</b> | <b>98.09</b>   | <b>155.85</b> | <b>91.39</b> | <b>115.11</b> | <b>130.19</b> | <b>131.96</b> | <b>129.17</b> | <b>130.44</b> |

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| S No | Entries           | Pugalur       |               |            |               | Pune          |               |               |               | Rudrur        |               |              |               | Sameerwadi    |              |              |               |
|------|-------------------|---------------|---------------|------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|--------------|--------------|---------------|
|      |                   | AVT IP        | AVT IIP       | AVT Ratoon | Mean          | AVT IP        | AVT IIP       | AVT Ratoon    | Mean          | AVT IP        | AVT IIP       | AVT Ratoon   | Mean          | AVT IP        | AVT IIP      | AVT Ratoon   | Mean          |
| 1    | Co 14002          | 122.54        | 130.8         | -          | <b>126.67</b> | 146.35        | 151.29        | 129.94        | <b>142.53</b> | 123.56        | 109.63        | 91.76        | <b>108.32</b> | 117.01        | 49.98        | 165.56       | 110.85        |
| 2    | Co 14004          | 114.59        | 102.88        | -          | <b>108.74</b> | 122.86        | 125.40        | 107.68        | <b>118.65</b> | 97.72         | 100.96        | 91.34        | <b>96.67</b>  | 125.69        | 76.07        | 112.92       | 104.89        |
| 3    | Co 14012          | 138.98        | 121.68        | -          | <b>130.33</b> | 129.31        | 131.54        | 116.56        | <b>125.80</b> | 108.36        | 94.45         | 94.08        | <b>98.96</b>  | 96.30         | 80.72        | 132.04       | 103.02        |
| 4    | Co 14016          | 151.09        | 166.68        | -          | <b>158.89</b> | 114.78        | 152.08        | 144.08        | <b>136.98</b> | 107.92        | 125.11        | 124.29       | <b>119.11</b> | 145.95        | 90.43        | 145.12       | 127.17        |
| 5    | Co 14027          | 106.57        | 147.39        | -          | <b>126.98</b> | 79.10         | 109.94        | 76.81         | <b>88.62</b>  | 110.19        | 113.88        | 88.56        | <b>104.21</b> | 144.93        | 100.02       | 102.08       | 115.68        |
| 6    | Co 14030          | 74.47         | 130.41        | -          | <b>102.44</b> | 103.92        | 122.36        | 101.47        | <b>109.25</b> | 110.60        | 118.67        | 94.42        | <b>107.89</b> | 119.56        | 72.31        | 126.62       | 106.16        |
| 7    | Co 14032          | 69.68         | 103.4         | -          | <b>86.54</b>  | 107.68        | 119.84        | 77.92         | <b>101.81</b> | 95.93         | 105.62        | 97.70        | <b>99.75</b>  | 101.04        | 84.34        | 98.43        | 94.60         |
| 8    | CoN 14073         | 94.76         | 164.5         | -          | <b>129.63</b> | 154.29        | 157.32        | 157.34        | <b>156.32</b> | 113.36        | 136.69        | 113.73       | <b>121.26</b> | 154.05        | 91.31        | 128.26       | 124.54        |
| 9    | CoSnk 14102       | 79.87         | 139.81        | -          | <b>109.84</b> | 123.40        | 127.69        | 107.18        | <b>119.42</b> | 110.65        | 110.07        | 86.04        | <b>102.25</b> | 157.29        | 90.21        | 113.50       | 120.33        |
| 10   | CoSnk 14103       | 104.1         | 104.82        | -          | <b>104.46</b> | 70.25         | 74.55         | 78.49         | <b>74.43</b>  | 92.71         | 105.10        | 91.46        | <b>96.42</b>  | 139.47        | 99.08        | 94.51        | 111.02        |
| 11   | CoT 14367         | 65.82         | 120.77        | -          | <b>93.30</b>  | 86.40         | 95.77         | 72.33         | <b>84.83</b>  | 104.61        | 105.45        | 92.74        | <b>100.93</b> | 109.72        | 95.44        | 114.33       | 106.50        |
| 12   | CoT 14111         | 128.79        | 137.36        | -          | <b>133.08</b> | 142.98        | 148.53        | 148.16        | <b>146.56</b> | 158.47        | 134.22        | 117.96       | <b>136.88</b> | 145.14        | 67.77        | 112.61       | 108.51        |
| 13   | CoYC 14062        | 58.57         | 144.3         | -          | <b>101.44</b> | 104.09        | 116.26        | 108.79        | <b>109.71</b> | 140.11        | 131.97        | 98.24        | <b>123.44</b> | 142.94        | 85.03        | 149.93       | 125.97        |
| 14   | MS 14081          | 103.74        | 96.84         | -          | <b>100.29</b> | 130.37        | 136.05        | 110.65        | <b>125.69</b> | 86.54         | 106.00        | 88.30        | <b>93.61</b>  | 122.34        | 83.70        | 101.41       | 102.48        |
| 15   | MS 14082          | 99.62         | 153.56        | -          | <b>126.59</b> | 156.40        | 146.05        | 140.28        | <b>147.58</b> | 121.33        | 149.82        | 131.73       | <b>134.29</b> | 135.07        | 96.49        | 100.87       | 110.81        |
|      | Standards         |               |               |            |               |               |               |               |               |               |               |              |               |               |              |              |               |
| 1    | Co 86032          | 129.18        | 144.3         | -          | <b>136.74</b> | 122.89        | 126.44        | 113.43        | <b>120.92</b> | 96.95         | 96.31         | 98.11        | <b>97.12</b>  | 145.25        | 93.76        | 108.56       | 115.86        |
| 2    | CoC 671           | 125.24        | 152.02        | -          | <b>138.63</b> | 110.49        | 114.65        | 74.22         | <b>99.79</b>  | 92.82         | 92.82         | 89.49        | <b>91.71</b>  | 119.33        | 90.85        | 105.14       | 105.11        |
| 3    | CoSnk 05103       | 107.11        | 137.36        | -          | <b>122.24</b> | 103.08        | 109.78        | 107.08        | <b>106.65</b> | 139.34        | 112.52        | 100.20       | <b>117.35</b> | 136.11        | 71.42        | 79.48        | 95.67         |
|      | <b>Grand mean</b> | <b>102.06</b> | <b>133.27</b> | <b>-</b>   | <b>117.67</b> | <b>117.15</b> | <b>125.86</b> | <b>109.58</b> | <b>117.53</b> | <b>111.73</b> | <b>113.85</b> | <b>99.45</b> | <b>108.34</b> | <b>130.96</b> | <b>85.35</b> | <b>97.73</b> | <b>104.36</b> |

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| S No | Entries           | Sankeshwar    |               |              |               | Thiruvalla   |              |              |               | Overall mean  |               |              |               | Weighted Average | Rank |
|------|-------------------|---------------|---------------|--------------|---------------|--------------|--------------|--------------|---------------|---------------|---------------|--------------|---------------|------------------|------|
|      |                   | AVT IP        | AVT IIP       | AVT Ratoon   | Mean          | AVT IP       | AVT IIP      | AVT Ratoon   | Mean          | AVT IP        | AVT IIP       | AVT Ratoon   | Mean          |                  |      |
| 1    | Co 14002          | 128.11        | 166.35        | 89.30        | <b>127.92</b> | 88.33        | 97.80        | 79.74        | <b>88.62</b>  | 113.33        | 118.52        | 93.02        | <b>108.29</b> |                  |      |
| 2    | Co 14004          | 105.83        | 145.00        | 101.75       | <b>117.53</b> | 84.47        | 99.60        | 85.24        | <b>89.77</b>  | 106.50        | 112.71        | 88.70        | <b>102.64</b> |                  |      |
| 3    | Co 14012          | 93.86         | 119.43        | 98.30        | <b>103.86</b> | 92.20        | 98.73        | 88.66        | <b>93.20</b>  | 102.61        | 113.51        | 88.70        | <b>101.61</b> |                  |      |
| 4    | Co 14016          | 94.48         | 84.45         | 90.15        | <b>89.69</b>  | 99.40        | 98.15        | 91.84        | <b>96.46</b>  | 114.63        | 124.45        | 101.75       | <b>113.61</b> | 4                |      |
| 5    | Co 14027          | 115.32        | 104.45        | 87.30        | <b>102.36</b> | 98.87        | 83.97        | 68.63        | <b>83.82</b>  | 106.99        | 120.29        | 89.67        | <b>105.65</b> |                  |      |
| 6    | Co 14030          | 75.26         | 79.60         | 73.90        | <b>76.25</b>  | 90.91        | 100.29       | 81.83        | <b>91.01</b>  | 99.96         | 112.05        | 89.47        | <b>100.49</b> |                  |      |
| 7    | Co 14032          | 113.63        | 130.80        | 112.55       | <b>118.99</b> | 82.27        | 85.65        | 81.65        | <b>83.19</b>  | 100.21        | 108.66        | 86.08        | <b>98.31</b>  |                  |      |
| 8    | CoN 14073         | 134.90        | 129.80        | 121.15       | <b>128.62</b> | 115.83       | 107.75       | 97.51        | <b>107.03</b> | 123.62        | 131.82        | 103.01       | <b>119.48</b> | 2                |      |
| 9    | CoSnk 14102       | 130.95        | 117.40        | 94.65        | <b>114.33</b> | 89.54        | 90.10        | 74.30        | <b>84.65</b>  | 108.53        | 114.33        | 91.36        | <b>104.74</b> |                  |      |
| 10   | CoSnk 14103       | 76.35         | 126.05        | 90.15        | <b>97.52</b>  | 96.51        | 91.61        | 85.24        | <b>91.12</b>  | 97.05         | 107.77        | 85.36        | <b>96.73</b>  |                  |      |
| 11   | CoT 14367         | 89.14         | 146.05        | 100.05       | <b>111.75</b> | 101.06       | 112.15       | 94.16        | <b>102.46</b> | 94.80         | 108.85        | 85.80        | <b>96.48</b>  |                  |      |
| 12   | CoT1 14111        | 117.50        | 131.50        | 96.25        | <b>115.08</b> | 88.86        | 93.75        | 87.96        | <b>90.19</b>  | 117.30        | 121.15        | 102.08       | <b>113.51</b> |                  |      |
| 13   | CoVC 14062        | 121.74        | 122.25        | 96.35        | <b>113.45</b> | 86.97        | 98.61        | 90.80        | <b>92.13</b>  | 104.45        | 116.86        | 93.54        | <b>104.95</b> |                  |      |
| 14   | MS 14081          | 96.55         | 161.55        | 112.60       | <b>123.57</b> | 93.56        | 80.50        | 68.86        | <b>80.97</b>  | 103.66        | 113.05        | 86.67        | <b>101.13</b> |                  |      |
| 15   | MS 14082          | 105.34        | 127.95        | 95.95        | <b>109.75</b> | 102.35       | 106.37       | 97.80        | <b>102.17</b> | 122.73        | 138.04        | 111.75       | <b>124.17</b> | 1                |      |
|      | Standards         |               |               |              |               |              |              |              |               |               |               |              |               |                  |      |
| 1    | Co 86032          | 104.97        | 132.55        | 92.40        | <b>109.97</b> | 105.99       | 101.33       | 92.48        | <b>99.93</b>  | 114.39        | 125.26        | 102.04       | <b>113.90</b> | 3                |      |
| 2    | CoC 671           | 91.24         | 139.55        | 84.95        | <b>105.25</b> | 95.08        | 98.15        | 79.75        | <b>90.99</b>  | 100.67        | 112.70        | 83.93        | <b>99.10</b>  |                  |      |
| 3    | CoSnk 05103       | 103.92        | 153.35        | 88.40        | <b>115.22</b> | 87.88        | 90.97        | 84.20        | <b>87.68</b>  | 104.51        | 119.86        | 89.68        | <b>104.68</b> |                  |      |
|      | <b>Grand mean</b> | <b>105.50</b> | <b>128.78</b> | <b>95.90</b> | <b>110.06</b> | <b>94.45</b> | <b>96.42</b> | <b>85.04</b> | <b>91.97</b>  | <b>107.40</b> | <b>117.65</b> | <b>91.36</b> | <b>105.47</b> |                  |      |

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**Table 2.3.3 CCS % at harvest**

| S No | Entries           | Coimbatore   |              |              |              | Basmathnagar |              |              |              | Kolhapur     |              |              |              | Mandya       |              |              |              |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |
| 1    | Co 14002          | 13.51        | 13.62        | 14.32        | <b>13.82</b> | 12.64        | 12.23        | 14.10        | <b>12.99</b> | 14.43        | 13.04        | 12.01        | <b>13.16</b> | 12.65        | 13.68        | 13.33        | <b>13.22</b> |
| 2    | Co 14004          | 14.39        | 14.10        | 14.50        | <b>14.33</b> | 12.49        | 12.33        | 11.80        | <b>12.21</b> | 11.56        | 12.23        | 12.66        | <b>12.15</b> | 14.54        | 14.71        | 14.97        | <b>14.74</b> |
| 3    | Co 14012          | 13.63        | 13.48        | 14.93        | <b>14.01</b> | 11.28        | 12.93        | 10.95        | <b>11.72</b> | 11.93        | 13.61        | 13.33        | <b>12.96</b> | 14.19        | 14.37        | 14.59        | <b>14.38</b> |
| 4    | Co 14016          | 13.67        | 13.27        | 14.38        | <b>13.77</b> | 11.64        | 12.15        | 10.88        | <b>11.56</b> | 11.38        | 13.33        | 13.01        | <b>12.57</b> | 13.72        | 14.41        | 13.87        | <b>14.00</b> |
| 5    | Co 14027          | 14.59        | 13.49        | 14.90        | <b>14.33</b> | 11.56        | 12.59        | 14.94        | <b>13.03</b> | 12.04        | 13.28        | 13.40        | <b>12.91</b> | 13.95        | 14.24        | 14.72        | <b>14.30</b> |
| 6    | Co 14030          | 13.61        | 13.86        | 13.50        | <b>13.66</b> | 12.26        | 13.43        | 14.82        | <b>13.50</b> | 9.89         | 12.72        | 11.34        | <b>11.32</b> | 14.59        | 14.66        | 13.98        | <b>14.41</b> |
| 7    | Co 14032          | 15.06        | 14.72        | 14.39        | <b>14.72</b> | 11.62        | 11.85        | 15.31        | <b>12.93</b> | 10.76        | 13.87        | 14.16        | <b>12.93</b> | 14.20        | 14.84        | 14.17        | <b>14.40</b> |
| 8    | CoN 14073         | 12.25        | 11.93        | 12.71        | <b>12.30</b> | 11.50        | 13.34        | 11.67        | <b>12.17</b> | 14.03        | 10.76        | 11.08        | <b>11.96</b> | 12.29        | 13.63        | 12.89        | <b>12.94</b> |
| 9    | CoShk 14102       | 12.60        | 12.44        | 13.58        | <b>12.87</b> | 12.97        | 12.59        | 15.19        | <b>13.58</b> | 10.24        | 12.88        | 11.90        | <b>11.67</b> | 13.13        | 13.62        | 13.05        | <b>13.27</b> |
| 10   | CoShk 14103       | 13.62        | 13.20        | 12.07        | <b>12.96</b> | 11.89        | 13.04        | 11.07        | <b>12.00</b> | 11.46        | 11.30        | 12.24        | <b>11.67</b> | 13.14        | 13.45        | 14.21        | <b>13.60</b> |
| 11   | CoT 14367         | 11.89        | 12.42        | 12.92        | <b>12.41</b> | 12.03        | 11.47        | 15.58        | <b>13.03</b> | 10.52        | 11.95        | 11.45        | <b>11.31</b> | 13.03        | 12.74        | 13.10        | <b>12.96</b> |
| 12   | CoT1 14111        | 12.61        | 12.60        | 13.70        | <b>12.97</b> | 11.61        | 12.56        | 14.72        | <b>12.96</b> | 14.39        | 13.05        | 11.90        | <b>13.11</b> | 13.10        | 13.19        | 12.66        | <b>12.98</b> |
| 13   | CoVC 14062        | 14.65        | 13.84        | 12.62        | <b>13.70</b> | 12.42        | 12.78        | 12.42        | <b>12.54</b> | 11.17        | 12.93        | 12.33        | <b>12.14</b> | 14.73        | 14.24        | 14.61        | <b>14.53</b> |
| 14   | MS 14081          | 13.93        | 13.28        | 13.33        | <b>13.51</b> | 12.61        | 12.03        | 13.38        | <b>12.67</b> | 11.10        | 13.51        | 13.38        | <b>12.66</b> | 14.77        | 14.91        | 14.95        | <b>14.88</b> |
| 15   | MS 14082          | 13.24        | 12.54        | 14.74        | <b>13.51</b> | 12.70        | 12.83        | 14.19        | <b>13.24</b> | 10.98        | 12.77        | 12.86        | <b>12.20</b> | 12.80        | 13.87        | 14.70        | <b>13.79</b> |
|      | Standards         |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 1    | Co 86032          | 13.48        | 13.14        | 14.03        | <b>13.55</b> | 13.45        | 12.65        | 14.83        | <b>13.64</b> | 11.85        | 13.82        | 12.50        | <b>12.72</b> | 13.41        | 13.80        | 13.63        | <b>13.61</b> |
| 2    | CoC 671           | 15.10        | 14.81        | 15.71        | <b>15.21</b> | 12.84        | 13.10        | 14.41        | <b>13.45</b> | 11.75        | 13.94        | 12.75        | <b>12.81</b> | 14.52        | 15.50        | 15.08        | <b>15.03</b> |
| 3    | CoShk 05103       | 12.56        | 12.18        | 13.00        | <b>12.58</b> | 12.98        | 12.94        | 11.82        | <b>12.58</b> | 11.81        | 13.23        | 11.36        | <b>12.13</b> | 13.81        | 14.36        | 13.09        | <b>13.75</b> |
|      | <b>Grand mean</b> | <b>13.58</b> | <b>13.27</b> | <b>13.85</b> | <b>13.57</b> | <b>12.25</b> | <b>12.60</b> | <b>13.45</b> | <b>12.77</b> | <b>11.74</b> | <b>12.90</b> | <b>12.43</b> | <b>12.36</b> | <b>13.70</b> | <b>14.12</b> | <b>13.98</b> | <b>13.93</b> |

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| S No | Entries           | Navsari      |              |              |              | Padegaon     |              |              |              | Perumallapalle |              |              |              | Pravaranagar |              |              |              |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP         | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |
| 1    | Co 14002          | 14.24        | 13.48        | 13.97        | <b>13.90</b> | 15.23        | 15.39        | 15.42        | <b>15.35</b> | 14.26          | 12.39        | 13.78        | <b>13.48</b> | 13.79        | 13.85        | 13.91        | <b>13.85</b> |
| 2    | Co 14004          | 14.15        | 15.26        | 14.00        | <b>14.47</b> | 15.43        | 16.48        | 16.02        | <b>15.98</b> | 13.86          | 12.66        | 13.53        | <b>13.35</b> | 15.70        | 15.40        | 15.28        | <b>15.46</b> |
| 3    | Co 14012          | 14.71        | 15.20        | 14.67        | <b>14.86</b> | 15.35        | 16.34        | 16.63        | <b>16.11</b> | 14.17          | 12.82        | 12.90        | <b>13.30</b> | 15.96        | 16.00        | 15.90        | <b>15.95</b> |
| 4    | Co 14016          | 13.76        | 14.43        | 13.46        | <b>13.88</b> | 14.50        | 15.38        | 15.01        | <b>14.96</b> | 13.74          | 11.59        | 12.92        | <b>12.75</b> | 14.04        | 14.29        | 14.37        | <b>14.23</b> |
| 5    | Co 14027          | 14.20        | 15.22        | 13.49        | <b>14.30</b> | 14.28        | 14.82        | 14.32        | <b>14.47</b> | 13.60          | 12.82        | 13.32        | <b>13.25</b> | 14.47        | 14.71        | 14.73        | <b>14.64</b> |
| 6    | Co 14030          | 14.80        | 15.14        | 14.05        | <b>14.66</b> | 15.11        | 14.42        | 15.27        | <b>14.93</b> | 12.08          | 11.71        | 12.60        | <b>12.13</b> | 15.54        | 15.35        | 15.26        | <b>15.38</b> |
| 7    | Co 14032          | 14.01        | 14.74        | 13.92        | <b>14.22</b> | 15.84        | 15.74        | 14.48        | <b>15.35</b> | 13.65          | 12.08        | 13.64        | <b>13.12</b> | 16.08        | 16.06        | 15.98        | <b>16.04</b> |
| 8    | CoN 14073         | 13.32        | 13.71        | 12.81        | <b>13.28</b> | 13.91        | 14.71        | 12.79        | <b>13.80</b> | 12.55          | 12.22        | 13.41        | <b>12.73</b> | 14.22        | 14.43        | 14.55        | <b>14.40</b> |
| 9    | CoSnk 14102       | 12.61        | 14.23        | 12.74        | <b>13.19</b> | 13.71        | 14.36        | 14.05        | <b>14.04</b> | 12.58          | 11.86        | 12.69        | <b>12.38</b> | 13.15        | 13.56        | 13.74        | <b>13.48</b> |
| 10   | CoSnk 14103       | 12.46        | 13.55        | 12.73        | <b>12.91</b> | 13.20        | 14.11        | 13.67        | <b>13.66</b> | 14.00          | 12.12        | 12.96        | <b>13.03</b> | 14.41        | 14.57        | 14.63        | <b>14.54</b> |
| 11   | CoT 14367         | 14.02        | 13.39        | 13.05        | <b>13.49</b> | 14.36        | 14.81        | 13.86        | <b>14.34</b> | 13.61          | 12.45        | 12.56        | <b>12.87</b> | 14.03        | 14.03        | 13.94        | <b>14.00</b> |
| 12   | CoT 14111         | 13.75        | 13.21        | 13.27        | <b>13.41</b> | 14.63        | 15.18        | 14.48        | <b>14.76</b> | 13.46          | 12.39        | 12.87        | <b>12.91</b> | 14.54        | 14.39        | 14.36        | <b>14.43</b> |
| 13   | CoYC 14062        | 14.35        | 14.49        | 13.57        | <b>14.14</b> | 14.48        | 15.23        | 14.91        | <b>14.87</b> | 13.58          | 12.55        | 13.57        | <b>13.23</b> | 15.08        | 15.02        | 15.12        | <b>15.07</b> |
| 14   | MS 14081          | 14.07        | 13.63        | 13.13        | <b>13.61</b> | 14.11        | 15.39        | 14.49        | <b>14.66</b> | 12.64          | 12.27        | 13.14        | <b>12.68</b> | 14.58        | 15.09        | 15.17        | <b>14.95</b> |
| 15   | MS 14082          | 12.52        | 14.09        | 13.68        | <b>13.43</b> | 14.51        | 15.43        | 13.83        | <b>14.59</b> | 14.29          | 12.52        | 13.61        | <b>13.47</b> | 14.48        | 14.30        | 14.16        | <b>14.31</b> |
|      | Standards         |              |              |              |              |              |              |              |              |                |              |              |              |              |              |              |              |
| 1    | Co 86032          | 13.54        | 14.51        | 13.77        | <b>13.94</b> | 14.41        | 15.49        | 14.08        | <b>14.66</b> | 12.83          | 12.67        | 13.26        | <b>12.92</b> | 14.65        | 14.41        | 14.38        | <b>14.48</b> |
| 2    | CoC 671           | 15.11        | 15.00        | 13.91        | <b>14.67</b> | 15.40        | 16.03        | 15.79        | <b>15.74</b> | 14.86          | 13.41        | 13.91        | <b>14.06</b> | 15.86        | 15.82        | 15.72        | <b>15.80</b> |
| 3    | CoSnk 05103       | 13.05        | 13.81        | 13.35        | <b>13.40</b> | 14.33        | 14.47        | 14.05        | <b>14.28</b> | 12.21          | 11.89        | 12.01        | <b>12.04</b> | 14.00        | 13.94        | 13.92        | <b>13.95</b> |
|      | <b>Grand mean</b> | <b>13.82</b> | <b>14.28</b> | <b>13.53</b> | <b>13.88</b> | <b>14.60</b> | <b>15.21</b> | <b>14.62</b> | <b>14.81</b> | <b>13.44</b>   | <b>12.36</b> | <b>13.15</b> | <b>12.98</b> | <b>14.70</b> | <b>14.73</b> | <b>14.73</b> | <b>14.72</b> |

*Varietal Improvement Programme- AICRP (Sugarcane)  
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| S No | Entries           | Pugalur      |              |            |              | Pune         |              |              |              | Rudrur       |              |              |              | Sameerwadi   |              |              |              |
|------|-------------------|--------------|--------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |
| 1    | Co 14002          | 11.63        | 10.28        | -          | <b>10.96</b> | 14.36        | 15.33        | 15.46        | <b>15.05</b> | 13.73        | 13.56        | 13.41        | <b>13.57</b> | 13.51        | 13.45        | 12.04        | <b>13.00</b> |
| 2    | Co 14004          | 12.53        | 10.35        | -          | <b>11.44</b> | 14.88        | 16.33        | 15.44        | <b>15.55</b> | 14.31        | 13.40        | 13.82        | <b>13.84</b> | 13.49        | 13.44        | 13.88        | <b>13.60</b> |
| 3    | Co 14012          | 11.04        | 9.77         | -          | <b>10.41</b> | 14.90        | 16.01        | 16.09        | <b>15.67</b> | 12.31        | 13.95        | 14.26        | <b>13.51</b> | 12.40        | 12.94        | 12.67        | <b>12.67</b> |
| 4    | Co 14016          | 11.50        | 10.03        | -          | <b>10.77</b> | 14.18        | 15.13        | 14.75        | <b>14.69</b> | 13.61        | 12.55        | 12.29        | <b>12.82</b> | 12.33        | 12.96        | 13.27        | <b>12.85</b> |
| 5    | Co 14027          | 11.59        | 11.16        | -          | <b>11.38</b> | 13.85        | 14.34        | 14.00        | <b>14.06</b> | 12.77        | 13.95        | 14.43        | <b>13.71</b> | 11.63        | 13.97        | 12.63        | <b>12.74</b> |
| 6    | Co 14030          | 11.17        | 9.97         | -          | <b>10.57</b> | 15.45        | 15.57        | 15.09        | <b>15.37</b> | 12.37        | 13.40        | 12.47        | <b>12.75</b> | 12.47        | 12.76        | 13.86        | <b>13.03</b> |
| 7    | Co 14032          | 13.15        | 11.01        | -          | <b>12.08</b> | 15.17        | 15.31        | 14.18        | <b>14.89</b> | 13.21        | 13.37        | 13.41        | <b>13.33</b> | 13.72        | 11.62        | 13.26        | <b>12.87</b> |
| 8    | CoN 14073         | 10.81        | 9.47         | -          | <b>10.14</b> | 13.10        | 13.66        | 13.92        | <b>13.56</b> | 11.37        | 11.93        | 13.56        | <b>12.29</b> | 12.88        | 11.51        | 13.75        | <b>12.71</b> |
| 9    | CoSnk 14102       | 10.63        | 10.28        | -          | <b>10.46</b> | 13.16        | 14.31        | 13.61        | <b>13.69</b> | 12.12        | 12.56        | 13.75        | <b>12.81</b> | 12.97        | 12.31        | 12.86        | <b>12.71</b> |
| 10   | CoSnk 14103       | 12.56        | 10.11        | -          | <b>11.34</b> | 10.01        | 13.18        | 13.82        | <b>12.34</b> | 10.85        | 13.86        | 13.81        | <b>12.84</b> | 12.85        | 11.94        | 12.01        | <b>12.27</b> |
| 11   | CoT 14367         | 10.61        | 10.04        | -          | <b>10.33</b> | 12.95        | 13.26        | 13.83        | <b>13.35</b> | 12.81        | 12.01        | 14.26        | <b>13.03</b> | 10.89        | 11.87        | 10.96        | <b>11.24</b> |
| 12   | CoT 14111         | 10.46        | 10.25        | -          | <b>10.36</b> | 13.84        | 13.16        | 13.67        | <b>13.56</b> | 13.30        | 11.72        | 13.50        | <b>12.84</b> | 13.17        | 11.69        | 12.73        | <b>12.53</b> |
| 13   | CoYC 14062        | 10.92        | 10.06        | -          | <b>10.49</b> | 12.66        | 15.22        | 15.28        | <b>14.39</b> | 9.22         | 12.91        | 14.29        | <b>12.14</b> | 13.43        | 12.95        | 13.41        | <b>13.26</b> |
| 14   | MS 14081          | 10.91        | 9.58         | -          | <b>10.25</b> | 14.24        | 15.04        | 14.88        | <b>14.72</b> | 11.69        | 13.55        | 14.28        | <b>13.18</b> | 12.38        | 12.95        | 12.32        | <b>12.55</b> |
| 15   | MS 14082          | 11.60        | 10.15        | -          | <b>10.88</b> | 12.96        | 15.02        | 14.97        | <b>14.32</b> | 14.13        | 13.88        | 14.12        | <b>14.04</b> | 12.82        | 12.76        | 12.13        | <b>12.57</b> |
|      | Standards         |              |              |            |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 1    | Co 86032          | 11.89        | 11.25        | -          | <b>11.57</b> | 13.95        | 14.01        | 14.57        | <b>14.18</b> | 13.22        | 14.51        | 13.90        | <b>13.88</b> | 11.84        | 13.36        | 13.58        | <b>12.93</b> |
| 2    | CoC 671           | 11.91        | 10.97        | -          | <b>11.44</b> | 15.00        | 16.25        | 16.10        | <b>15.78</b> | 14.12        | 14.38        | 14.54        | <b>14.35</b> | 13.80        | 13.88        | 12.99        | <b>13.56</b> |
| 3    | CoSnk 05103       | 12.38        | 10.08        | -          | <b>11.23</b> | 13.54        | 13.59        | 12.68        | <b>13.27</b> | 11.23        | 12.51        | 13.46        | <b>12.40</b> | 13.58        | 12.88        | 13.02        | <b>13.16</b> |
|      | <b>Grand mean</b> | <b>11.51</b> | <b>10.27</b> | <b>-</b>   | <b>10.89</b> | <b>13.79</b> | <b>14.71</b> | <b>14.57</b> | <b>14.36</b> | <b>12.58</b> | <b>13.22</b> | <b>13.75</b> | <b>13.19</b> | <b>12.79</b> | <b>12.74</b> | <b>13.20</b> | <b>12.91</b> |

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| S No | Entries           | Sankeshwar   |              |              |              | Thiruvalla   |              |              |              | Overall mean |              |              |              | Weighted Average | Rank |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |                  |      |
| 1    | Co 14002          | 9.65         | 14.90        | 16.52        | <b>13.69</b> | 13.65        | 13.33        | 13.04        | <b>13.34</b> | 13.38        | 13.47        | 13.00        | <b>13.28</b> |                  |      |
| 2    | Co 14004          | 12.51        | 15.12        | 16.69        | <b>14.77</b> | 12.02        | 11.25        | 10.77        | <b>11.35</b> | 13.70        | 13.79        | 13.15        | <b>13.55</b> | 3                |      |
| 3    | Co 14012          | 16.73        | 15.52        | 17.07        | <b>16.44</b> | 13.64        | 13.82        | 13.41        | <b>13.62</b> | 13.73        | 14.05        | 13.36        | <b>13.72</b> | 2                |      |
| 4    | Co 14016          | 14.62        | 14.13        | 15.59        | <b>14.78</b> | 12.10        | 12.11        | 11.52        | <b>11.91</b> | 13.20        | 13.27        | 12.55        | <b>13.01</b> |                  |      |
| 5    | Co 14027          | 15.23        | 14.55        | 15.32        | <b>15.03</b> | 11.54        | 11.05        | 10.72        | <b>11.10</b> | 13.24        | 13.58        | 12.78        | <b>13.20</b> |                  |      |
| 6    | Co 14030          | 13.02        | 15.17        | 16.06        | <b>14.75</b> | 12.40        | 12.44        | 11.95        | <b>12.26</b> | 13.20        | 13.61        | 13.08        | <b>13.30</b> |                  |      |
| 7    | Co 14032          | 14.09        | 15.62        | 16.96        | <b>15.56</b> | 12.45        | 12.09        | 11.79        | <b>12.11</b> | 13.79        | 13.78        | 13.04        | <b>13.54</b> | 4                |      |
| 8    | CoN 14073         | 10.59        | 12.86        | 14.31        | <b>12.59</b> | 10.92        | 11.26        | 10.77        | <b>10.98</b> | 12.41        | 12.53        | 12.07        | <b>12.34</b> |                  |      |
| 9    | CoSnk 14102       | 12.46        | 12.50        | 14.58        | <b>13.18</b> | 12.43        | 11.69        | 11.11        | <b>11.74</b> | 12.48        | 12.80        | 12.37        | <b>12.55</b> |                  |      |
| 10   | CoSnk 14103       | 12.39        | 12.89        | 15.13        | <b>13.47</b> | 11.23        | 11.26        | 10.92        | <b>11.14</b> | 12.43        | 12.76        | 12.03        | <b>12.41</b> |                  |      |
| 11   | CoT 14367         | 13.92        | 11.19        | 15.33        | <b>13.48</b> | 12.15        | 12.13        | 11.56        | <b>11.95</b> | 12.63        | 12.41        | 12.35        | <b>12.46</b> |                  |      |
| 12   | CoT 14111         | 13.94        | 12.61        | 15.17        | <b>13.91</b> | 12.39        | 12.06        | 11.65        | <b>12.03</b> | 13.23        | 12.72        | 12.51        | <b>12.82</b> |                  |      |
| 13   | CoVC 14062        | 15.14        | 14.57        | 16.52        | <b>15.41</b> | 13.34        | 13.43        | 12.88        | <b>13.22</b> | 13.23        | 13.59        | 13.04        | <b>13.29</b> |                  |      |
| 14   | MS 14081          | 13.07        | 15.21        | 16.81        | <b>15.03</b> | 12.99        | 12.30        | 12.02        | <b>12.44</b> | 13.08        | 13.48        | 12.91        | <b>13.16</b> |                  |      |
| 15   | MS 14082          | 14.49        | 14.30        | 15.82        | <b>14.87</b> | 12.93        | 13.08        | 12.51        | <b>12.84</b> | 13.18        | 13.40        | 12.93        | <b>13.17</b> |                  |      |
|      | Standards         |              |              |              |              |              |              |              |              |              |              |              |              |                  |      |
| 1    | Co 86032          | 14.02        | 14.22        | 15.47        | <b>14.57</b> | 13.49        | 12.80        | 12.67        | <b>12.99</b> | 13.29        | 13.62        | 12.92        | <b>13.28</b> |                  |      |
| 2    | CoC 671           | 16.89        | 15.77        | 17.13        | <b>16.60</b> | 14.20        | 13.77        | 13.56        | <b>13.84</b> | 14.38        | 14.47        | 13.59        | <b>14.15</b> | 1                |      |
| 3    | CoSnk 05103       | 14.42        | 12.86        | 15.13        | <b>14.14</b> | 12.98        | 12.06        | 11.94        | <b>12.33</b> | 13.06        | 12.91        | 12.14        | <b>12.70</b> |                  |      |
|      | <b>Grand mean</b> | <b>13.73</b> | <b>14.11</b> | <b>15.87</b> | <b>14.57</b> | <b>12.60</b> | <b>12.33</b> | <b>11.93</b> | <b>12.29</b> | <b>13.20</b> | <b>13.35</b> | <b>11.90</b> | <b>12.82</b> |                  |      |

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**Table 2.3.4 Sucrose% at harvest**

| S No | Entries           | Coimbatore   |              |              |              | Basmathnagar |              |              |              | Kolhapur     |              |              |              | Mandya       |              |              |              |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |
| 1    | Co 14002          | 19.10        | 19.34        | 20.88        | 19.77        | 18.17        | 17.80        | 19.48        | 18.48        | 20.57        | 19.09        | 18.04        | 19.23        | 17.70        | 19.22        | 18.70        | 18.54        |
| 2    | Co 14004          | 20.24        | 19.92        | 21.13        | 20.43        | 17.78        | 17.72        | 16.85        | 17.45        | 16.24        | 18.55        | 19.07        | 17.95        | 20.31        | 20.65        | 20.99        | 20.65        |
| 3    | Co 14012          | 19.35        | 19.19        | 21.80        | 20.11        | 16.45        | 18.34        | 15.96        | 16.92        | 16.69        | 19.96        | 19.71        | 18.79        | 19.80        | 20.15        | 20.51        | 20.15        |
| 4    | Co 14016          | 19.37        | 18.85        | 20.88        | 19.70        | 16.79        | 17.67        | 15.71        | 16.72        | 15.87        | 19.53        | 19.15        | 18.18        | 19.26        | 20.25        | 19.47        | 19.66        |
| 5    | Co 14027          | 20.61        | 19.30        | 21.70        | 20.54        | 16.84        | 18.38        | 20.56        | 18.59        | 16.85        | 19.58        | 19.72        | 18.72        | 19.50        | 19.93        | 20.66        | 20.03        |
| 6    | Co 14030          | 19.26        | 19.73        | 19.69        | 19.56        | 17.57        | 19.25        | 20.40        | 19.07        | 13.80        | 18.77        | 17.04        | 16.54        | 20.43        | 20.55        | 19.63        | 20.20        |
| 7    | Co 14032          | 21.22        | 20.90        | 21.01        | 21.04        | 17.01        | 16.83        | 21.01        | 18.28        | 15.03        | 20.20        | 20.75        | 18.66        | 19.84        | 20.78        | 19.89        | 20.17        |
| 8    | CoN 14073         | 17.65        | 17.26        | 18.73        | 17.88        | 16.39        | 18.93        | 16.55        | 17.29        | 19.99        | 16.28        | 16.73        | 17.67        | 17.18        | 19.08        | 18.13        | 18.13        |
| 9    | CoSnk 14102       | 17.94        | 17.73        | 19.75        | 18.47        | 18.47        | 18.08        | 20.89        | 19.15        | 14.33        | 18.87        | 17.79        | 17.00        | 18.38        | 19.09        | 18.33        | 18.60        |
| 10   | CoSnk 14103       | 19.25        | 18.75        | 17.85        | 18.62        | 17.25        | 18.71        | 16.12        | 17.36        | 15.95        | 17.10        | 18.11        | 17.05        | 18.37        | 18.87        | 19.91        | 19.05        |
| 11   | CoT 14367         | 17.07        | 17.75        | 18.97        | 17.93        | 17.21        | 16.41        | 21.49        | 18.37        | 14.65        | 17.80        | 17.13        | 16.53        | 18.23        | 17.89        | 18.38        | 18.17        |
| 12   | CoTI 14111        | 18.05        | 18.07        | 19.96        | 18.69        | 17.01        | 18.13        | 20.19        | 18.44        | 20.44        | 18.90        | 17.79        | 19.04        | 18.44        | 18.56        | 17.77        | 18.26        |
| 13   | CoVC 14062        | 20.78        | 19.84        | 18.66        | 19.76        | 17.77        | 18.29        | 17.77        | 17.94        | 15.57        | 19.01        | 18.71        | 17.76        | 20.61        | 19.98        | 20.46        | 20.35        |
| 14   | MS 14081          | 19.67        | 18.92        | 19.47        | 19.35        | 17.98        | 17.25        | 19.13        | 18.12        | 15.55        | 19.75        | 19.60        | 18.30        | 20.61        | 20.95        | 20.90        | 20.82        |
| 15   | MS 14082          | 18.73        | 18.06        | 21.35        | 19.38        | 18.18        | 18.45        | 19.64        | 18.76        | 15.33        | 18.97        | 18.99        | 17.76        | 17.86        | 19.43        | 20.61        | 19.30        |
|      | Standards         |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 1    | Co 86032          | 19.10        | 18.70        | 20.49        | 19.43        | 19.03        | 18.78        | 20.45        | 19.42        | 16.62        | 20.07        | 18.42        | 18.37        | 18.68        | 19.33        | 19.14        | 19.05        |
| 2    | CoC 671           | 21.14        | 20.92        | 22.66        | 21.57        | 18.30        | 18.51        | 19.85        | 18.89        | 16.47        | 20.46        | 19.16        | 18.70        | 20.37        | 21.73        | 21.13        | 21.08        |
| 3    | CoSnk 05103       | 17.89        | 17.46        | 19.00        | 18.12        | 18.38        | 18.31        | 16.85        | 17.85        | 16.48        | 19.38        | 17.11        | 17.66        | 19.27        | 20.09        | 18.35        | 19.24        |
|      | <b>Grand mean</b> | <b>19.25</b> | <b>18.93</b> | <b>20.22</b> | <b>19.47</b> | <b>17.59</b> | <b>18.10</b> | <b>18.83</b> | <b>18.17</b> | <b>16.47</b> | <b>19.01</b> | <b>18.50</b> | <b>17.99</b> | <b>19.16</b> | <b>19.81</b> | <b>19.61</b> | <b>19.53</b> |



*Varietal Improvement Programme- AICRP (Sugarcane)  
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| S No | Entries           | Navsari      |              |              |              | Padegaon     |              |              |              | Perumallapalle |              |              |              | Pravaranagar |              |              |              |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP         | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |
| 1    | Co 14002          | 20.16        | 19.37        | 19.91        | <b>19.81</b> | 21.40        | 21.63        | 21.62        | <b>21.55</b> | 20.10          | 17.80        | 19.76        | <b>19.22</b> | 19.86        | 20.53        | 20.50        | <b>20.30</b> |
| 2    | Co 14004          | 20.07        | 21.44        | 19.94        | <b>20.48</b> | 21.58        | 22.93        | 22.41        | <b>22.31</b> | 19.77          | 18.14        | 19.38        | <b>19.10</b> | 21.86        | 21.66        | 21.57        | <b>21.70</b> |
| 3    | Co 14012          | 20.91        | 21.36        | 20.86        | <b>21.04</b> | 21.50        | 22.90        | 23.27        | <b>22.56</b> | 20.26          | 18.40        | 18.50        | <b>19.05</b> | 22.37        | 21.81        | 21.49        | <b>21.89</b> |
| 4    | Co 14016          | 19.29        | 20.47        | 19.18        | <b>19.65</b> | 20.42        | 21.63        | 20.97        | <b>21.01</b> | 19.43          | 16.60        | 18.49        | <b>18.17</b> | 19.80        | 20.19        | 20.29        | <b>20.09</b> |
| 5    | Co 14027          | 19.99        | 21.37        | 19.42        | <b>20.26</b> | 20.30        | 21.01        | 20.31        | <b>20.54</b> | 19.21          | 18.38        | 19.07        | <b>18.89</b> | 20.43        | 20.42        | 20.36        | <b>20.40</b> |
| 6    | Co 14030          | 20.77        | 21.32        | 20.08        | <b>20.72</b> | 21.22        | 20.75        | 21.41        | <b>21.13</b> | 17.12          | 16.74        | 18.01        | <b>17.29</b> | 21.70        | 20.92        | 20.64        | <b>21.09</b> |
| 7    | Co 14032          | 20.14        | 20.87        | 19.84        | <b>20.28</b> | 22.26        | 22.25        | 20.48        | <b>21.66</b> | 19.40          | 17.33        | 19.53        | <b>18.75</b> | 22.56        | 22.43        | 22.30        | <b>22.43</b> |
| 8    | CoN 14073         | 18.91        | 19.70        | 18.38        | <b>19.00</b> | 19.69        | 20.70        | 18.32        | <b>19.57</b> | 18.05          | 17.54        | 19.21        | <b>18.27</b> | 19.77        | 19.81        | 19.89        | <b>19.82</b> |
| 9    | CoSnk 14102       | 18.00        | 19.93        | 18.16        | <b>18.70</b> | 19.41        | 20.38        | 19.89        | <b>19.89</b> | 17.99          | 16.95        | 18.16        | <b>17.70</b> | 18.67        | 18.78        | 18.87        | <b>18.77</b> |
| 10   | CoSnk 14103       | 17.88        | 19.14        | 18.19        | <b>18.40</b> | 18.69        | 19.97        | 19.42        | <b>19.36</b> | 19.80          | 17.41        | 18.62        | <b>18.61</b> | 20.54        | 20.44        | 20.45        | <b>20.48</b> |
| 11   | CoT 14367         | 19.73        | 18.98        | 18.84        | <b>19.18</b> | 20.26        | 20.90        | 19.84        | <b>20.33</b> | 19.02          | 17.82        | 17.96        | <b>18.27</b> | 19.78        | 20.22        | 20.29        | <b>20.10</b> |
| 12   | CoT 14111         | 19.47        | 18.98        | 18.90        | <b>19.12</b> | 20.65        | 21.41        | 20.42        | <b>20.83</b> | 19.12          | 17.77        | 18.46        | <b>18.45</b> | 20.56        | 20.41        | 20.39        | <b>20.45</b> |
| 13   | CoYC 14062        | 20.41        | 20.44        | 19.42        | <b>20.09</b> | 20.48        | 21.65        | 21.12        | <b>21.08</b> | 19.26          | 17.94        | 19.47        | <b>18.89</b> | 21.25        | 20.48        | 20.36        | <b>20.70</b> |
| 14   | MS 14081          | 19.81        | 19.42        | 18.83        | <b>19.35</b> | 19.90        | 21.69        | 20.39        | <b>20.66</b> | 18.19          | 17.60        | 18.81        | <b>18.20</b> | 20.44        | 20.39        | 20.29        | <b>20.37</b> |
| 15   | MS 14082          | 17.94        | 19.90        | 19.56        | <b>19.13</b> | 20.46        | 21.71        | 19.56        | <b>20.58</b> | 20.29          | 18.00        | 19.53        | <b>19.27</b> | 20.66        | 20.77        | 20.85        | <b>20.76</b> |
|      | Standards         |              |              |              |              |              |              |              |              |                |              |              |              |              |              |              |              |
| 1    | Co 86032          | 19.30        | 20.52        | 19.43        | <b>19.75</b> | 20.27        | 21.79        | 20.01        | <b>20.69</b> | 18.17          | 18.16        | 19.03        | <b>18.45</b> | 20.70        | 20.80        | 20.90        | <b>20.80</b> |
| 2    | CoC 671           | 21.37        | 21.34        | 19.87        | <b>20.86</b> | 21.63        | 22.56        | 22.12        | <b>22.10</b> | 21.03          | 19.19        | 19.91        | <b>20.04</b> | 22.25        | 20.69        | 21.07        | <b>21.34</b> |
| 3    | CoSnk 05103       | 18.74        | 19.62        | 18.97        | <b>19.11</b> | 20.28        | 20.51        | 19.73        | <b>20.17</b> | 17.47          | 17.09        | 17.25        | <b>17.27</b> | 19.95        | 19.93        | 19.90        | <b>19.93</b> |
|      | <b>Grand mean</b> | <b>19.61</b> | <b>20.23</b> | <b>19.32</b> | <b>19.72</b> | <b>20.58</b> | <b>21.47</b> | <b>20.63</b> | <b>20.89</b> | <b>19.09</b>   | <b>17.71</b> | <b>18.84</b> | <b>18.55</b> | <b>20.73</b> | <b>20.63</b> | <b>20.58</b> | <b>20.65</b> |

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| S No | Entries           | Pugalur      |              |            |              | Pune         |              |              |              | Rudrur       |              |              |              | Sameerwadi   |              |              |              |
|------|-------------------|--------------|--------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         |
| 1    | Co 14002          | 16.77        | 14.95        | -          | <b>15.86</b> | 19.86        | 21.40        | 21.33        | <b>20.86</b> | 19.22        | 19.19        | 18.92        | <b>19.11</b> | 19.40        | 19.23        | 17.51        | <b>18.71</b> |
| 2    | Co 14004          | 17.92        | 14.84        | -          | <b>16.38</b> | 20.50        | 22.41        | 21.16        | <b>21.36</b> | 20.33        | 18.96        | 19.44        | <b>19.58</b> | 19.30        | 19.33        | 19.89        | <b>19.51</b> |
| 3    | Co 14012          | 15.96        | 14.21        | -          | <b>15.09</b> | 20.70        | 22.05        | 22.16        | <b>21.64</b> | 18.07        | 19.65        | 20.11        | <b>19.28</b> | 17.80        | 18.65        | 18.39        | <b>18.28</b> |
| 4    | Co 14016          | 16.46        | 14.47        | -          | <b>15.47</b> | 19.63        | 21.05        | 20.34        | <b>20.34</b> | 19.22        | 17.86        | 17.58        | <b>18.22</b> | 17.70        | 18.64        | 19.28        | <b>18.54</b> |
| 5    | Co 14027          | 16.72        | 15.95        | -          | <b>16.34</b> | 19.31        | 20.08        | 19.82        | <b>19.74</b> | 18.28        | 19.67        | 20.34        | <b>19.43</b> | 17.40        | 20.07        | 18.22        | <b>18.56</b> |
| 6    | Co 14030          | 16.44        | 14.39        | -          | <b>15.42</b> | 21.38        | 21.46        | 20.67        | <b>21.17</b> | 17.99        | 18.97        | 18.05        | <b>18.34</b> | 17.90        | 18.43        | 19.92        | <b>18.75</b> |
| 7    | Co 14032          | 18.87        | 16.1         | -          | <b>17.49</b> | 21.05        | 21.38        | 19.76        | <b>20.73</b> | 18.87        | 18.82        | 18.99        | <b>18.89</b> | 19.80        | 16.81        | 19.05        | <b>18.55</b> |
| 8    | CoN 14073         | 15.87        | 13.69        | -          | <b>14.78</b> | 18.34        | 19.16        | 19.39        | <b>18.96</b> | 18.15        | 16.97        | 19.18        | <b>18.10</b> | 18.40        | 16.57        | 19.69        | <b>18.22</b> |
| 9    | CoSnk 14102       | 15.45        | 14.85        | -          | <b>15.15</b> | 18.27        | 19.88        | 18.93        | <b>19.03</b> | 18.24        | 17.87        | 19.42        | <b>18.51</b> | 18.60        | 17.72        | 18.57        | <b>18.30</b> |
| 10   | CoSnk 14103       | 18.04        | 14.56        | -          | <b>16.30</b> | 13.95        | 18.54        | 19.17        | <b>17.22</b> | 15.88        | 19.66        | 19.44        | <b>18.33</b> | 18.50        | 17.24        | 17.46        | <b>17.73</b> |
| 11   | CoT 14367         | 15.74        | 14.41        | -          | <b>15.08</b> | 18.10        | 18.92        | 19.14        | <b>18.72</b> | 18.28        | 17.19        | 20.10        | <b>18.52</b> | 17.10        | 17.18        | 15.97        | <b>16.75</b> |
| 12   | CoT 14111         | 15.19        | 14.66        | -          | <b>14.93</b> | 19.23        | 18.40        | 19.06        | <b>18.90</b> | 18.85        | 16.76        | 19.19        | <b>18.26</b> | 19.00        | 16.89        | 18.42        | <b>18.10</b> |
| 13   | CoYC 14062        | 16.06        | 14.43        | -          | <b>15.25</b> | 17.69        | 21.09        | 21.18        | <b>19.99</b> | 14.95        | 18.38        | 20.28        | <b>17.87</b> | 19.20        | 18.60        | 19.34        | <b>19.05</b> |
| 14   | MS 14081          | 15.87        | 14.03        | -          | <b>14.95</b> | 19.78        | 20.90        | 20.74        | <b>20.47</b> | 17.25        | 19.18        | 20.13        | <b>18.85</b> | 17.90        | 18.59        | 17.87        | <b>18.12</b> |
| 15   | MS 14082          | 16.74        | 14.74        | -          | <b>15.74</b> | 18.06        | 20.87        | 20.88        | <b>19.94</b> | 19.86        | 19.66        | 19.89        | <b>19.80</b> | 18.40        | 18.39        | 17.42        | <b>18.07</b> |
|      | Standards         |              |              |            |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 1    | Co 86032          | 17.12        | 16.34        | -          | <b>16.73</b> | 19.35        | 19.59        | 20.12        | <b>19.69</b> | 18.75        | 20.34        | 19.63        | <b>19.57</b> | 17.10        | 19.26        | 19.45        | <b>18.60</b> |
| 2    | CoC 671           | 17.26        | 16.10        | -          | <b>16.68</b> | 20.82        | 22.55        | 22.36        | <b>21.91</b> | 20.04        | 20.38        | 20.37        | <b>20.26</b> | 19.80        | 19.92        | 18.92        | <b>19.55</b> |
| 3    | CoSnk 05103       | 17.77        | 14.67        | -          | <b>16.22</b> | 18.92        | 18.95        | 17.77        | <b>18.55</b> | 17.42        | 17.76        | 19.18        | <b>18.12</b> | 19.40        | 18.69        | 18.66        | <b>18.92</b> |
|      | <b>Grand mean</b> | <b>16.66</b> | <b>14.85</b> | <b>-</b>   | <b>15.76</b> | <b>19.16</b> | <b>20.48</b> | <b>20.22</b> | <b>19.95</b> | <b>18.31</b> | <b>18.74</b> | <b>19.46</b> | <b>18.83</b> | <b>18.48</b> | <b>18.35</b> | <b>19.01</b> | <b>18.61</b> |

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| S No | Entries           | Sankeshwar   |              |              |              | Thiruvalla   |              |              |              | Overall mean |              |              | Weighted Average | Rank |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|------|
|      |                   | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   | Mean         | AVT IP       | AVT IIP      | AVT Ratoon   |                  |      |
| 1    | Co 14002          | 14.11        | 21.19        | 23.14        | 19.48        | 19.34        | 19.09        | 18.64        | 19.02        | 18.98        | 19.27        | 18.46        | 18.91            |      |
| 2    | Co 14004          | 18.41        | 19.58        | 23.38        | 20.46        | 17.04        | 16.11        | 15.42        | 16.19        | 19.38        | 19.45        | 18.62        | 19.15            | 4    |
| 3    | Co 14012          | 23.62        | 22.36        | 23.97        | 23.32        | 19.29        | 19.75        | 19.18        | 19.41        | 19.48        | 19.91        | 18.99        | 19.46            | 2    |
| 4    | Co 14016          | 21.05        | 19.39        | 21.95        | 20.80        | 17.19        | 17.32        | 16.49        | 17.00        | 18.68        | 18.85        | 17.84        | 18.46            |      |
| 5    | Co 14027          | 21.79        | 20.17        | 21.69        | 21.22        | 16.36        | 15.81        | 15.36        | 15.84        | 18.83        | 19.29        | 18.37        | 18.83            |      |
| 6    | Co 14030          | 19.20        | 21.52        | 22.41        | 21.04        | 17.56        | 17.82        | 17.11        | 17.50        | 18.74        | 19.33        | 18.22        | 18.76            |      |
| 7    | Co 14032          | 20.46        | 21.32        | 23.86        | 21.88        | 17.65        | 17.31        | 16.87        | 17.28        | 19.58        | 19.52        | 18.81        | 19.31            | 3    |
| 8    | CoN 14073         | 15.89        | 19.20        | 20.34        | 18.48        | 15.52        | 16.11        | 15.44        | 15.69        | 17.84        | 17.93        | 17.14        | 17.64            |      |
| 9    | CoSnk 14102       | 18.29        | 18.29        | 20.68        | 19.09        | 17.63        | 16.72        | 15.89        | 16.75        | 17.83        | 18.22        | 17.52        | 17.86            |      |
| 10   | CoSnk 14103       | 18.09        | 17.87        | 21.14        | 19.03        | 15.90        | 16.11        | 15.67        | 15.89        | 17.72        | 18.17        | 17.25        | 17.71            |      |
| 11   | CoT 14367         | 19.87        | 16.02        | 21.34        | 19.08        | 17.26        | 17.32        | 16.55        | 17.04        | 18.02        | 17.77        | 17.57        | 17.79            |      |
| 12   | CoTl 14111        | 19.96        | 18.39        | 21.33        | 19.89        | 17.57        | 17.26        | 16.65        | 17.16        | 18.82        | 18.18        | 17.75        | 18.25            |      |
| 13   | CoYC 14062        | 21.78        | 20.78        | 23.14        | 21.90        | 18.90        | 19.23        | 18.43        | 18.85        | 18.91        | 19.30        | 18.45        | 18.89            |      |
| 14   | MS 14081          | 19.11        | 21.33        | 23.29        | 21.24        | 18.38        | 17.61        | 17.23        | 17.74        | 18.60        | 19.11        | 18.33        | 18.68            |      |
| 15   | MS 14082          | 20.63        | 18.86        | 22.31        | 20.60        | 18.32        | 18.71        | 17.91        | 18.31        | 18.68        | 19.04        | 18.46        | 18.73            |      |
|      | Standards         |              |              |              |              |              |              |              |              |              |              |              |                  |      |
| 1    | Co 86032          | 20.03        | 19.48        | 21.48        | 20.33        | 19.13        | 18.34        | 18.19        | 18.55        | 18.81        | 19.39        | 18.34        | 18.85            |      |
| 2    | CoC 671           | 23.70        | 21.04        | 23.67        | 22.80        | 20.14        | 19.67        | 19.39        | 19.73        | 20.31        | 20.36        | 19.32        | 20.00            | 1    |
| 3    | CoSnk 05103       | 20.57        | 18.56        | 21.28        | 20.14        | 18.38        | 17.24        | 17.09        | 17.57        | 18.64        | 18.45        | 17.22        | 18.10            |      |
|      | <b>Grand mean</b> | <b>19.81</b> | <b>20.28</b> | <b>22.24</b> | <b>20.78</b> | <b>17.86</b> | <b>17.64</b> | <b>17.08</b> | <b>17.53</b> | <b>18.77</b> | <b>19.02</b> | <b>18.18</b> | <b>18.66</b>     |      |

Fig. 2.3.1. Pooled mean for sugar yield t/ha

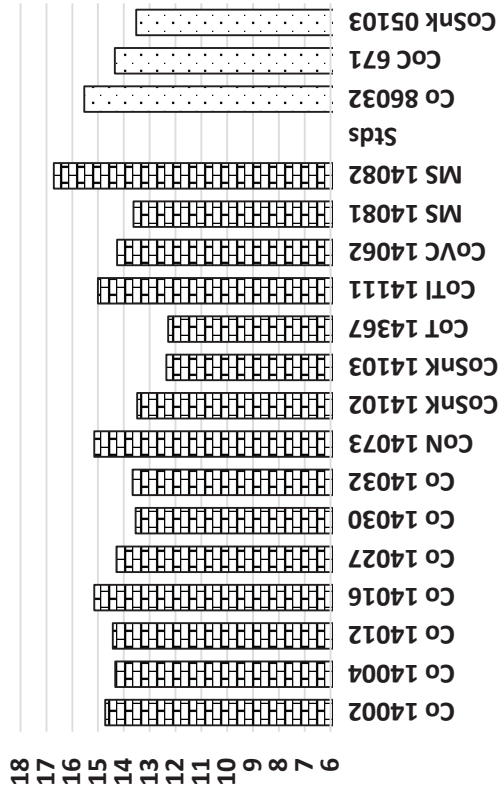


Fig. 2.3.1. Pooled mean for sugar yield t/ha

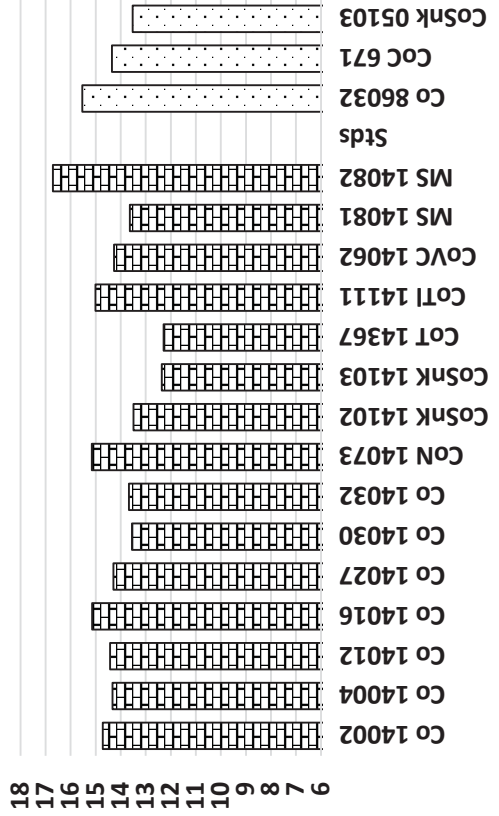


Fig. 2.3.3. Pooled mean for CCS %

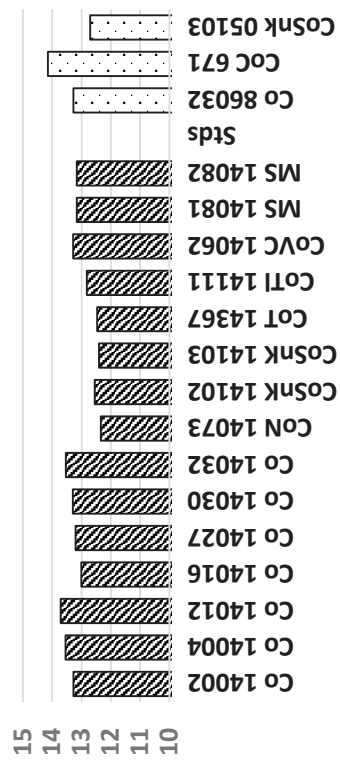
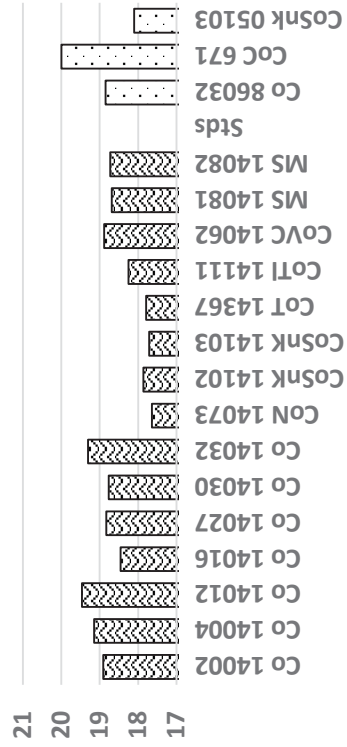


Fig. 2.3.4. Pooled mean for Sucrose %



## 2.4. Advanced Varietal Trial I Plant (2020-21)

|  |   |
|--|---|
| Centers where trial was conducted (16) | Coimbatore, Basmathnagar, Belgaum, Kawardha, Kolhapur, Mandya, Navsari, Padegaon, Perumallapalle, Pravaranagar, Pugalur, Pune, Rudrur, Sameervadi, Sankeshwar, Thiruvalla |
| Entries (12)                           | Co 11015, Co 14005, Co 15005, Co 15006, Co 15007, Co 15009, Co 15010, Co 15017, Co 15021, CoSnk 15102, CoN 15071, PI 15131  |
| Standards (3)                          | Co 86032, CoC 671 and Co 09004  |
| Design                                 | RBD   |
| Replications                           | Three   |
| Plot size                              | 6 m x 8 rows x 1.2 m (Gross)<br>5m x 6 rows x 1.2 m (Net)   |
| Seed rate                              | 12 buds per meter   |
| Planting time                          | December- January   |
| Crop duration                          | 12 months   |

**Results of the previous year:** Twenty-six entries along with four standards (Co 86032, CoC 671, Co 85004 and CoSnk 05103) were evaluated in randomised block design at 15 locations during 2018-19. Eight entries *viz.*, PI 15132, Co 15010, CoVSI 15121, Co 15009, CoN 15071, VSI 15122, CoSnk 15102 and Co 15007 recorded higher sugar yield than the best check Co 86032 (15.75 t/ha). For cane yield, 12 entries showed numerically higher yield than the best check Co 86032 (114.18 t/ha) across all locations of the zone and CoVSI 15121 (128.51 t/ha) was the best entry followed by VSI 15122 (124.36 t/ha) and CoN 15071 (123.51 t/ha). None of the entries recorded higher CCS % and sucrose per cent than the best standard CoC 671 (14.61% and 19.85% respectively). No qualifying entry was identified.

**Results of the current year:** Twelve clones were evaluated along with three standards (Co 86032, CoC 671 and Co 09004) at 16 centres during 2020-21 in randomized block design. The trial was not conducted at Powerkheda, Sirugamani and Tarsa centres. Two test entries *viz.*, Co 14005 (17.04 t/ha) and Co 11015 (16.98 t/ha) recorded higher sugar yield than the best standard Co 86032 (16.47 t/ha) in the zone and had more than 10% improvement over the best standard at two and four locations respectively. Four entries *viz.*, PI 15131 (123.38 t/ha), Co 14005 (122.81 t/ha), Co 15010 (121.75t/ha), and CoN 15071 (120.61 t/ha) recorded higher cane yield than the best check Co 86032 (120.20 t/ha). The entries PI 15131 and Co 15010 recorded more than 10% improvement for cane yield over the best standard at five locations each followed by CoN 15071 at three locations and Co 14005 at two locations respectively. None of the entries recorded more than 10% improvement over the best standard for mean CCS yield and cane yield across the locations. Co 11015 recorded higher CCS % (14.73) and sucrose per cent (20.91) than the best standard CoC 671 (14.41% and 20.54% respectively). Co 11015 was numerically superior to the best standard for sugar yield, CCS % and sucrose percent in the zone. Co 14005 was numerically superior to the best standard for both sugar yield and cane yield and ranked as fifth in the zone for quality traits. The data are presented in the tables **2.4.1 to 2.4.34**.

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**Table 2.4.1 CCS t/ha at harvest**

| S No   | Entries           | Coimbatore#  | Basmath nagar | Belgaum      | Kawar dha#   | Kolha pur#   | Mandya       | Navsari#     | Padeg aon    | Perumal apalle | Pravara anagar | Pugalur      | Pune         | Rudrur       | Sameer wadi  | Sankeer hwar | Thiruvalla#  | Mean         | Rank |
|--|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| 1  | Co 11015          | 22.75*       | 15.08         | 18.68        | 13.73        | 15.85        | 15.22        | 17.30        | 21.84        | 19.51          | 17.85          | 14.58        | 20.20        | 15.68        | 15.29        | 14.90        | 13.19        | 16.98        | 2    |
| 2  | Co 14005          | 17.81        | 14.31         | 17.41        | 11.52        | 16.89        | 15.35        | 14.64        | 22.37        | 15.64          | 19.03          | 16.97        | 20.08        | 18.09        | 14.77        | 20.98        | 16.81*       | 17.04        | 1    |
| 3  | Co 15005          | 14.74        | 13.41         | 16.58        | 18.55*       | 13.61        | 15.71        | 13.76        | 17.35        | 17.61          | 15.83          | 13.25        | 16.54        | 19.83        | 11.86        | 15.98        | 15.19        | 15.61        |      |
| 4  | Co 15006          | 15.11        | 13.17         | 13.46        | 14.80*       | 13.74        | 16.50        | 15.32        | 21.33        | 10.16          | 14.98          | 15.34        | 17.56        | 19.54        | 17.11        | 15.95        | 11.07        | 15.33        |      |
| 5  | Co 15007          | 17.70        | 16.16         | 15.94        | 16.38*       | 19.05*       | 16.27        | 13.36        | 19.50        | 15.97          | 14.66          | 13.24        | 18.36        | 15.08        | 10.87        | 19.63        | 13.95        | 16.01        |      |
| 6  | Co 15009          | 18.91        | 15.79         | 15.54        | 12.09        | 19.49*       | 10.96        | 15.44        | 19.92        | 11.22          | 16.31          | 13.94        | 20.03        | 18.50        | 13.39        | 17.02        | 10.81        | 15.59        |      |
| 7  | Co 15010          | 17.36        | 13.56         | 20.26        | 14.11        | 12.51        | 15.25        | 16.22        | 14.64        | 15.05          | 19.04          | 16.62        | 20.05        | 19.21        | 11.90        | 16.83        | 13.84        | 16.03        |      |
| 8  | Co 15017          | 20.01*       | 13.74         | 14.12        | 13.46        | 12.25        | 13.04        | 14.66        | 21.39        | 16.70          | 16.63          | 16.14        | 18.95        | 16.18        | 14.75        | 17.40        | 11.85        | 15.70        |      |
| 9  | Co 15021          | 19.57*       | 16.72         | 19.27        | 12.05        | 16.06        | 14.94        | 14.74        | 16.98        | 15.84          | 13.86          | 13.57        | 19.75        | 12.71        | 11.69        | 15.52        | 12.94        | 15.39        |      |
| 10   | CoSnk 15102       | 16.43        | 12.85         | 14.64        | 9.78         | 10.81        | 16.61        | 17.88*       | 16.88        | 18.59          | 17.26          | 10.96        | 17.31        | 10.65        | 13.79        | 18.52        | 12.48        | 14.71        |      |
| 11   | CoN 15071         | 15.33        | 15.64         | 17.96        | 12.14        | 14.57        | 14.26        | 18.85*       | 18.50        | 14.95          | 18.25          | 15.01        | 22.00        | 13.21        | 13.59        | 22.31        | 10.21        | 16.05        |      |
| 12   | PI 15131          | 14.12        | 14.84         | 19.82        | 18.19*       | 16.27        | 13.82        | 16.55        | 18.83        | 19.05          | 15.24          | 15.31        | 18.41        | 16.13        | 13.72        | 19.57        | 10.43        | 16.27        | 4    |
| <b>Stds</b>  |                   |              |               |              |              |              |              |              |              |                |                |              |              |              |              |              |              |              |      |
| 1  | Co 86032          | 15.94        | 15.85         | 19.81        | 11.75        | 14.74        | 17.84        | 14.97        | 21.68        | 15.93          | 21.14          | 16.21        | 17.44        | 16.55        | 11.20        | 20.00        | 12.39        | 16.47        | 3    |
| 2  | CoC 671           | 16.39        | 16.15         | 14.68        | 11.44        | 12.65        | 16.16        | 14.60        | 18.43        | 11.90          | 18.66          | 16.72        | 17.85        | 17.17        | 13.05        | 15.17        | 12.07        | 15.19        |      |
| 3  | Co 09004          | 16.66        | 16.37         | 19.60        | 11.41        | 12.40        | 18.03        | 14.06        | 18.01        | 17.10          | 16.22          | 15.22        | 20.40        | 13.88        | 17.45        | 19.72        | 12.37        | 16.18        | 5    |
|  | <b>Grand mean</b> | <b>16.18</b> | <b>14.91</b>  | <b>17.19</b> | <b>13.42</b> | <b>14.73</b> | <b>15.33</b> | <b>15.49</b> | <b>19.18</b> | <b>15.68</b>   | <b>17.01</b>   | <b>14.88</b> | <b>19.00</b> | <b>16.16</b> | <b>13.90</b> | <b>17.97</b> | <b>12.64</b> | <b>15.85</b> |      |
|  | SE                | 0.94         | 1.18          | 1.34         | 0.88         | 1.28         | 0.65         | 0.84         | 0.80         | 1.70           | 0.36           | 0.77         | 0.85         | 1.74         | 1.04         | 1.27         | 0.69         |              |      |
|  | CD                | 2.74         | NS            | 3.88         | 2.51         | 3.70         | 1.88         | 2.43         | 2.33         | 4.91           | 1.06           | 2.22         | 2.47         | 5.05         | 3.02         | 3.68         | 1.96         |              |      |
|  | CV                | 10.10        | 13.76         | 13.51        | 11.35        | 15.02        | 7.34         | 9.36         | 7.26         | 18.73          | 3.73           | 8.91         | 7.77         | 18.68        | 13.18        | 12.25        | 9.42         |              |      |
| <b>Top three qualifying entries at each location</b> |                   |              |               |              |              |              |              |              |              |                |                |              |              |              |              |              |              |              |      |
|  | Co 11015          |              |               |              | Co 15005     | Co 15009     |              | CoN 15071    |              | Co 11015       |                |              |              | Co 15005     |              |              | Co 14005     |              |      |
|  | Co 15017          |              |               |              | PI 15131     | Co 15007     |              | CoSnk 15102  |              | PI 15131       |                |              |              | Co 15006     |              |              | Co 15005     |              |      |
|  | Co 15021          |              |               |              | Co 15007     | Co 14005     |              | Co 11015     |              |                |                |              |              | Co 15010     |              |              | Co 15007     |              |      |

\*Significant at 5% level # only top three qualifying entries are mentioned

**Qualifying entries:** Co 11015 (4), PI 15131 (4), Co 15005 (3), Co 15007 (3), Co 15010 (3), Co 14005 (2), Co 15006 (2), Co 15009 (2), Co 15017 (1), Co 15021 (1), CoSnk 15102 (1), CoN 15071 (1)

**Performance across locations:** Two entries viz., Co 14005 (17.04 t/ha) and Co 11015 (16.98 t/ha) recorded higher sugar yield than the best standard Co 86032 (16.47 t/ha) in the zone. The first ranked entry in the zone Co 14005 recorded more than 10% improvement over the best standard at two locations. The second ranked entry was Co 11015 and had more than 10% improvement over the best standard at four locations. The test entry PI 15131 had more than 10% improvement over the best standard at four locations and ranked as fourth in the zone.

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**Table 2.4.2 Cane yield t/ha at harvest**

| S No  | Entries           | Coimbatore#   | Basmathnagar  | Belgaum       | Kawardha#    | Kolhapur#     | Mandya        | Navsari#      | Padegao       | Perumallapale | Pravaranagar  | Pugalur       | Pune#         | Rudrur        | Sameerwad#   | Sankeshwar    | Thiruvallur# | Mean          | Rank |
|---|-------------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|--------------|---------------|------|
| 1   | Co 11015          | 148.98*       | 114.85        | 126.54        | 90.00        | 112.46        | 101.46        | 112.55        | 129.26        | 142.11        | 115.53        | 130.80        | 120.61        | 109.58        | 109.12       | 87.54         | 98.44        | 115.61        |      |
| 2   | Co 14005          | 130.42        | 113.13        | 122.39        | 88.78        | 126.12        | 103.33        | 113.03        | 142.45        | 116.72        | 139.89        | 151.17        | 130.18        | 126.47        | 108.70       | 128.93        | 123.32*      | 122.81        | 2    |
| 3   | Co 15005          | 109.27        | 105.52        | 119.72        | 131.60*      | 97.22         | 106.74        | 106.27        | 108.35        | 131.64        | 111.62        | 120.27        | 106.68        | 138.16        | 96.60        | 94.75         | 117.60*      | 112.63        |      |
| 4   | Co 15006          | 111.04        | 99.84         | 99.50         | 93.86        | 107.74        | 110.97        | 126.01*       | 140.17        | 85.65         | 107.22        | 143.92        | 121.89        | 137.04        | 130.78*      | 114.43        | 89.76        | 113.74        |      |
| 5   | Co 15007          | 118.64        | 130.17        | 109.29        | 117.78*      | 138.28*       | 107.50        | 110.18        | 128.60        | 126.02        | 111.21        | 123.47        | 116.87        | 108.05        | 88.08        | 117.40        | 109.09       | 116.29        |      |
| 6   | Co 15009          | 144.49        | 121.03        | 114.10        | 97.78        | 150.73*       | 77.85         | 115.58        | 131.14        | 85.29         | 105.44        | 146.62        | 142.78*       | 128.54        | 118.25       | 117.17        | 91.20        | 118.00        |      |
| 7   | Co 15010          | 133.00        | 104.15        | 146.18        | 102.79*      | 99.49         | 110.14        | 120.31*       | 106.94        | 134.21        | 122.43        | 144.47        | 145.36*       | 137.22        | 107.29       | 115.60        | 118.35*      | 121.75        | 3    |
| 8   | Co 15017          | 135.92        | 99.83         | 96.84         | 110.30*      | 90.19         | 88.47         | 105.97        | 136.87        | 132.54        | 122.08        | 150.09        | 115.99        | 111.40        | 115.25       | 101.38        | 93.23        | 112.90        |      |
| 9   | Co 15021          | 139.69        | 128.62        | 141.55        | 83.93        | 124.53        | 102.99        | 103.18        | 113.62        | 122.26        | 105.73        | 128.10        | 143.38*       | 103.43        | 96.39        | 94.42         | 97.92        | 114.36        |      |
| 10  | CoSnk 15102       | 120.03        | 103.93        | 102.86        | 68.09        | 92.53         | 114.38        | 132.30*       | 119.54        | 146.71        | 116.74        | 88.39         | 116.14        | 75.22         | 117.45       | 119.37        | 99.25        | 108.31        |      |
| 11  | CoN 15071         | 119.26        | 124.15        | 128.70        | 91.93        | 122.97        | 104.44        | 136.85*       | 126.65        | 120.33        | 134.35        | 137.36        | 148.75*       | 96.38         | 103.83       | 146.10        | 87.73        | 120.61        | 4    |
| 12  | PI 15131          | 113.34        | 120.70        | 140.01        | 132.50*      | 137.76*       | 97.08         | 131.59*       | 126.43        | 162.96        | 111.96        | 144.69        | 118.70        | 110.37        | 117.16       | 120.27        | 88.60        | 123.38        | 1    |
|   | <b>Std's</b>      |               |               |               |              |               |               |               |               |               |               |               |               |               |              |               |              |               |      |
| 1   | Co 86032          | 118.77        | 112.84        | 142.64        | 84.01        | 112.39        | 127.85        | 106.77        | 150.47        | 123.47        | 148.08        | 140.83        | 121.23        | 118.46        | 86.84        | 132.37        | 96.12        | 120.20        | 5    |
| 2   | CoC 671           | 111.88        | 127.51        | 96.40         | 80.16        | 93.36         | 105.21        | 102.20        | 115.79        | 92.59         | 118.68        | 153.95        | 110.48        | 113.95        | 94.60        | 90.36         | 90.22        | 106.08        |      |
| 3   | Co 09004          | 116.68        | 118.09        | 141.08        | 82.85        | 91.03         | 120.14        | 106.25        | 122.22        | 130.55        | 104.04        | 136.97        | 127.04        | 97.63         | 99.41        | 120.00        | 95.83        | 113.11        |      |
|   | <b>Grand mean</b> | <b>124.76</b> | <b>114.96</b> | <b>121.86</b> | <b>97.09</b> | <b>113.12</b> | <b>105.24</b> | <b>115.27</b> | <b>126.57</b> | <b>123.54</b> | <b>118.33</b> | <b>136.07</b> | <b>125.74</b> | <b>114.13</b> | <b>93.62</b> | <b>113.34</b> | <b>99.78</b> | <b>115.21</b> |      |
|   | SE                | 7.58          | 7.30          | 9.40          | 5.25         | 8.32          | 3.81          | 4.84          | 4.43          | 12.79         | 2.06          | 7.17          | 4.8           | 12.19         | 7.88         | 7.19          | 5.14         |               |      |
|   | CD                | 22.08         | 21.14         | 27.23         | 15.01        | 24.09         | 11.04         | 14.02         | 12.83         | 37.06         | 5.97          | 20.77         | 13.91         | 35.31         | 22.94        | 20.82         | 14.61        |               |      |
|   | CV                | 10.53         | 11.00         | 13.36         | 9.37         | 12.73         | 6.27          | 7.27          | 6.06          | 17.93         | 3.02          | 9.13          | 6.62          | 18.50         | 12.68        | 10.98         | 8.92         |               |      |
| Top three qualifying entries at each location |                   |               |               |               |              |               |               |               |               |               |               |               |               |               |              |               |              |               |      |
|   |                   | Co 11015      |               |               | PI 15131     | Co 15009      |               | CoN 15071     |               | PI 15131      |               |               | CoN 15071     | Co 15005      | Co 15006     | CoN 15071     | Co 14005     |               |      |
|   |                   | Co 15009      |               |               | Co 15005     | Co 15007      |               | CoSnk 15102   |               | CoSnk 15102   |               |               | Co 15010      | Co 15009      | Co 15009     |               | Co 15010     |               |      |
|   |                   | Co 15021      |               |               | Co 15007     | PI 15131      |               | PI 15131      |               |               |               |               | Co 15021      | Co 15006      | CoSnk 15102  |               | Co 15005     |               |      |

\*Significant at 5% level # only top three qualifying entries are mentioned

**Qualifying entries:** Co 15009 (5), Co 15010 (5), PI 15131 (5), Co 15005 (3), Co 15006 (3), Co 15017 (3), Co 15021 (3), CoSnk 15102 (3), CoN 15071 (3), Co 14005 (2), Co 11015 (1)

**Performance across locations:** Four entries viz., PI 15131 (123.38 t/ha), Co 14005 (122.81 t/ha), Co 15010 (121.75t/ha), and CoN 15071 (120.61 t/ha) recorded higher cane yield than the best check Co 86032 (120.20 t/ha). The first ranked entry in the zone was PI 15131 with more than 10% improvement over the best standard at five locations. Co 14005 and Co 15010 were at second and third positions respectively in the zone and had more than 10% improvement over the best standard at five centres.

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**Table 2.4.3 CCS % at harvest**

| S No  | Entries           | Coimbatore   | Basmath nagar | Belgaum      | Kawartha     | Kolhapur     | Mandya       | Navsari      | Padegao      | Perumnal     | Pravara nagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sankeshwar   | Thiruvalla   | Mean         | Rank |
|---|-------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| 1   | Co 11015          | 15.27        | 13.16         | 14.80        | 15.30        | 14.08        | 14.98        | 15.37*       | 16.90        | 13.73*       | 15.46         | 11.13        | 16.75        | 14.31        | 14.00        | 17.01        | 13.40        | 14.73        | 1    |
| 2   | Co 14005          | 13.67        | 12.66         | 14.25        | 12.95        | 13.36        | 14.85        | 12.97        | 15.71        | 13.40        | 13.60         | 11.21        | 15.43        | 14.30        | 13.62        | 16.27        | 13.62        | 13.87        | 5    |
| 3   | Co 15005          | 13.45        | 12.7          | 13.89        | 14.08        | 13.99        | 14.74        | 12.94        | 16.02        | 13.40        | 14.16         | 10.42        | 15.50        | 14.34        | 12.45        | 16.90        | 12.92        | 13.87        | 5    |
| 4   | Co 15006          | 13.55        | 13.18         | 13.54        | 15.77        | 12.72        | 14.87        | 12.12        | 15.22        | 11.88        | 13.99         | 10.79        | 14.41        | 14.26        | 13.09        | 13.91        | 12.31        | 13.48        |      |
| 5   | Co 15007          | 14.92        | 12.42         | 14.59        | 13.81        | 13.81        | 15.16        | 12.13        | 15.07        | 12.66        | 13.19         | 10.73        | 15.70        | 13.96        | 12.39        | 16.70        | 12.81        | 13.75        |      |
| 6   | Co 15009          | 13.10        | 13.04         | 13.63        | 12.49        | 12.85        | 14.08        | 13.36        | 15.19        | 12.98        | 15.48         | 9.49         | 14.03        | 14.39        | 11.32        | 14.55        | 11.84        | 13.24        |      |
| 7   | Co 15010          | 13.07        | 12.97         | 13.86        | 13.72        | 12.58        | 13.82        | 13.48        | 13.70        | 11.21        | 15.56         | 10.54        | 13.78        | 13.99        | 11.10        | 14.58        | 11.68        | 13.10        |      |
| 8   | Co 15017          | 14.72        | 13.76         | 14.60        | 12.18        | 13.57        | 14.76        | 13.74        | 15.63        | 12.60        | 13.54         | 10.76        | 16.34        | 14.53        | 12.74        | 17.17        | 12.70        | 13.96        | 4    |
| 9   | Co 15021          | 14.16        | 12.99         | 13.64        | 14.30        | 12.89        | 14.51        | 14.29        | 15.01        | 12.96        | 13.14         | 10.58        | 13.75        | 12.29        | 12.10        | 16.44        | 13.23        | 13.52        |      |
| 10  | CoSnk 15102       | 13.65        | 12.38         | 14.31        | 14.37        | 11.69        | 14.53        | 13.52        | 14.18        | 12.66        | 14.72         | 11.15        | 14.91        | 14.16        | 11.77        | 15.51        | 12.59        | 13.51        |      |
| 11  | CoN 15071         | 12.87        | 12.56         | 13.86        | 13.20        | 11.85        | 13.66        | 13.78        | 14.60        | 12.43        | 13.59         | 10.92        | 14.78        | 13.71        | 13.08        | 15.30        | 11.59        | 13.24        |      |
| 12  | PI 15131          | 12.58        | 12.31         | 14.16        | 13.73        | 11.81        | 14.22        | 12.58        | 14.93        | 11.67        | 13.74         | 10.58        | 15.52        | 14.62        | 11.80        | 16.26        | 11.79        | 13.27        |      |
| <b>Stds</b>                                   |                   |              |               |              |              |              |              |              |              |              |               |              |              |              |              |              |              |              |      |
| 1   | Co 86032          | 13.44        | 14.01         | 13.92        | 13.98        | 13.09        | 13.96        | 14.01        | 14.41        | 12.93        | 14.27         | 11.51        | 14.37        | 13.97        | 12.97        | 15.09        | 12.96        | 13.68        |      |
| 2   | CoC 671           | 14.64        | 12.69         | 15.22        | 14.28        | 13.62        | 15.36        | 14.30        | 15.93        | 12.83        | 15.53         | 10.87        | 16.17        | 15.07        | 13.82        | 16.82        | 13.39        | 14.41        | 2    |
| 3   | Co 09004          | 14.31        | 13.76         | 13.90        | 13.75        | 13.65        | 14.99        | 13.25        | 14.78        | 13.08        | 15.49         | 11.12        | 16.06        | 14.22        | 14.09        | 16.34        | 12.91        | 14.11        | 3    |
|   | <b>Grand mean</b> | <b>13.64</b> | <b>12.97</b>  | <b>14.14</b> | <b>13.86</b> | <b>13.04</b> | <b>14.57</b> | <b>13.46</b> | <b>15.15</b> | <b>12.69</b> | <b>14.36</b>  | <b>10.78</b> | <b>15.17</b> | <b>14.14</b> | <b>13.63</b> | <b>15.92</b> | <b>12.65</b> | <b>13.76</b> |      |
|   | SE                | 0.50         | 0.47          | 0.30         | 0.48         | 0.43         | 0.28         | 0.31         | 0.4          | 0.19         | 0.26          | 0.13         | 0.22         | 0.02         | 0.57         | 0.37         | 0.34         |              |      |
|   | CD                | 1.46         | NS            | 0.88         | 1.40         | 1.24         | 0.82         | 0.91         | 1.15         | 0.54         | 0.78          | 0.39         | 0.64         | 0.05         | 1.68         | 1.09         | 0.97         |              |      |
|   | CV                | 6.28         | 6.22          | 3.72         | 6.11         | 5.66         | 3.36         | 4.03         | 4.55         | 2.56         | 3.24          | 2.15         | 2.54         | 0.22         | 7.90         | 4.08         | 4.65         |              |      |
| Top three qualifying entries at each location |                   |              |               |              |              |              |              |              |              |              |               |              |              |              |              |              |              |              |      |
|   |                   |              |               |              | Co 15006     |              |              | Co 11015     | Co 11015     | Co 11015     |               |              |              |              |              |              |              |              |      |
|   |                   |              |               |              | Co 11015     |              |              |              |              |              |               |              |              |              |              |              |              |              |      |
|   |                   |              |               |              |              |              |              |              |              |              |               |              |              |              |              |              |              |              |      |

\*Significant at 5% level

**Qualifying entries:** Co 11015 (4), Co 15006 (1)

**Performance across locations:** Only one entry Co 11015 (14.73%) recorded higher CCS% than the best standard CoC 671 (14.41%) and had more than 5% improvement over the best standard at four locations. The test entry Co 15006 (13.48%) had more than 5% improvement over the best standard at Kawardha centre.



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**Table 2.4.4 Sucrose% at harvest**

| S No  | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha     | Kolhapur     | Mandya       | Navsari      | Padegao      | Perumalpal   | Pravara      | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sankeshwar   | Thiruvalla   | Mean         | Rank |
|---|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| 1   | Co 11015          | 21.53        | 18.59        | 20.86        | 21.65        | 20.79        | 21.01        | 21.72*       | 23.70*       | 19.66*       | 21.93        | 16.26        | 23.11        | 20.31        | 20.24        | 23.97        | 19.17        | 20.91        | 1    |
| 2   | Co 14005          | 19.39        | 18.09        | 20.32        | 18.60        | 19.66        | 20.81        | 18.76        | 22.03        | 19.22        | 19.33        | 16.29        | 21.29        | 20.30        | 19.64        | 22.86        | 19.46        | 19.75        | 5    |
| 3   | Co 15005          | 19.07        | 18.10        | 19.91        | 20.21        | 20.35        | 20.74        | 18.74        | 22.37        | 19.22        | 20.03        | 15.43        | 21.38        | 20.35        | 18.04        | 23.58        | 18.50        | 19.75        | 5    |
| 4   | Co 15006          | 19.18        | 18.81        | 19.15        | 22.15        | 18.84        | 20.83        | 17.53        | 21.36        | 17.16        | 20.01        | 15.74        | 19.97        | 20.33        | 18.80        | 19.75        | 17.60        | 19.20        |      |
| 5   | Co 15007          | 21.04        | 17.61        | 20.75        | 19.84        | 20.13        | 21.27        | 17.45        | 21.29        | 18.24        | 18.91        | 15.58        | 21.69        | 19.66        | 17.98        | 23.28        | 18.35        | 19.57        |      |
| 6   | Co 15009          | 19.31        | 18.48        | 19.46        | 18.24        | 18.99        | 19.79        | 19.15        | 21.53        | 18.63        | 21.81        | 13.70        | 19.66        | 20.31        | 16.69        | 20.61        | 16.94        | 18.96        |      |
| 7   | Co 15010          | 18.71        | 18.93        | 19.69        | 19.74        | 18.75        | 19.45        | 19.40        | 19.57        | 16.19        | 21.99        | 15.45        | 19.38        | 19.67        | 16.22        | 20.98        | 16.71        | 18.80        |      |
| 8   | Co 15017          | 20.74        | 19.51        | 20.68        | 17.78        | 19.93        | 20.72        | 19.84        | 21.84        | 18.08        | 19.29        | 15.81        | 22.62        | 20.36        | 18.3         | 23.99        | 18.20        | 19.86        | 4    |
| 9   | Co 15021          | 20.11        | 18.63        | 19.36        | 20.36        | 19.19        | 20.50        | 20.29        | 21.10        | 18.60        | 18.80        | 15.49        | 19.31        | 17.60        | 17.64        | 23.18        | 18.94        | 19.32        |      |
| 10  | CoSnk 15102       | 19.68        | 17.90        | 20.27        | 20.66        | 17.81        | 20.38        | 19.36        | 20.04        | 18.13        | 20.77        | 16.30        | 20.55        | 20.28        | 17.06        | 21.89        | 18.05        | 19.32        |      |
| 11  | CoN 15071         | 18.42        | 18.29        | 19.75        | 19.21        | 17.72        | 19.12        | 19.40        | 20.52        | 17.82        | 19.20        | 15.90        | 20.64        | 19.42        | 18.87        | 21.57        | 16.57        | 18.90        |      |
| 12  | PI 15131          | 18.25        | 17.37        | 20.08        | 19.84        | 18.02        | 19.95        | 18.32        | 21.06        | 16.86        | 18.92        | 15.47        | 21.48        | 20.85        | 16.99        | 22.98        | 16.86        | 18.96        |      |
| <b>Stds</b>                                   |                   |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |      |
| 1   | Co 86032          | 19.32        | 19.71        | 19.75        | 20.16        | 19.29        | 19.64        | 19.70        | 20.28        | 18.52        | 20.12        | 16.75        | 19.95        | 19.67        | 18.59        | 21.51        | 18.57        | 19.47        |      |
| 2   | CoC 671           | 21.22        | 18.33        | 21.39        | 20.46        | 19.96        | 21.56        | 20.40        | 22.34        | 18.46        | 22.19        | 15.90        | 22.31        | 21.31        | 19.86        | 23.81        | 19.17        | 20.54        | 2    |
| 3   | Co 09004          | 20.23        | 18.99        | 19.76        | 19.80        | 20.09        | 20.99        | 19.07        | 21.04        | 18.76        | 22.32        | 16.43        | 22.23        | 20.34        | 20.44        | 23.15        | 18.50        | 20.13        | 3    |
|   | <b>Grand mean</b> | <b>19.56</b> | <b>18.49</b> | <b>20.08</b> | <b>19.91</b> | <b>19.30</b> | <b>20.45</b> | <b>19.28</b> | <b>21.34</b> | <b>18.23</b> | <b>20.37</b> | <b>15.76</b> | <b>21.04</b> | <b>20.05</b> | <b>19.63</b> | <b>22.47</b> | <b>18.11</b> | <b>19.63</b> |      |
|   | SE                | 0.59         | 0.52         | 0.36         | 0.61         | 0.50         | 0.40         | 0.35         | 0.46         | 0.26         | 0.37         | 0.20         | 0.30         | 0.03         | 0.78         | 0.41         | 0.48         |              |      |
|   | CD                | 1.71         | NS           | 1.04         | 1.75         | 1.43         | 1.16         | 1.02         | 1.33         | 0.75         | 1.08         | 0.57         | 0.86         | 0.08         | 2.29         | 1.20         | 1.38         |              |      |
|   | CV                | 5.14         | 4.89         | 3.10         | 5.34         | 4.44         | 3.38         | 3.17         | 3.73         | 2.46         | 3.17         | 2.17         | 2.44         | 0.23         | 7.42         | 3.20         | 4.63         |              |      |
| Top three qualifying entries at each location |                   |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |      |
|   |                   |              |              |              | Co 15006     |              |              | Co 11015     |              |              |              |              |              |              |              |              |              |              |      |
|   |                   |              |              |              | Co 11015     |              |              |              |              |              |              |              |              |              |              |              |              |              |      |

\*Significant at 5% level,

**Qualifying entries:** Co 11015 (3), Co15006 (1)

**Performance across locations:** The test entry Co 11015 (20.91%) recorded higher juice sucrose than the best standard CoC 671 (20.54%) and had more than 5% improvement over the best standard at three locations. The test entry Co 15006 (19.20%) had more than 5% improvement over the best standard at Kawardha centre.

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**Table 2.4.5 Brix % at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha     | Kolhapur    | Mandya       | Navsari      | Padegaon     | Perumalpalalle | Pravaranagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla   | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1    | Co 11015          | 23.06        | 20.59        | 22.34        | 23.38        | 24.57       | 22.33        | 23.37        | 25.08        | 21.80          | 23.00        | 18.80        | 24.31        | 22.10        | 22.88        | 25.65        | 21.20        | 22.78        |
| 2    | Co 14005          | 21.05        | 20.54        | 22.35        | 20.77        | 23.03       | 22.07        | 21.27        | 23.30        | 21.40          | 21.09        | 18.62        | 22.39        | 22.07        | 22.09        | 24.31        | 21.47        | 21.74        |
| 3    | Co 15005          | 20.67        | 20.45        | 22.11        | 22.53        | 23.30       | 22.20        | 21.27        | 23.45        | 21.37          | 21.55        | 18.31        | 22.46        | 22.10        | 20.5         | 24.65        | 20.50        | 21.71        |
| 4    | Co 15006          | 20.71        | 21.31        | 20.68        | 23.52        | 22.37       | 22.07        | 19.87        | 22.64        | 19.40          | 22.19        | 18.14        | 21.2         | 22.30        | 20.99        | 21.49        | 19.47        | 21.15        |
| 5    | Co 15007          | 22.52        | 19.67        | 22.65        | 22.13        | 23.13       | 22.60        | 19.53        | 22.92        | 20.50          | 21.05        | 17.78        | 22.84        | 21.00        | 20.49        | 24.31        | 20.33        | 21.47        |
| 6    | Co 15009          | 22.73        | 20.61        | 21.45        | 21.10        | 22.43       | 21.13        | 21.27        | 23.32        | 20.77          | 23.34        | 15.43        | 21.41        | 21.80        | 19.66        | 22.32        | 18.73        | 21.09        |
| 7    | Co 15010          | 20.72        | 22.45        | 21.45        | 22.11        | 22.53       | 20.80        | 21.73        | 21.56        | 18.27          | 23.69        | 17.99        | 21.27        | 20.91        | 18.77        | 23.48        | 18.50        | 21.01        |
| 8    | Co 15017          | 22.18        | 21.79        | 22.40        | 20.52        | 23.30       | 22.07        | 22.40        | 22.92        | 20.13          | 21.12        | 18.50        | 23.95        | 21.50        | 20.41        | 25.15        | 20.20        | 21.78        |
| 9    | Co 15021          | 21.88        | 21.31        | 21.04        | 22.29        | 23.00       | 22.13        | 22.10        | 22.44        | 20.73          | 20.79        | 17.98        | 21.11        | 19.51        | 20.30        | 24.81        | 20.97        | 21.40        |
| 10   | CoSnk 15102       | 22.13        | 20.81        | 21.94        | 23.09        | 22.30       | 21.67        | 21.47        | 21.55        | 20.10          | 22.29        | 18.88        | 21.57        | 22.50        | 19.42        | 23.48        | 20.07        | 21.45        |
| 11   | CoN 15071         | 20.41        | 21.55        | 21.64        | 22.02        | 21.43       | 20.20        | 20.70        | 21.80        | 19.80          | 20.69        | 18.24        | 22.3         | 21.03        | 21.25        | 23.09        | 18.30        | 20.90        |
| 12   | PI 15131          | 20.77        | 19.18        | 21.80        | 22.44        | 22.63       | 21.20        | 21.03        | 22.60        | 19.07          | 20.15        | 17.89        | 22.73        | 22.90        | 19.06        | 24.75        | 18.63        | 21.05        |
|      | <b>Stds</b>       |              |              |              |              |             |              |              |              |                |              |              |              |              |              |              |              |              |
| 1    | Co 86032          | 21.6         | 21.65        | 21.47        | 22.67        | 22.67       | 21.00        | 20.97        | 21.64        | 20.57          | 21.55        | 19.2         | 21.27        | 21.01        | 20.66        | 23.58        | 20.60        | 21.38        |
| 2    | CoC 671           | 24.16        | 21.29        | 22.71        | 22.73        | 23.20       | 22.93        | 22.43        | 23.62        | 20.67          | 23.78        | 18.42        | 23.57        | 23.00        | 22.18        | 25.75        | 21.23        | 22.60        |
| 3    | Co 09004          | 21.82        | 19.97        | 21.57        | 22.21        | 23.57       | 22.20        | 21.37        | 23.04        | 20.87          | 23.38        | 19.41        | 23.52        | 22.50        | 23.28        | 25.08        | 20.53        | 22.14        |
|      | <b>Grand mean</b> | <b>21.73</b> | <b>20.88</b> | <b>21.84</b> | <b>22.23</b> | <b>22.9</b> | <b>21.77</b> | <b>21.38</b> | <b>22.79</b> | <b>20.36</b>   | <b>21.98</b> | <b>18.23</b> | <b>22.39</b> | <b>21.75</b> | <b>22.04</b> | <b>24.13</b> | <b>20.05</b> | <b>21.65</b> |
|      | SE                | 0.53         | 0.6          | 0.30         | 0.53         | 0.38        | 0.45         | 0.26         | 0.33         | 0.27           | 0.39         | 0.24         | 0.30         | 0.07         | 0.81         | 0.39         | 0.531        |              |
|      | CD                | 1.53         | 1.74         | 0.86         | 1.50         | 1.11        | 1.30         | 0.76         | 0.94         | 0.78           | 1.15         | 0.70         | 0.88         | 0.21         | 2.36         | 1.13         | 1.51         |              |
|      | CV                | 4.18         | 4.97         | 2.34         | 4.10         | 2.89        | 3.57         | 2.13         | 2.47         | 2.29           | 3.15         | 2.31         | 2.34         | 0.59         | 6.75         | 2.8          | 4.59         |              |

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**Table 2.4.6 Purity % at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha     | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perunallapalle | Pravara     | Pugalur      | Pune         | Rudrur       | Samner       | Sanke shwar  | Thiruvalla   | Mean         |  |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| 1    | Co 11015          | 93.35        | 90.48        | 93.38        | 92.62        | 84.64        | 94.75        | 92.94        | 94.50        | 90.20          | 93.34       | 86.48        | 95.04        | 91.92        | 88.43        | 93.52        | 90.40        | 91.62        |  |
| 2    | Co 14005          | 92.13        | 88.16        | 90.92        | 89.59        | 85.33        | 94.97        | 88.23        | 94.52        | 89.80          | 91.63       | 87.47        | 95.11        | 92.00        | 89.13        | 94.04        | 90.65        | 90.86        |  |
| 3    | Co 15005          | 92.06        | 88.46        | 90.03        | 89.71        | 87.33        | 93.98        | 88.12        | 95.41        | 89.93          | 92.87       | 84.28        | 95.17        | 92.08        | 87.95        | 95.66        | 90.25        | 90.83        |  |
| 4    | Co 15006          | 92.55        | 88.75        | 92.63        | 94.18        | 84.18        | 94.97        | 88.15        | 94.35        | 88.47          | 90.26       | 86.77        | 94.18        | 91.16        | 89.61        | 91.85        | 90.42        | 90.78        |  |
| 5    | Co 15007          | 93.42        | 89.56        | 91.63        | 89.62        | 86.97        | 94.66        | 89.33        | 92.9         | 88.97          | 89.89       | 87.64        | 94.95        | 93.62        | 88.55        | 95.76        | 90.25        | 91.11        |  |
| 6    | Co 15009          | 85.10        | 89.83        | 90.72        | 86.47        | 84.53        | 94.26        | 90.04        | 92.29        | 89.70          | 93.48       | 88.75        | 91.84        | 93.18        | 84.92        | 92.38        | 90.44        | 89.87        |  |
| 7    | Co 15010          | 90.22        | 84.85        | 92.64        | 89.32        | 83.19        | 94.12        | 89.37        | 90.76        | 88.60          | 92.82       | 85.88        | 91.10        | 94.07        | 86.46        | 89.54        | 90.32        | 89.58        |  |
| 8    | Co 15017          | 93.50        | 89.67        | 92.30        | 86.66        | 85.59        | 94.51        | 88.58        | 95.27        | 89.80          | 91.34       | 85.47        | 94.42        | 94.68        | 89.63        | 95.42        | 90.09        | 91.06        |  |
| 9    | Co 15021          | 91.84        | 87.44        | 92.00        | 91.33        | 83.43        | 93.18        | 91.83        | 93.93        | 89.70          | 90.37       | 86.17        | 91.46        | 90.21        | 86.97        | 93.41        | 90.33        | 90.23        |  |
| 10   | CoSnk 15102       | 89.15        | 86.01        | 92.41        | 89.45        | 79.91        | 94.65        | 90.19        | 92.97        | 90.20          | 93.17       | 86.33        | 95.29        | 90.13        | 87.66        | 93.21        | 89.96        | 90.04        |  |
| 11   | CoN 15071         | 90.27        | 84.83        | 91.26        | 87.22        | 82.66        | 95.29        | 93.72        | 94.11        | 90.00          | 92.87       | 87.19        | 92.53        | 92.35        | 88.72        | 93.47        | 90.56        | 90.44        |  |
| 12   | PI 15131          | 87.81        | 90.63        | 92.22        | 88.42        | 79.61        | 94.72        | 87.09        | 93.22        | 88.43          | 93.77       | 86.45        | 94.48        | 91.03        | 89.22        | 92.85        | 90.49        | 90.03        |  |
|      | <b>Stds</b>       |              |              |              |              |              |              |              |              |                |             |              |              |              |              |              |              |              |  |
| 1    | Co 86032          | 89.50        | 88.51        | 92.06        | 88.92        | 85.09        | 94.15        | 93.94        | 93.71        | 90.07          | 93.40       | 87.21        | 93.78        | 93.62        | 89.94        | 91.17        | 90.14        | 90.95        |  |
| 2    | CoC 671           | 88.08        | 86.13        | 94.17        | 90.02        | 86.01        | 94.58        | 90.97        | 94.55        | 89.30          | 93.28       | 86.30        | 94.64        | 92.68        | 89.53        | 92.50        | 90.27        | 90.81        |  |
| 3    | Co 09004          | 92.68        | 92.98        | 91.62        | 89.15        | 85.25        | 95.14        | 89.22        | 91.32        | 89.90          | 94.02       | 84.65        | 94.50        | 90.40        | 87.81        | 92.25        | 90.09        | 90.69        |  |
|      | <b>Grand mean</b> | <b>90.05</b> | <b>88.42</b> | <b>92.00</b> | <b>89.51</b> | <b>84.25</b> | <b>94.53</b> | <b>90.12</b> | <b>93.59</b> | <b>89.54</b>   | <b>92.5</b> | <b>86.47</b> | <b>93.90</b> | <b>92.21</b> | <b>89.09</b> | <b>93.13</b> | <b>90.31</b> | <b>90.60</b> |  |
|      | SE                | 1.87         | 2.35         | 0.99         | 1.16         | 1.43         | 0.46         | 1.23         | 1.24         | 0.25           | 0.61        | 0.24         | 0.36         | 0.23         | 0.93         | 1.55         | 0.14         |              |  |
|      | CD                | N S          | NS           | 2.86         | 3.32         | 4.14         | NS           | 3.57         | 3.58         | 0.73           | 1.78        | 0.70         | 1.05         | 0.67         | 2.72         | 4.48         | NS           |              |  |
|      | CV                | 3.56         | 4.6          | 1.86         | 2.25         | 2.94         | 0.84         | 2.37         | 2.29         | 0.48           | 1.15        | 0.48         | 0.67         | 0.44         | 1.83         | 2.87         | 0.26         |              |  |

**Table 2.4.7 Pol% Cane at harvest**

| S No | Entries           | Coimbatore   | Basmath nagar | Belgaum | Kawar dha    | Kolhapur     | Mandya       | Navsari      | Padegao      | Perunallapalle | Pravara nagar | Pugalur      | Pune         | Rudrur | Samnerwadi | Sanke shwar  | Thiruvalla | Mean         |
|------|-------------------|--------------|---------------|---------|--------------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------|------------|--------------|------------|--------------|
| 1    | Co 11015          | 16.59        |               |         | 15.94        | 16.14        | 16.16        | 16.69        | 17.74        |                |               | 12.63        | 17.66        |        |            | 18.32        |            | 16.43        |
| 2    | Co 14005          | 14.90        |               |         | 13.79        | 15.07        | 16.08        | 14.35        | 16.89        |                |               | 12.63        | 16.05        |        |            | 17.36        |            | 15.24        |
| 3    | Co 15005          | 14.86        |               |         | 14.90        | 15.79        | 15.92        | 14.33        | 17.05        |                |               | 11.95        | 16.39        |        |            | 18.55        |            | 15.53        |
| 4    | Co 15006          | 14.86        |               |         | 16.20        | 14.71        | 15.94        | 13.37        | 16.48        |                |               | 12.19        | 15.37        |        |            | 15.6         |            | 14.97        |
| 5    | Co 15007          | 16.17        |               |         | 14.80        | 15.62        | 16.38        | 13.36        | 16.46        |                |               | 12.09        | 16.73        |        |            | 18.05        |            | 15.52        |
| 6    | Co 15009          | 14.69        |               |         | 13.55        | 14.70        | 15.06        | 14.59        | 16.74        |                |               | 10.60        | 14.63        |        |            | 15.88        |            | 14.49        |
| 7    | Co 15010          | 14.45        |               |         | 14.52        | 14.62        | 14.66        | 14.80        | 14.63        |                |               | 11.96        | 14.92        |        |            | 16.71        |            | 14.59        |
| 8    | Co 15017          | 15.98        |               |         | 13.21        | 15.63        | 15.78        | 15.18        | 16.39        |                |               | 12.25        | 17.34        |        |            | 18.65        |            | 15.60        |
| 9    | Co 15021          | 15.41        |               |         | 14.99        | 14.86        | 15.63        | 15.58        | 15.76        |                |               | 11.98        | 14.38        |        |            | 17.69        |            | 15.14        |
| 10   | CoSnk 15102       | 15.33        |               |         | 15.22        | 13.85        | 15.60        | 14.88        | 15.21        |                |               | 12.59        | 15.55        |        |            | 17.08        |            | 15.03        |
| 11   | CoN 15071         | 14.13        |               |         | 14.31        | 13.64        | 14.61        | 14.87        | 15.37        |                |               | 12.28        | 15.65        |        |            | 17.00        |            | 14.65        |
| 12   | PI 15131          | 14.11        |               |         | 14.72        | 14.17        | 15.32        | 14.02        | 15.94        |                |               | 12.00        | 16.43        |        |            | 17.74        |            | 14.94        |
|      | <b>Stds</b>       |              |               |         |              |              |              |              |              |                |               |              |              |        |            |              |            |              |
| 1    | Co 86032          | 14.80        |               |         | 14.72        | 15.03        | 14.95        | 15.15        | 15.6         |                |               | 12.98        | 15.03        |        |            | 17.28        |            | 15.06        |
| 2    | CoC 671           | 16.28        |               |         | 14.99        | 15.49        | 16.45        | 15.67        | 16.95        |                |               | 12.28        | 16.92        |        |            | 18.45        |            | 15.94        |
| 3    | Co 09004          | 15.50        |               |         | 14.63        | 15.6         | 16.13        | 14.61        | 16.99        |                |               | 12.67        | 16.78        |        |            | 17.45        |            | 15.60        |
|      | <b>Grand mean</b> | <b>15.06</b> |               |         | <b>14.69</b> | <b>15.00</b> | <b>15.65</b> | <b>14.76</b> | <b>16.28</b> |                |               | <b>12.20</b> | <b>15.99</b> |        |            | <b>17.45</b> |            | <b>15.23</b> |
|      | SE                | 0.42         |               |         | 0.48         | 0.41         | 0.33         | 0.27         | 0.33         |                |               | 0.16         | 0.24         |        |            | 0.33         |            |              |
|      | CD                | 1.30         |               |         | 1.37         | 1.18         | 0.95         | 0.79         | 0.96         |                |               | 0.47         | 0.70         |        |            | 0.96         |            |              |
|      | CV                | 3.95         |               |         | 5.67         | 4.7          | 3.65         | 3.22         | 3.51         |                |               | 2.29         | 2.6          |        |            | 3.27         |            |              |

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**Table 2.4.8 Fibre % at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum | Kawardha     | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perunallapalle | Pravara-nagar | Pugshur      | Pune         | Rudrur | Samnerwadi | Sanke-shwar  | Thiruvalla | Mean         |
|------|-------------------|--------------|--------------|---------|--------------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------|------------|--------------|------------|--------------|
| 1    | Co 11015          | 12.95        |              |         | 16.40        | 12.36        | 13.09        | 13.13        | 15.14        |                |               | 12.31        | 13.59        |        |            | 13.59        |            | 13.62        |
| 2    | Co 14005          | 13.17        |              |         | 15.94        | 13.33        | 12.69        | 13.50        | 13.31        |                |               | 12.47        | 14.63        |        |            | 14.04        |            | 13.68        |
| 3    | Co 15005          | 12.10        |              |         | 16.27        | 12.37        | 13.23        | 13.51        | 13.77        |                |               | 12.59        | 13.34        |        |            | 11.33        |            | 13.17        |
| 4    | Co 15006          | 12.54        |              |         | 16.88        | 11.94        | 13.46        | 13.75        | 12.85        |                |               | 12.55        | 13.03        |        |            | 11.01        |            | 13.11        |
| 5    | Co 15007          | 13.13        |              |         | 15.50        | 12.41        | 12.99        | 13.43        | 12.65        |                |               | 12.43        | 12.87        |        |            | 12.47        |            | 13.10        |
| 6    | Co 15009          | 13.93        |              |         | 15.78        | 12.61        | 13.91        | 13.78        | 12.23        |                |               | 12.63        | 15.59        |        |            | 12.95        |            | 13.71        |
| 7    | Co 15010          | 12.75        |              |         | 16.45        | 12.00        | 14.67        | 13.75        | 15.26        |                |               | 12.63        | 13.00        |        |            | 10.33        |            | 13.43        |
| 8    | Co 15017          | 12.95        |              |         | 15.67        | 11.56        | 13.87        | 13.52        | 14.94        |                |               | 12.54        | 13.34        |        |            | 12.26        |            | 13.41        |
| 9    | Co 15021          | 13.37        |              |         | 16.41        | 12.55        | 13.73        | 13.25        | 15.29        |                |               | 12.68        | 15.51        |        |            | 13.67        |            | 14.05        |
| 10   | CoSnk 15102       | 12.09        |              |         | 16.41        | 12.22        | 13.45        | 13.13        | 14.10        |                |               | 12.76        | 14.31        |        |            | 11.96        |            | 13.38        |
| 11   | CoN 15071         | 13.29        |              |         | 15.56        | 13.02        | 13.58        | 13.33        | 15.07        |                |               | 12.77        | 14.15        |        |            | 11.15        |            | 13.55        |
| 12   | PI 15131          | 12.66        |              |         | 15.81        | 11.43        | 13.19        | 13.43        | 14.34        |                |               | 12.42        | 13.51        |        |            | 12.80        |            | 13.29        |
|      | <b>Stds</b>       |              |              |         |              |              |              |              |              |                |               |              |              |        |            |              |            |              |
| 1    | Co 86032          | 13.39        |              |         | 17.00        | 12.06        | 13.87        | 13.08        | 13.06        |                |               | 12.52        | 14.65        |        |            | 9.67         |            | 13.26        |
| 2    | CoC 671           | 13.27        |              |         | 16.76        | 12.37        | 13.70        | 13.20        | 14.12        |                |               | 12.75        | 14.15        |        |            | 12.52        |            | 13.65        |
| 3    | Co 09004          | 13.36        |              |         | 16.17        | 12.34        | 13.17        | 13.35        | 9.10         |                |               | 12.86        | 14.53        |        |            | 14.64        |            | 13.28        |
|      | <b>Grand mean</b> | <b>12.99</b> |              |         | <b>16.20</b> | <b>12.31</b> | <b>13.51</b> | <b>13.41</b> | <b>13.68</b> |                |               | <b>12.59</b> | <b>14.01</b> |        |            | <b>12.29</b> |            | <b>13.44</b> |
|      | SE                | 0.31         |              |         | 0.46         | 0.36         | 0.44         | 0.09         | 1.01         |                |               | 0.19         | 0.18         |        |            | 0.44         |            |              |
|      | CD                | 0.95         |              |         | 1.32         | NS           | NS           | 0.26         | 2.92         |                |               | 0.54         | 0.51         |        |            | 1.26         |            |              |
|      | CV                | 3.39         |              |         | 4.96         | 5.12         | 5.69         | 1.17         | 12.75        |                |               | 2.55         | 2.18         |        |            | 6.13         |            |              |

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**Table 2.4.9 Extraction % at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha     | Kolhapur     | Mandya       | Navsari      | Padgaon      | Perunallapalle | Pravara nagar | Pugshur      | Pune         | Rudrur | Samnerwadi | Sanke shwar  | Thiruvalla   | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------|------------|--------------|--------------|--------------|
| 1    | Co 11015          | 47.45        |              | 56.66        | 58.99        | 48.99        | 61.74        | 61.23        | 48.69        | 60.26          | 50.58         | 53.06        | 52.81        |        |            | 56.01        | 51.29        | <b>54.44</b> |
| 2    | Co 14005          | 47.60        |              | 61.64        | 60.16        | 49.70        | 52.38        | 58.27        | 46.47        | 57.85          | 55.50         | 51.09        | 40.50        |        |            | 57.91        | 54.25        | <b>53.33</b> |
| 3    | Co 15005          | 40.90        |              | 60.56        | 59.33        | 56.07        | 62.92        | 55.03        | 48.78        | 57.93          | 56.86         | 51.13        | 46.86        |        |            | 54.75        | 54.52        | <b>54.28</b> |
| 4    | Co 15006          | 53.82        |              | 61.93        | 57.81        | 55.29        | 63.57        | 57.90        | 44.61        | 61.00          | 54.56         | 52.97        | 49.57        |        |            | 60.17        | 56.15        | <b>56.10</b> |
| 5    | Co 15007          | 53.01        |              | 60.74        | 61.24        | 56.81        | 65.19        | 59.13        | 51.36        | 65.95          | 54.29         | 54.48        | 46.09        |        |            | 59.50        | 57.02        | <b>57.29</b> |
| 6    | Co 15009          | 48.93        |              | 57.40        | 60.56        | 51.90        | 63.91        | 57.07        | 44.61        | 60.45          | 53.48         | 50.88        | 47.14        |        |            | 54.85        | 56.25        | <b>54.42</b> |
| 7    | Co 15010          | 46.29        |              | 68.47        | 58.86        | 54.98        | 59.15        | 58.53        | 52.51        | 64.87          | 53.94         | 52.37        | 44.88        |        |            | 56.56        | 52.73        | <b>55.70</b> |
| 8    | Co 15017          | 48.10        |              | 60.72        | 60.84        | 57.88        | 62.17        | 57.00        | 52.32        | 63.40          | 56.44         | 53.85        | 49.25        |        |            | 56.94        | 55.76        | <b>56.51</b> |
| 9    | Co 15021          | 49.27        |              | 60.10        | 58.98        | 51.61        | 59.21        | 57.73        | 49.06        | 56.31          | 54.51         | 54.14        | 49.76        |        |            | 57.68        | 56.43        | <b>54.98</b> |
| 10   | CoSnk 15102       | 45.55        |              | 58.54        | 57.80        | 48.60        | 56.89        | 57.70        | 39.05        | 55.98          | 58.18         | 52.07        | 42.10        |        |            | 53.41        | 52.64        | <b>52.19</b> |
| 11   | CoN 15071         | 51.09        |              | 58.61        | 59.29        | 54.14        | 65.38        | 59.90        | 54.27        | 64.53          | 56.36         | 54.73        | 48.74        |        |            | 58.67        | 59.21        | <b>57.30</b> |
| 12   | PI 15131          | 50.59        |              | 63.52        | 60.48        | 51.59        | 63.40        | 58.23        | 54.48        | 63.90          | 54.52         | 51.67        | 52.61        |        |            | 57.80        | 56.61        | <b>56.88</b> |
|      | <b>Stds</b>       |              |              |              |              |              |              |              |              |                |               |              |              |        |            |              |              |              |
| 1    | Co 86032          | 48.98        |              | 65.02        | 57.50        | 54.15        | 67.29        | 59.10        | 47.44        | 63.79          | 58.69         | 53.49        | 51.24        |        |            | 58.26        | 55.54        | <b>56.96</b> |
| 2    | CoC 671           | 47.85        |              | 63.40        | 58.09        | 50.54        | 62.67        | 60.53        | 48.27        | 60.66          | 52.08         | 55.45        | 50.74        |        |            | 53.86        | 54.02        | <b>55.24</b> |
| 3    | Co 09004          | 41.88        |              | 61.83        | 59.59        | 57.79        | 66.18        | 57.97        | 50.95        | 60.15          | 49.33         | 55.61        | 46.88        |        |            | 58.84        | 56.81        | <b>55.68</b> |
|      | <b>Grand mean</b> | <b>50.14</b> |              | <b>61.28</b> | <b>59.30</b> | <b>53.34</b> | <b>62.14</b> | <b>58.36</b> | <b>48.86</b> | <b>61.13</b>   | <b>54.62</b>  | <b>53.13</b> | <b>47.95</b> |        |            | <b>57.01</b> | <b>55.28</b> | <b>55.58</b> |
|      | SE                | 4.08         |              | 2.76         | 0.89         | 1.78         | 1.61         | 0.74         | 3.45         | 1.12           | 0.58          | 1.58         | 1.20         |        |            | 1.80         | 1.48         |              |
|      | CD                | N S          |              | 8.01         | 2.53         | 5.15         | 4.65         | 2.15         | NS           | 3.23           | 1.69          | 4.57         | 3.47         |        |            | 5.23         | NS           |              |
|      | CV                | 14.43        |              | 7.81         | 2.58         | 5.78         | 4.48         | 2.2          | 12.24        | 3.16           | 1.85          | 5.14         | 4.33         |        |            | 5.48         | 4.63         |              |

**Table 2.4.10 Number of millable canes(000'/ha) at harvest**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha     | Kolhapur     | Mandya | Navsari       | Padegaon     | Perunallapalle | Pravara nagar | Pugalur       | Pune         | Rudrur       | Samnerwadi    | Sanke shwar | Thiruvalla    | Mean         |  |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------|---------------|--------------|----------------|---------------|---------------|--------------|--------------|---------------|-------------|---------------|--------------|--|
| 1    | Co 11015          | 103.24       | 95.33        | 85.34        | 50.28        | 60.99        |        | 110.21        | 79.51        | 86.49          | 110.98        | 116.58        | 73.06        | 70.16        | 128.00        |             | 107.87        | 91.29        |  |
| 2    | Co 14005          | 116.58       | 101.11       | 92.59        | 56.25        | 79.92        |        | 108.89        | 105.56       | 101.07         | 103.09        | 154.05        | 94.17        | 93.43        | 117.00        |             | 130.40        | 103.86       |  |
| 3    | Co 15005          | 93.06        | 86.67        | 93.44        | 94.03        | 75.35        |        | 98.28         | 86.92        | 84.69          | 83.65         | 137.81        | 80.42        | 110.89       | 101.00        |             | 128.55        | 96.77        |  |
| 4    | Co 15006          | 85.88        | 83.78        | 83.41        | 84.31        | 67.36        |        | 115.54        | 89.41        | 69.38          | 73.98         | 142.91        | 78.61        | 83.95        | 107.33        |             | 94.29         | 90.01        |  |
| 5    | Co 15007          | 81.64        | 80.89        | 69.98        | 82.64        | 66.64        |        | 103.95        | 78.13        | 81.00          | 84.24         | 118.78        | 65.28        | 76.06        | 113.67        |             | 115.35        | 87.02        |  |
| 6    | Co 15009          | 85.75        | 89.56        | 84.26        | 60.14        | 79.06        |        | 112.62        | 94.62        | 61.72          | 104.24        | 122.96        | 84.17        | 78.74        | 119.00        |             | 95.76         | 90.90        |  |
| 7    | Co 15010          | 88.31        | 80.89        | 100.69       | 54.58        | 60.83        |        | 116.52        | 81.83        | 91.34          | 71.11         | 136.07        | 85.97        | 76.03        | 126.00        |             | 124.46        | 92.47        |  |
| 8    | Co 15017          | 105.79       | 101.11       | 91.51        | 66.11        | 67.52        |        | 100.79        | 94.68        | 108.73         | 91.81         | 150.22        | 87.92        | 78.88        | 117.00        |             | 100.69        | 97.34        |  |
| 9    | Co 15021          | 82.95        | 92.44        | 91.67        | 65.28        | 79.40        |        | 101.97        | 73.9         | 73.74          | 84.57         | 152.89        | 80.89        | 67.81        | 110.00        |             | 112.19        | 90.69        |  |
| 10   | CoSnk 15102       | 92.16        | 86.67        | 88.50        | 41.11        | 72.37        |        | 116.98        | 80.15        | 81.80          | 92.50         | 90.02         | 77.64        | 65.74        | 114.33        |             | 110.88        | 86.49        |  |
| 11   | CoN 15071         | 76.81        | 98.22        | 76.54        | 57.64        | 65.88        |        | 119.06        | 74.65        | 74.64          | 108.68        | 122.38        | 71.36        | 62.99        | 113.00        |             | 92.36         | 86.73        |  |
| 12   | PI 15131          | 78.16        | 78.00        | 74.77        | 83.33        | 68.69        |        | 113.25        | 77.78        | 80.35          | 83.65         | 156.02        | 69.86        | 60.25        | 124.33        |             | 98.92         | 89.10        |  |
|      | <b>Stds</b>       |              |              |              |              |              |        |               |              |                |               |               |              |              |               |             |               |              |  |
| 1    | Co 86032          | 86.15        | 92.44        | 101.23       | 55.42        | 58.8         |        | 107.86        | 87.27        | 88.43          | 109.84        | 132.47        | 83.25        | 78.99        | 98.33         |             | 109.41        | 92.13        |  |
| 2    | CoC 671           | 70.76        | 92.44        | 78.40        | 45.28        | 52.89        |        | 99.96         | 71.82        | 65.84          | 99.71         | 124.58        | 68.06        | 70.04        | 104.00        |             | 97.15         | 81.49        |  |
| 3    | Co 09004          | 104.77       | 89.56        | 88.35        | 49.31        | 51.5         |        | 111.86        | 73.50        | 70.09          | 124.66        | 129.46        | 82.67        | 73.76        | 126.00        |             | 103.94        | 91.39        |  |
|      | <b>Grand mean</b> | <b>90.13</b> | <b>89.94</b> | <b>86.71</b> | <b>63.04</b> | <b>67.15</b> |        | <b>109.18</b> | <b>83.31</b> | <b>81.29</b>   | <b>95.07</b>  | <b>132.48</b> | <b>78.89</b> | <b>76.51</b> | <b>109.44</b> |             | <b>108.15</b> | <b>90.81</b> |  |
|      | SE                | 3.91         | 4.58         | 4.36         | 6.24         | 3.14         |        | 3.57          | 2.30         | 8.60           | 1.02          | 8.06          | 4.59         | 8.71         | 5.76          |             | 5.931         |              |  |
|      | CD                | 11.4         | 13.26        | 12.62        | 17.84        | 9.09         |        | 10.33         | 6.66         | 24.91          | 2.96          | 23.36         | 13.29        | 25.24        | 16.77         |             | 16.86         |              |  |
|      | CV                | 7.52         | 8.81         | 8.70         | 17.15        | 8.09         |        | 5.66          | 4.78         | 18.32          | 1.86          | 10.54         | 10.07        | 19.73        | 8.70          |             | 9.50          |              |  |

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**Table 2.4.11 Stalk length (cm) at harvest**

| S No | Entries           | Coimbatore    | Basmathnagar  | Belgaum       | Kawardha      | Kolhapur      | Mandya        | Navsari       | Padegao       | Perunallapalle | Pravaranagar  | Pughar        | Pune          | Rudrur        | Samnerwadi    | Sanke shwar   | Thiruvalla    | Mean          |
|------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1    | Co 11015          | 270.00        | 285.33        | 301.17        | 297.60        | 264.17        | 242.00        | 265.25        | 301.67        | 313.33         | 199.11        | 275.80        | 236.33        | 246.23        | 270.00        | 218.33        | 269.67        | <b>266.00</b> |
| 2    | Co 14005          | 250.00        | 296.67        | 300.50        | 259.80        | 300.00        | 237.33        | 290.38        | 281.67        | 291.67         | 221.00        | 288.67        | 242.78        | 256.87        | 284.33        | 271.67        | 277.33        | <b>271.92</b> |
| 3    | Co 15005          | 260.00        | 277.67        | 264.50        | 330.40        | 285.00        | 224.00        | 253.50        | 250.00        | 309.00         | 213.00        | 259.80        | 214.89        | 239.50        | 304.00        | 236.33        | 268.33        | <b>261.87</b> |
| 4    | Co 15006          | 238.67        | 281.67        | 238.33        | 264.33        | 277.50        | 232.00        | 262.42        | 258.33        | 313.33         | 182.50        | 282.43        | 226.22        | 306.00        | 277.33        | 271.33        | 243.33        | <b>259.73</b> |
| 5    | Co 15007          | 233.33        | 291.33        | 293.50        | 303.87        | 286.33        | 218.00        | 245.45        | 256.67        | 305.00         | 193.50        | 221.58        | 242.33        | 219.60        | 291.33        | 262.00        | 248.33        | <b>257.01</b> |
| 6    | Co 15009          | 272.00        | 285.67        | 292.00        | 288.47        | 294.00        | 218.00        | 249.85        | 311.67        | 283.33         | 186.00        | 272.67        | 279.89        | 265.17        | 315.00        | 292.33        | 255.33        | <b>272.59</b> |
| 7    | Co 15010          | 258.33        | 303.33        | 284.17        | 338.67        | 295.61        | 241.33        | 258.51        | 268.33        | 270.00         | 218.00        | 237.98        | 273.11        | 258.67        | 233.00        | 281.67        | 269.67        | <b>268.15</b> |
| 8    | Co 15017          | 260.00        | 272.33        | 243.50        | 289.87        | 270.44        | 222.67        | 216.77        | 241.67        | 318.33         | 224.00        | 276.62        | 238.22        | 243.00        | 259.66        | 241.67        | 228.33        | <b>252.94</b> |
| 9    | Co 15021          | 276.67        | 305.00        | 301.67        | 292.27        | 266.83        | 246.00        | 223.78        | 288.33        | 373.33         | 223.00        | 276.77        | 257.45        | 229.60        | 277.33        | 237.43        | 241.67        | <b>269.82</b> |
| 10   | CoSnk 15102       | 291.67        | 310.67        | 288.83        | 294.73        | 294.83        | 260.00        | 275.42        | 340.00        | 387.33         | 212.00        | 225.48        | 260.22        | 261.53        | 290.33        | 267.00        | 262.33        | <b>282.65</b> |
| 11   | CoN 15071         | 252.67        | 281.67        | 288.33        | 294.47        | 285.00        | 232.67        | 290.97        | 270.00        | 350.00         | 215.00        | 336.57        | 268.78        | 254.73        | 288.33        | 311.00        | 265.33        | <b>280.35</b> |
| 12   | PI 15131          | 256.67        | 318.67        | 287.50        | 286.40        | 290.00        | 214.00        | 271.97        | 281.67        | 356.67         | 191.00        | 245.15        | 237.22        | 260.20        | 286.33        | 260.00        | 228.67        | <b>267.01</b> |
|      | <b>Stds</b>       |               |               |               |               |               |               |               |               |                |               |               |               |               |               |               |               |               |
| 1    | Co 86032          | 256.00        | 283.33        | 279.33        | 291.33        | 285.83        | 248.00        | 219.55        | 311.67        | 346.67         | 212.00        | 270.05        | 225.11        | 256.67        | 306.00        | 269.00        | 228.67        | <b>268.08</b> |
| 2    | CoC 671           | 276.67        | 318.67        | 264.83        | 329.00        | 259.50        | 239.33        | 218.65        | 265.00        | 300.33         | 205.50        | 268.07        | 242.22        | 251.47        | 289.66        | 241.67        | 230.33        | <b>262.56</b> |
| 3    | Co 09004          | 283.33        | 320.00        | 295.00        | 359.87        | 297.50        | 255.33        | 251.48        | 311.67        | 359.67         | 214.77        | 303.30        | 244.34        | 234.40        | 289.66        | 292.33        | 240.33        | <b>284.56</b> |
|      | <b>Grand mean</b> | <b>262.40</b> | <b>295.47</b> | <b>281.54</b> | <b>301.40</b> | <b>283.50</b> | <b>235.38</b> | <b>252.93</b> | <b>282.56</b> | <b>325.20</b>  | <b>207.35</b> | <b>269.40</b> | <b>245.94</b> | <b>252.24</b> | <b>295.11</b> | <b>263.58</b> | <b>250.51</b> | <b>269.03</b> |
|      | SE                | 15.63         | 8.60          | 10.67         | 7.91          | 8.24          | 5.80          | 7.73          | 9.47          | 5.52           | 2.81          | 13.89         | 7.64          | 2.30          | 15.62         | 9.11          | 10.62         |               |
|      | CD                | NS            | 24.92         | 30.91         | 22.61         | 23.88         | 16.81         | 22.38         | 27.45         | 15.98          | 8.16          | 40.24         | 22.12         | 6.67          | NS            | 26.39         | 30.19         |               |
|      | CV                | 8.47          | 5.05          | 6.56          | 4.54          | 5.04          | 4.27          | 5.29          | 5.80          | 2.94           | 2.35          | 8.93          | 5.38          | 1.58          | 9.52          | 5.99          | 7.34          |               |



**Table 2.4.12 Stalk diameter (cm) at harvest**

| S No | Entries           | Coimbatore  | Basmathnagar | Belgaum     | Kawardha    | Kolhapur    | Mandya      | Navsari     | Padegaon    | Perunallapalle | Pravaranagar | Pugalur     | Pune        | Rudrur      | Samnerwadi  | Sanke shwar | Thiruvalla  | Mean        |
|------|-------------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1    | Co 11015          | 2.88        | 2.92         | 2.43        | 2.92        | 3.04        | 2.87        | 2.52        | 2.80        | 2.83           | 2.50         | 2.68        | 2.93        | 2.86        | 2.53        | 2.57        | 2.59        | <b>2.74</b> |
| 2    | Co 14005          | 2.56        | 2.92         | 2.42        | 3.22        | 3.02        | 2.55        | 2.67        | 2.59        | 2.67           | 2.82         | 2.61        | 2.78        | 2.60        | 2.60        | 2.48        | 2.27        | <b>2.67</b> |
| 3    | Co 15005          | 2.56        | 3.18         | 2.72        | 2.69        | 2.81        | 2.87        | 2.47        | 2.75        | 2.67           | 2.75         | 2.66        | 2.83        | 2.80        | 3.00        | 2.43        | 2.53        | <b>2.73</b> |
| 4    | Co 15006          | 3.03        | 2.89         | 2.72        | 2.74        | 3.06        | 2.99        | 2.54        | 2.85        | 2.57           | 2.72         | 2.60        | 2.87        | 2.85        | 3.03        | 2.52        | 2.46        | <b>2.78</b> |
| 5    | Co 15007          | 2.98        | 3.77         | 2.90        | 2.76        | 3.27        | 3.18        | 2.46        | 3.32        | 3.07           | 2.70         | 2.95        | 3.24        | 3.22        | 2.36        | 2.74        | 2.67        | <b>2.97</b> |
| 6    | Co 15009          | 2.93        | 3.03         | 2.52        | 3.04        | 2.92        | 3.21        | 2.56        | 2.98        | 3.00           | 2.49         | 3.07        | 3.17        | 2.93        | 2.76        | 2.42        | 2.58        | <b>2.85</b> |
| 7    | Co 15010          | 2.78        | 2.92         | 2.88        | 2.94        | 3.07        | 3.16        | 2.52        | 2.83        | 3.10           | 2.65         | 3.10        | 2.97        | 3.15        | 2.93        | 2.53        | 2.51        | <b>2.88</b> |
| 8    | Co 15017          | 2.78        | 2.65         | 2.57        | 3.02        | 3.21        | 2.84        | 2.36        | 2.67        | 2.97           | 2.76         | 2.68        | 2.85        | 2.94        | 2.86        | 2.44        | 2.50        | <b>2.76</b> |
| 9    | Co 15021          | 2.92        | 2.94         | 2.93        | 2.76        | 2.93        | 3.07        | 2.48        | 2.90        | 2.83           | 2.65         | 2.86        | 3.18        | 3.14        | 2.80        | 2.52        | 2.86        | <b>2.86</b> |
| 10   | CoSnk 15102       | 2.58        | 3.09         | 2.42        | 2.69        | 2.77        | 3.05        | 2.71        | 2.77        | 3.07           | 2.65         | 2.68        | 2.88        | 2.80        | 3.23        | 2.57        | 2.47        | <b>2.78</b> |
| 11   | CoN 15071         | 3.33        | 3.01         | 2.83        | 3.11        | 3.14        | 3.28        | 2.75        | 2.83        | 2.97           | 2.66         | 2.28        | 3.14        | 3.03        | 2.86        | 2.74        | 2.57        | <b>2.91</b> |
| 12   | PI 15131          | 2.93        | 3.25         | 3.03        | 2.96        | 3.32        | 3.19        | 2.59        | 3.45        | 3.27           | 2.75         | 2.96        | 3.03        | 2.66        | 2.93        | 3.00        | 2.83        | <b>3.01</b> |
|      | <b>Stds</b>       |             |              |             |             |             |             |             |             |                |              |             |             |             |             |             |             |             |
| 1    | Co 86032          | 2.76        | 3.03         | 2.68        | 3.00        | 3.20        | 3.07        | 2.45        | 2.90        | 2.90           | 2.55         | 2.85        | 2.97        | 2.76        | 2.70        | 2.77        | 2.59        | <b>2.82</b> |
| 2    | CoC 671           | 2.94        | 3.31         | 2.62        | 3.10        | 3.10        | 3.31        | 2.59        | 2.96        | 2.80           | 2.53         | 2.72        | 3.03        | 3.02        | 2.56        | 2.72        | 2.70        | <b>2.88</b> |
| 3    | Co 09004          | 2.52        | 2.97         | 2.60        | 2.73        | 3.00        | 3.03        | 2.48        | 3.06        | 2.83           | 2.39         | 2.67        | 2.91        | 2.80        | 2.80        | 2.57        | 2.51        | <b>2.74</b> |
|      | <b>Grand mean</b> | <b>2.88</b> | <b>3.06</b>  | <b>2.68</b> | <b>2.91</b> | <b>3.06</b> | <b>3.04</b> | <b>2.54</b> | <b>2.91</b> | <b>2.90</b>    | <b>2.63</b>  | <b>2.76</b> | <b>2.99</b> | <b>2.90</b> | <b>2.69</b> | <b>2.60</b> | <b>2.58</b> | <b>2.82</b> |
|      | SE                | 0.12        | 0.14         | 0.08        | 0.05        | 0.11        | 0.07        | 0.03        | 0.04        | 0.05           | 0.03         | 0.11        | 0.04        | 0.08        | 0.10        | 0.06        | 0.10        |             |
|      | CD                | 0.34        | 0.42         | 0.24        | 0.16        | 0.32        | 0.21        | 0.07        | 0.13        | 0.16           | 0.1          | 0.33        | 0.12        | 0.23        | 0.29        | 0.17        | 0.28        |             |
|      | CV                | 7.15        | 8.13         | 5.39        | 3.34        | 6.23        | 4.2         | 1.71        | 2.62        | 3.22           | 2.32         | 7.06        | 2.50        | 4.68        | 6.34        | 3.87        | 6.71        |             |

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**Table 2.4.13 Single cane weight (kg) at harvest**

| S No | Entries           | Coimbatore  | Basmathnagar | Belgaum     | Kawardha    | Kolhapur    | Mandya      | Navsari     | Padegao     | Perunallapalle | Pravara-nagar | Pugalur     | Pune        | Rudrur      | Samnerwadi  | Sanke-shwar | Thiruvalla  | Mean        |  |
|------|-------------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| 1    | Co 11015          | 1.44        | 1.20         | 1.61        | 1.98        | 1.82        | 1.40        | 1.04        | 1.63        | 1.64           | 1.36          | 1.43        | 1.69        | 1.56        | 1.36        | 1.43        | 1.58        | 1.51        |  |
| 2    | Co 14005          | 1.12        | 1.12         | 1.58        | 1.93        | 1.57        | 1.16        | 1.27        | 1.36        | 1.15           | 1.95          | 1.35        | 1.40        | 1.35        | 1.45        | 1.54        | 1.22        | 1.41        |  |
| 3    | Co 15005          | 1.18        | 1.23         | 1.49        | 1.93        | 1.28        | 1.05        | 1.05        | 1.25        | 1.55           | 1.68          | 1.20        | 1.37        | 1.24        | 1.68        | 1.34        | 1.56        | 1.38        |  |
| 4    | Co 15006          | 1.29        | 1.19         | 1.43        | 1.48        | 1.60        | 1.33        | 1.18        | 1.57        | 1.23           | 1.51          | 1.36        | 1.59        | 1.63        | 1.56        | 1.67        | 1.36        | 1.44        |  |
| 5    | Co 15007          | 1.45        | 1.61         | 1.81        | 1.72        | 2.11        | 1.33        | 1.20        | 1.65        | 1.56           | 1.63          | 1.34        | 1.99        | 1.42        | 1.21        | 1.76        | 1.58        | 1.59        |  |
| 6    | Co 15009          | 1.68        | 1.36         | 1.58        | 1.96        | 1.92        | 1.58        | 1.20        | 1.39        | 1.37           | 1.21          | 1.69        | 1.82        | 1.63        | 1.56        | 1.75        | 1.51        | 1.58        |  |
| 7    | Co 15010          | 1.51        | 1.28         | 1.68        | 2.19        | 1.63        | 1.46        | 1.07        | 1.31        | 1.47           | 2.10          | 1.70        | 1.81        | 1.80        | 1.36        | 1.61        | 1.44        | 1.59        |  |
| 8    | Co 15017          | 1.29        | 0.99         | 1.27        | 1.91        | 1.34        | 1.10        | 1.23        | 1.45        | 1.22           | 1.67          | 1.44        | 1.41        | 1.41        | 1.71        | 1.35        | 1.12        | 1.37        |  |
| 9    | Co 15021          | 1.68        | 1.39         | 1.75        | 1.60        | 1.57        | 1.59        | 1.08        | 1.54        | 1.66           | 2.23          | 1.18        | 1.79        | 1.52        | 1.43        | 1.35        | 1.60        | 1.56        |  |
| 10   | CoSnk 15102       | 1.30        | 1.21         | 1.38        | 1.58        | 1.28        | 1.60        | 1.20        | 1.49        | 1.79           | 1.53          | 1.43        | 1.48        | 1.15        | 1.96        | 1.58        | 1.42        | 1.46        |  |
| 11   | CoN 15071         | 1.54        | 1.27         | 1.91        | 2.05        | 1.88        | 1.54        | 1.45        | 1.70        | 1.61           | 1.76          | 1.51        | 2.19        | 1.53        | 1.76        | 2.07        | 1.86        | 1.73        |  |
| 12   | PI 15131          | 1.48        | 1.55         | 2.09        | 1.99        | 2.12        | 1.45        | 1.15        | 1.63        | 2.03           | 1.68          | 1.37        | 1.75        | 1.83        | 1.77        | 2.26        | 1.59        | 1.73        |  |
|      | <b>Stds</b>       |             |              |             |             |             |             |             |             |                |               |             |             |             |             |             |             |             |  |
| 1    | Co 86032          | 1.38        | 1.22         | 1.66        | 1.92        | 1.92        | 1.79        | 1.04        | 1.72        | 1.39           | 1.54          | 1.39        | 1.46        | 1.50        | 1.21        | 1.87        | 1.46        | 1.53        |  |
| 2    | CoC 671           | 1.58        | 1.38         | 1.59        | 2.25        | 1.77        | 1.79        | 1.15        | 1.61        | 1.41           | 1.84          | 1.54        | 1.66        | 1.63        | 1.49        | 1.69        | 1.55        | 1.62        |  |
| 3    | Co 09004          | 1.12        | 1.32         | 1.84        | 2.03        | 1.75        | 1.57        | 1.17        | 1.66        | 1.86           | 1.47          | 1.38        | 1.65        | 1.35        | 1.82        | 2.03        | 1.39        | 1.59        |  |
|      | <b>Grand mean</b> | <b>1.40</b> | <b>1.29</b>  | <b>1.64</b> | <b>1.90</b> | <b>1.70</b> | <b>1.45</b> | <b>1.17</b> | <b>1.53</b> | <b>1.53</b>    | <b>1.67</b>   | <b>1.42</b> | <b>1.67</b> | <b>1.50</b> | <b>1.51</b> | <b>1.69</b> | <b>1.48</b> | <b>1.54</b> |  |
|      | SE                | 0.07        | 0.07         | 0.11        | 0.09        | 0.13        | 0.11        | 0.04        | 0.06        | 0.03           | 0.05          | 0.74        | 0.04        | 0.04        | 0.11        | 0.11        | 0.08        |             |  |
|      | CD                | 0.21        | 0.19         | 0.32        | 0.28        | 0.37        | 0.32        | 0.12        | 0.16        | 0.09           | 0.15          | 0.21        | 0.12        | 0.10        | 0.34        | 0.32        | 0.21        |             |  |
|      | CV                | 8.90        | 9.04         | 11.68       | 8.87        | 12.9        | 13.11       | 6.35        | 6.44        | 3.36           | 5.47          | 8.99        | 4.32        | 4.13        | 13.26       | 11.24       | 8.74        |             |  |

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**Table 2.4.14 CCS % at 10 month**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha | Kolhapur     | Mandya       | Navsari      | Padgaon      | Perunallapalle | Pravara nagar | Pugshur      | Pune         | Rudrur       | Samnerwadi   | Sanke shwar  | Thiruvalla  | Mean         |
|------|-------------------|--------------|--------------|--------------|----------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|
| 1    | Co 11015          | 15.12        |              | 14.52        |          | 13.23        | 13.64        | 13.68        | 15.40        | 12.68          | 14.29         | 11.55        | 13.89        | 13.28        | 13.49        | 15.00        | 10.35       | <b>13.57</b> |
| 2    | Co 14005          | 13.35        |              | 14.79        |          | 12.00        | 13.49        | 11.44        | 14.36        | 12.24          | 13.51         | 11.10        | 13.76        | 12.80        | 11.28        | 12.90        | 11.25       | <b>12.73</b> |
| 3    | Co 15005          | 11.94        |              | 13.17        |          | 11.24        | 14.24        | 11.43        | 14.57        | 12.25          | 12.73         | 9.88         | 13.36        | 12.45        | 10.44        | 12.86        | 9.92        | <b>12.17</b> |
| 4    | Co 15006          | 13.96        |              | 12.36        |          | 10.29        | 13.53        | 11.18        | 13.64        | 11.12          | 14.11         | 10.34        | 12.47        | 12.02        | 11.40        | 10.99        | 9.77        | <b>11.94</b> |
| 5    | Co 15007          | 15.14        |              | 14.22        |          | 11.95        | 13.75        | 11.22        | 14.15        | 11.24          | 13.91         | 10.03        | 13.22        | 11.80        | 11.84        | 13.05        | 9.87        | <b>12.52</b> |
| 6    | Co 15009          | 12.98        |              | 12.18        |          | 10.33        | 12.38        | 10.92        | 12.59        | 10.95          | 14.10         | 9.17         | 10.76        | 10.87        | 8.91         | 11.22        | 9.51        | <b>11.20</b> |
| 7    | Co 15010          | 12.23        |              | 12.54        |          | 10.44        | 12.11        | 9.44         | 13.52        | 10.40          | 14.46         | 10.45        | 11.17        | 10.18        | 9.08         | 10.89        | 9.35        | <b>11.16</b> |
| 8    | Co 15017          | 14.18        |              | 13.28        |          | 11.49        | 13.48        | 12.65        | 14.03        | 11.63          | 12.11         | 10.68        | 13.14        | 11.74        | 9.46         | 14.06        | 9.84        | <b>12.26</b> |
| 9    | Co 15021          | 12.41        |              | 12.49        |          | 10.48        | 13.18        | 11.32        | 12.85        | 11.29          | 12.26         | 10.12        | 11.50        | 10.65        | 10.18        | 10.68        | 9.72        | <b>11.36</b> |
| 10   | CoSnk 15102       | 12.75        |              | 13.67        |          | 10.61        | 13.22        | 12.25        | 13.61        | 11.85          | 13.50         | 10.91        | 12.49        | 12.68        | 9.61         | 13.81        | 9.63        | <b>12.18</b> |
| 11   | CoN 15071         | 14.37        |              | 11.41        |          | 10.79        | 11.82        | 12.55        | 13.37        | 11.29          | 13.25         | 10.26        | 12.05        | 10.22        | 10.35        | 10.88        | 8.51        | <b>11.50</b> |
| 12   | PI 15131          | 13.18        |              | 14.20        |          | 11.96        | 13.53        | 11.73        | 13.93        | 11.39          | 14.17         | 10.50        | 13.60        | 12.92        | 9.40         | 12.74        | 9.73        | <b>12.35</b> |
|      | <b>Stds</b>       |              |              |              |          |              |              |              |              |                |               |              |              |              |              |              |             |              |
| 1    | Co 86032          | 13.05        |              | 12.11        |          | 10.19        | 13.32        | 12.93        | 13.76        | 11.73          | 13.91         | 11.58        | 11.56        | 10.64        | 12.00        | 11.85        | 10.55       | <b>12.08</b> |
| 2    | CoC 671           | 13.89        |              | 14.03        |          | 11.57        | 13.63        | 12.83        | 13.28        | 11.90          | 15.01         | 10.84        | 14.06        | 12.06        | 12.37        | 12.83        | 11.19       | <b>12.82</b> |
| 3    | Co 09004          | 14.73        |              | 14.49        |          | 11.78        | 13.94        | 12.60        | 14.56        | 12.19          | 13.06         | 10.64        | 14.00        | 13.26        | 13.00        | 13.05        | 10.41       | <b>12.97</b> |
|      | <b>Grand mean</b> | <b>13.55</b> |              | <b>13.30</b> |          | <b>11.22</b> | <b>13.28</b> | <b>11.88</b> | <b>13.84</b> | <b>11.61</b>   | <b>13.62</b>  | <b>10.53</b> | <b>12.74</b> | <b>11.84</b> | <b>12.46</b> | <b>12.45</b> | <b>9.97</b> | <b>12.30</b> |
|      | SE                | 0.99         |              | 0.60         |          | 0.38         | 0.35         | 0.19         | 0.42         | 0.24           | 0.27          | 0.12         | 0.24         | 0.09         | 0.30         | 0.36         | 0.35        |              |
|      | CD                | N S          |              | 1.75         |          | 1.11         | 1.00         | 0.54         | 1.22         | 0.69           | 0.78          | 0.34         | 0.69         | 0.25         | 0.89         | 1.03         | 1.00        |              |
|      | CV                | 12.64        |              | 7.86         |          | 5.91         | 4.50         | 2.73         | 5.25         | 3.55           | 3.46          | 1.92         | 3.25         | 1.29         | 4.88         | 4.95         | 6.08        |              |

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**Table 2.4.15 Sucrose %at 10 month**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perunallapalle | Pravara-nagar | Pugshur      | Pune         | Rudrur       | Samnerwadi   | Sanke-shwar  | Thiruvalla   | Mean         |
|------|-------------------|--------------|--------------|--------------|----------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1    | Co 11015          | 21.55        |              | 20.36        |          | 19.44        | 19.24        | 19.42        | 21.89        | 18.26          | 20.20         | 16.73        | 19.33        | 19.07        | 19.50        | 21.18        | 15.16        | <b>19.38</b> |
| 2    | Co 14005          | 19.21        |              | 20.74        |          | 18.13        | 18.94        | 16.68        | 20.39        | 17.70          | 19.32         | 16.01        | 19.19        | 18.30        | 16.48        | 18.65        | 16.44        | <b>18.30</b> |
| 3    | Co 15005          | 17.32        |              | 18.48        |          | 17.34        | 20.01        | 16.70        | 20.73        | 17.69          | 18.14         | 14.74        | 18.63        | 17.84        | 15.39        | 18.42        | 14.55        | <b>17.57</b> |
| 4    | Co 15006          | 19.93        |              | 17.49        |          | 16.20        | 19.05        | 16.13        | 19.33        | 16.16          | 20.15         | 15.08        | 17.47        | 17.34        | 16.51        | 16.01        | 14.33        | <b>17.23</b> |
| 5    | Co 15007          | 21.49        |              | 19.93        |          | 18.12        | 19.25        | 16.13        | 20.08        | 16.30          | 19.54         | 14.52        | 18.44        | 16.93        | 17.16        | 18.60        | 14.47        | <b>17.92</b> |
| 6    | Co 15009          | 18.77        |              | 17.22        |          | 16.01        | 17.38        | 15.75        | 17.85        | 15.82          | 20.20         | 13.58        | 15.37        | 15.74        | 13.60        | 16.19        | 13.94        | <b>16.24</b> |
| 7    | Co 15010          | 17.91        |              | 17.87        |          | 16.23        | 17.16        | 14.11        | 19.16        | 15.12          | 20.64         | 15.26        | 15.91        | 15.47        | 13.66        | 16.02        | 13.71        | <b>16.30</b> |
| 8    | Co 15017          | 20.26        |              | 18.84        |          | 17.58        | 18.90        | 18.07        | 19.89        | 16.81          | 17.34         | 15.66        | 18.34        | 16.88        | 13.95        | 20.23        | 14.4         | <b>17.65</b> |
| 9    | Co 15021          | 17.97        |              | 17.80        |          | 16.36        | 18.53        | 16.05        | 18.38        | 16.33          | 17.41         | 14.80        | 16.34        | 15.72        | 15.06        | 15.87        | 14.24        | <b>16.49</b> |
| 10   | CoSnk 15102       | 18.41        |              | 19.19        |          | 16.51        | 18.55        | 17.17        | 19.38        | 17.10          | 19.39         | 15.94        | 17.41        | 18.41        | 14.25        | 19.59        | 14.09        | <b>17.53</b> |
| 11   | CoN 15071         | 19.41        |              | 16.40        |          | 16.42        | 16.65        | 17.70        | 18.91        | 16.30          | 18.97         | 15.00        | 17.17        | 15.06        | 15.19        | 15.83        | 12.47        | <b>16.53</b> |
| 12   | PI 15131          | 19.00        |              | 20.01        |          | 17.80        | 18.98        | 16.95        | 19.91        | 16.60          | 20.31         | 15.52        | 19.06        | 18.55        | 13.90        | 18.51        | 14.24        | <b>17.81</b> |
|      | <b>Stds</b>       |              |              |              |          |              |              |              |              |                |               |              |              |              |              |              |              |              |
| 1    | Co 86032          | 18.78        |              | 17.26        |          | 15.79        | 18.08        | 18.57        | 19.51        | 16.98          | 19.61         | 16.73        | 16.19        | 15.94        | 17.31        | 17.06        | 15.45        | <b>17.42</b> |
| 2    | CoC 671           | 19.91        |              | 19.66        |          | 17.59        | 19.14        | 18.12        | 18.90        | 17.27          | 21.98         | 15.78        | 19.55        | 17.46        | 17.94        | 18.54        | 16.37        | <b>18.44</b> |
| 3    | Co 09004          | 21.07        |              | 20.25        |          | 17.83        | 19.62        | 18.20        | 20.44        | 17.59          | 19.80         | 15.47        | 19.47        | 19.33        | 18.83        | 18.76        | 15.23        | <b>18.71</b> |
|      | <b>Grand mean</b> | <b>19.40</b> |              | <b>18.77</b> |          | <b>17.16</b> | <b>18.67</b> | <b>17.05</b> | <b>19.65</b> | <b>16.80</b>   | <b>19.49</b>  | <b>15.38</b> | <b>17.86</b> | <b>17.20</b> | <b>15.92</b> | <b>17.96</b> | <b>14.61</b> | <b>17.57</b> |
|      | SE                | 1.04         |              | 0.79         |          | 0.45         | 0.47         | 0.19         | 0.56         | 0.33           | 0.34          | 0.16         | 0.32         | 0.10         | 0.40         | 0.43         | 0.51         |              |
|      | CD                | N S          |              | 2.28         |          | 1.32         | 1.35         | 0.54         | 1.63         | 0.97           | 1.00          | 0.47         | 0.94         | 0.29         | 1.18         | 1.26         | 1.44         |              |
|      | CV                | 9.28         |              | 7.25         |          | 4.59         | 4.34         | 1.90         | 4.95         | 3.45           | 3.07          | 1.82         | 3.14         | 1.00         | 4.44         | 4.18         | 6.02         |              |

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**Table 2.4.16 Brix % at 10 month**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perunallapalle | Pravara-nagar | Pugshur      | Pune         | Rudrur       | Sameerwadi   | Sanke-shwar  | Thiruvalla   | Mean         |
|------|-------------------|--------------|--------------|--------------|----------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1    | Co 11015          | 23.63        |              | 21.53        |          | 22.73        | 20.73        | 21.10        | 23.86        | 20.50          | 21.25         | 19.02        | 20.73        | 21.27        | 22.07        | 22.75        | 17.60        | 21.34        |
| 2    | Co 14005          | 21.53        |              | 21.93        |          | 22.33        | 20.20        | 19.20        | 22.18        | 20.03          | 21.34         | 18.05        | 20.69        | 20.20        | 19.06        | 21.08        | 19.00        | 20.49        |
| 3    | Co 15005          | 19.73        |              | 19.60        |          | 22.20        | 21.33        | 19.30        | 22.65        | 20.00          | 19.85         | 17.78        | 20.08        | 19.80        | 18.09        | 20.42        | 16.97        | 19.84        |
| 4    | Co 15006          | 21.95        |              | 18.90        |          | 21.43        | 20.40        | 18.17        | 20.93        | 18.50          | 22.21         | 17.36        | 19.01        | 19.50        | 18.72        | 18.42        | 16.67        | 19.44        |
| 5    | Co 15007          | 23.38        |              | 21.04        |          | 22.47        | 20.40        | 18.03        | 21.83        | 18.57          | 20.64         | 16.47        | 19.89        | 18.83        | 19.50        | 20.42        | 16.83        | 19.88        |
| 6    | Co 15009          | 21.25        |              | 18.54        |          | 20.67        | 18.53        | 17.73        | 19.34        | 17.90          | 22.41         | 16.15        | 17.45        | 17.87        | 17.09        | 18.25        | 16.20        | 18.53        |
| 7    | Co 15010          | 20.82        |              | 19.61        |          | 21.03        | 18.67        | 17.03        | 20.76        | 17.33          | 22.55         | 17.62        | 17.96        | 19.27        | 16.68        | 18.75        | 15.97        | 18.86        |
| 8    | Co 15017          | 22.37        |              | 20.47        |          | 22.17        | 20.07        | 19.90        | 21.56        | 19.03          | 19.21         | 18.24        | 19.81        | 18.87        | 16.43        | 22.64        | 16.70        | 19.82        |
| 9    | Co 15021          | 20.39        |              | 19.51        |          | 21.37        | 19.80        | 17.40        | 20.30        | 18.50          | 18.95         | 17.13        | 18.34        | 18.53        | 17.81        | 18.97        | 16.57        | 18.83        |
| 10   | CoSnk 15102       | 20.75        |              | 20.36        |          | 21.47        | 19.73        | 18.13        | 21.21        | 19.30          | 21.65         | 18.45        | 18.75        | 21.00        | 16.97        | 21.25        | 16.33        | 19.67        |
| 11   | CoN 15071         | 18.72        |              | 18.33        |          | 20.53        | 17.87        | 18.97        | 20.42        | 18.40          | 21.02         | 17.36        | 19.38        | 17.70        | 17.75        | 18.14        | 14.50        | 18.51        |
| 12   | PI 15131          | 21.35        |              | 21.40        |          | 21.33        | 20.20        | 19.17        | 22.00        | 19.10          | 22.54         | 18.34        | 20.77        | 20.70        | 16.49        | 21.14        | 16.53        | 20.08        |
|      | <b>Stds</b>       |              |              |              |          |              |              |              |              |                |               |              |              |              |              |              |              |              |
| 1    | Co 86032          | 21.06        |              | 18.93        |          | 20.37        | 19.87        | 20.70        | 21.17        | 19.30          | 21.00         | 18.90        | 17.60        | 19.33        | 19.51        | 19.14        | 17.93        | 19.63        |
| 2    | CoC 671           | 22.10        |              | 20.76        |          | 21.97        | 20.40        | 19.47        | 20.68        | 19.70          | 23.41         | 18.08        | 20.92        | 19.80        | 20.42        | 20.97        | 18.97        | 20.55        |
| 3    | Co 09004          | 23.29        |              | 21.25        |          | 22.07        | 21.00        | 20.53        | 21.68        | 19.87          | 21.40         | 17.72        | 20.84        | 22.23        | 21.38        | 20.97        | 17.67        | 20.85        |
|      | <b>Grand mean</b> | <b>21.49</b> |              | <b>20.14</b> |          | <b>21.61</b> | <b>19.95</b> | <b>18.99</b> | <b>21.37</b> | <b>19.07</b>   | <b>21.29</b>  | <b>17.77</b> | <b>19.48</b> | <b>19.66</b> | <b>20.44</b> | <b>20.22</b> | <b>16.96</b> | <b>19.89</b> |
|      | SE                | 0.54         |              | 0.75         |          | 0.33         | 0.47         | 0.12         | 1.16         | 0.36           | 0.36          | 0.18         | 0.33         | 0.13         | 0.40         | 0.38         | 0.58         |              |
|      | CD                | 1.57         |              | 2.19         |          | 0.96         | 1.36         | 0.34         | 3.36         | 1.05           | 1.04          | 0.51         | 0.96         | 0.39         | 1.17         | 1.10         | 1.65         |              |
|      | CV                | 4.35         |              | 6.49         |          | 2.65         | 4.09         | 1.07         | 9.39         | 3.28           | 2.93          | 1.73         | 2.95         | 1.19         | 3.77         | 3.25         | 5.92         |              |

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**Table 2.4.17 Purity % at 10 month**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perunallapalle | Pravara-nagar | Pugalur      | Pune         | Rudrur       | Samnerwadi   | Sanke-shwar  | Thiruvalla   | Mean         |  |
|------|-------------------|--------------|--------------|--------------|----------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| 1    | Co 11015          | 91.17        |              | 94.57        |          | 85.52        | 93.21        | 92.02        | 91.73        | 89.07          | 90.24         | 87.98        | 93.26        | 89.65        | 88.35        | 93.12        | 86.12        | 90.43        |  |
| 2    | Co 14005          | 89.23        |              | 94.57        |          | 81.15        | 94.17        | 86.89        | 91.92        | 88.33          | 90.52         | 88.74        | 92.78        | 90.60        | 86.10        | 88.44        | 86.5         | 89.28        |  |
| 3    | Co 15005          | 87.24        |              | 94.31        |          | 78.04        | 94.15        | 86.53        | 91.52        | 88.47          | 91.23         | 82.94        | 92.8         | 90.10        | 84.55        | 90.22        | 85.78        | 88.42        |  |
| 4    | Co 15006          | 90.80        |              | 92.49        |          | 75.60        | 93.77        | 88.80        | 92.36        | 87.33          | 90.71         | 86.88        | 91.89        | 88.91        | 88.01        | 86.93        | 85.96        | 88.60        |  |
| 5    | Co 15007          | 91.92        |              | 94.69        |          | 80.66        | 94.79        | 89.46        | 92.01        | 87.77          | 94.80         | 88.19        | 92.72        | 89.88        | 88.4         | 91.12        | 85.93        | 90.17        |  |
| 6    | Co 15009          | 88.35        |              | 92.98        |          | 77.42        | 94.22        | 88.83        | 92.30        | 88.40          | 90.17         | 84.13        | 88.10        | 88.11        | 78.66        | 88.81        | 86.02        | 87.61        |  |
| 7    | Co 15010          | 86.02        |              | 91.07        |          | 77.13        | 92.34        | 82.81        | 92.29        | 87.20          | 90.88         | 86.63        | 88.59        | 80.30        | 81.23        | 85.42        | 85.83        | 86.27        |  |
| 8    | Co 15017          | 90.56        |              | 91.98        |          | 79.24        | 94.57        | 90.82        | 92.28        | 88.33          | 90.27         | 85.84        | 92.58        | 89.47        | 83.37        | 89.35        | 86.21        | 88.92        |  |
| 9    | Co 15021          | 88.09        |              | 91.09        |          | 76.58        | 94.00        | 92.24        | 90.49        | 88.27          | 91.89         | 86.4         | 89.10        | 84.81        | 84.22        | 83.60        | 85.97        | 87.62        |  |
| 10   | CoSnk 15102       | 88.67        |              | 94.26        |          | 76.93        | 94.42        | 94.67        | 91.35        | 88.60          | 89.56         | 86.41        | 92.85        | 87.67        | 83.24        | 92.15        | 86.29        | 89.08        |  |
| 11   | CoN 15071         | 79.20        |              | 89.55        |          | 79.98        | 93.63        | 93.33        | 92.63        | 88.57          | 90.29         | 86.43        | 88.56        | 85.07        | 84.77        | 87.28        | 86.04        | 87.52        |  |
| 12   | PI 15131          | 88.99        |              | 93.47        |          | 83.42        | 94.38        | 88.43        | 90.50        | 86.90          | 90.08         | 84.63        | 91.77        | 89.63        | 83.50        | 87.49        | 86.15        | 88.52        |  |
|      | <b>Stds</b>       |              |              |              |          |              |              |              |              |                |               |              |              |              |              |              |              |              |  |
| 1    | Co 86032          | 89.09        |              | 91.00        |          | 77.39        | 94.44        | 89.70        | 92.14        | 88.00          | 93.34         | 88.55        | 91.96        | 82.44        | 88.68        | 89.12        | 86.15        | 88.71        |  |
| 2    | CoC 671           | 90.00        |              | 94.92        |          | 80.09        | 94.23        | 93.08        | 91.20        | 87.67          | 91.28         | 87.23        | 93.45        | 88.18        | 87.74        | 88.41        | 86.31        | 89.56        |  |
| 3    | Co 09004          | 90.42        |              | 95.29        |          | 80.79        | 93.82        | 88.64        | 94.28        | 88.57          | 88.44         | 87.31        | 93.43        | 86.94        | 88.14        | 89.41        | 86.21        | 89.41        |  |
|      | <b>Grand mean</b> | <b>88.65</b> |              | <b>93.08</b> |          | <b>79.33</b> | <b>94.01</b> | <b>89.75</b> | <b>91.93</b> | <b>88.10</b>   | <b>90.91</b>  | <b>86.55</b> | <b>91.59</b> | <b>87.45</b> | <b>88.19</b> | <b>88.72</b> | <b>86.10</b> | <b>88.88</b> |  |
|      | SE                | 1.88         |              | 1.50         |          | 1.21         | 0.55         | 1.05         | 0.60         | 0.27           | 1.29          | 0.29         | 0.27         | 0.55         | 0.71         | 1.24         | 0.23         |              |  |
|      | CD                | 5.46         |              | 4.34         |          | 3.49         | NS           | 3.05         | 1.74         | 0.78           | 3.74          | 0.83         | 0.78         | 1.58         | 2.07         | 3.58         | NS           |              |  |
|      | CV                | 3.66         |              | 2.79         |          | 2.63         | 1.00         | 2.03         | 1.13         | 0.53           | 2.46          | 0.58         | 0.51         | 1.08         | 1.44         | 2.41         | 0.46         |              |  |

**Table 2.4.18 Pol % Cane at 10 month**

| S No | Entries           | Navsari      | Padeg aon    | Pugalu r     | Sanke shwar  | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|
| 1    | Co 11015          | 14.95        | 16.43        | 6.42         | 16.38        | <b>13.55</b> |
| 2    | Co 14005          | 12.78        | 15.63        | 12.47        | 14.41        | <b>13.82</b> |
| 3    | Co 15005          | 12.80        | 15.89        | 11.49        | 14.41        | <b>13.65</b> |
| 4    | Co 15006          | 12.32        | 15.12        | 11.76        | 12.71        | <b>12.98</b> |
| 5    | Co 15007          | 12.37        | 15.75        | 11.31        | 14.63        | <b>13.52</b> |
| 6    | Co 15009          | 12.03        | 14.05        | 10.58        | 12.46        | <b>12.28</b> |
| 7    | Co 15010          | 10.77        | 15.03        | 11.88        | 12.60        | <b>12.57</b> |
| 8    | Co 15017          | 13.84        | 14.92        | 12.17        | 15.79        | <b>14.18</b> |
| 9    | Co 15021          | 12.34        | 13.79        | 11.52        | 12.10        | <b>12.44</b> |
| 10   | CoSnk 15102       | 13.21        | 15.05        | 12.44        | 15.18        | <b>13.97</b> |
| 11   | CoN 15071         | 13.61        | 14.65        | 11.67        | 12.35        | <b>13.07</b> |
| 12   | PI 15131          | 13.00        | 15.28        | 12.09        | 14.23        | <b>13.65</b> |
|      | <b>Stds</b>       |              |              |              |              |              |
| 1    | Co 86032          | 14.30        | 15.22        | 13.00        | 13.44        | <b>13.99</b> |
| 2    | CoC 671           | 13.93        | 14.73        | 12.25        | 14.35        | <b>13.82</b> |
| 3    | Co 09004          | 13.98        | 15.73        | 12.01        | 14.41        | <b>14.03</b> |
|      | <b>Grand mean</b> | <b>13.08</b> | <b>15.15</b> | <b>11.53</b> | <b>13.96</b> | <b>13.43</b> |
|      | SE                | 0.15         | 0.44         | 0.15         | 0.31         |              |
|      | CD                | 0.42         | 1.26         | 0.43         | 0.90         |              |
|      | CV                | 1.93         | 4.98         | 2.23         | 3.85         |              |

**Table 2.4.19 Fibre % at 10 month**

| S No | Entries           | Navsari      | Padeg aon    | Pugalu r     | Sanke shwar  | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|
| 1    | Co 11015          | 13.01        | 14.93        | 12.16        | 12.67        | <b>13.19</b> |
| 2    | Co 14005          | 13.39        | 13.31        | 12.13        | 12.74        | <b>12.89</b> |
| 3    | Co 15005          | 13.37        | 13.33        | 12.05        | 11.74        | <b>12.62</b> |
| 4    | Co 15006          | 13.63        | 11.79        | 12.04        | 10.66        | <b>12.03</b> |
| 5    | Co 15007          | 13.33        | 11.57        | 12.11        | 11.33        | <b>12.09</b> |
| 6    | Co 15009          | 13.64        | 11.29        | 12.08        | 13.05        | <b>12.52</b> |
| 7    | Co 15010          | 13.67        | 11.53        | 12.17        | 11.34        | <b>12.18</b> |
| 8    | Co 15017          | 13.41        | 14.97        | 12.26        | 11.92        | <b>13.14</b> |
| 9    | Co 15021          | 13.12        | 14.94        | 12.12        | 13.67        | <b>13.46</b> |
| 10   | CoSnk 15102       | 13.07        | 12.31        | 12.00        | 12.49        | <b>12.47</b> |
| 11   | CoN 15071         | 13.13        | 12.54        | 12.21        | 11.99        | <b>12.47</b> |
| 12   | PI 15131          | 13.32        | 13.25        | 12.08        | 13.06        | <b>12.93</b> |
|      | <b>Stds</b>       |              |              |              |              |              |
| 1    | Co 86032          | 12.97        | 11.97        | 12.31        | 11.22        | <b>12.12</b> |
| 2    | CoC 671           | 13.12        | 12.07        | 12.37        | 12.63        | <b>12.55</b> |
| 3    | Co 09004          | 13.18        | 13.05        | 12.36        | 13.12        | <b>12.93</b> |
|      | <b>Grand mean</b> | <b>13.29</b> | <b>12.86</b> | <b>12.16</b> | <b>12.24</b> | <b>12.64</b> |
|      | SE                | 0.09         | 0.48         | 0.12         | 0.50         |              |
|      | CD                | 0.26         | 1.38         | 0.36         | 1.46         |              |
|      | CV                | 1.16         | 6.40         | 1.75         | 7.13         |              |

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**Table 2.4.20 Extraction % at 10 month**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha | Kolhapur     | Mandya       | Navsari      | Padegaon     | Perunallapalle | Pravaranagar | Pugalur      | Pune | Rudrur | Samnerwadi | Sanke shwar  | Thiruvalla   | Mean         |  |
|------|-------------------|--------------|--------------|--------------|----------|--------------|--------------|--------------|--------------|----------------|--------------|--------------|------|--------|------------|--------------|--------------|--------------|--|
| 1    | Co 11015          | 52.48        |              | 56.52        |          | 54.40        | 46.95        | 56.77        | 52.89        | 64.18          | 41.37        | 51.62        |      |        |            | 55.87        | 58.40        | 53.77        |  |
| 2    | Co 14005          | 45.14        |              | 62.39        |          | 50.88        | 48.44        | 56.90        | 40.98        | 44.70          | 45.63        | 52.02        |      |        |            | 56.12        | 54.16        | 50.67        |  |
| 3    | Co 15005          | 49.63        |              | 60.56        |          | 59.02        | 50.17        | 53.07        | 48.31        | 62.78          | 48.39        | 50.47        |      |        |            | 58.79        | 58.68        | 54.53        |  |
| 4    | Co 15006          | 49.90        |              | 63.81        |          | 62.23        | 54.08        | 54.60        | 52.73        | 56.67          | 43.43        | 49.67        |      |        |            | 59.54        | 61.47        | 55.28        |  |
| 5    | Co 15007          | 47.14        |              | 59.00        |          | 58.88        | 58.62        | 56.00        | 58.02        | 60.10          | 44.52        | 50.70        |      |        |            | 59.52        | 59.93        | 55.68        |  |
| 6    | Co 15009          | 44.77        |              | 63.44        |          | 54.53        | 56.68        | 54.00        | 43.65        | 60.05          | 42.8         | 51.21        |      |        |            | 54.50        | 59.34        | 53.18        |  |
| 7    | Co 15010          | 51.96        |              | 61.58        |          | 54.14        | 54.85        | 55.53        | 44.22        | 68.90          | 45.52        | 50.04        |      |        |            | 57.29        | 62.32        | 55.12        |  |
| 8    | Co 15017          | 50.96        |              | 57.07        |          | 60.94        | 54.87        | 54.33        | 59.58        | 56.06          | 44.94        | 52.27        |      |        |            | 55.70        | 60.47        | 55.20        |  |
| 9    | Co 15021          | 47.94        |              | 61.82        |          | 53.92        | 51.01        | 54.00        | 47.44        | 65.00          | 44.34        | 52.65        |      |        |            | 54.30        | 58.39        | 53.71        |  |
| 10   | CoSnk 15102       | 38.16        |              | 57.52        |          | 54.41        | 49.54        | 53.87        | 38.16        | 61.45          | 47.03        | 51.10        |      |        |            | 53.20        | 56.35        | 50.98        |  |
| 11   | CoN 15071         | 47.57        |              | 64.56        |          | 57.92        | 54.57        | 56.60        | 49.92        | 58.03          | 46.52        | 52.08        |      |        |            | 58.88        | 58.76        | 55.04        |  |
| 12   | PI 15131          | 51.07        |              | 65.43        |          | 52.89        | 53.88        | 53.90        | 57.30        | 52.59          | 44.28        | 50.39        |      |        |            | 56.68        | 57.83        | 54.20        |  |
|      | <b>Stds</b>       |              |              |              |          |              |              |              |              |                |              |              |      |        |            |              |              |              |  |
| 1    | Co 86032          | 48.75        |              | 62.64        |          | 56.29        | 55.62        | 54.67        | 52.82        | 53.60          | 47.69        | 52.64        |      |        |            | 60.58        | 57.01        | 54.76        |  |
| 2    | CoC 671           | 49.24        |              | 63.26        |          | 54.00        | 54.83        | 55.37        | 49.45        | 58.42          | 47.73        | 53.72        |      |        |            | 54.58        | 56.06        | 54.24        |  |
| 3    | Co 09004          | 49.77        |              | 64.38        |          | 58.50        | 54.16        | 55.20        | 53.16        | 66.52          | 41.10        | 52.23        |      |        |            | 59.18        | 59.46        | 55.79        |  |
|      | <b>Grand mean</b> | <b>48.30</b> |              | <b>61.60</b> |          | <b>56.20</b> | <b>53.22</b> | <b>54.99</b> | <b>49.91</b> | <b>59.27</b>   | <b>44.75</b> | <b>51.52</b> |      |        |            | <b>56.98</b> | <b>58.58</b> | <b>54.12</b> |  |
|      | SE                | 5.57         |              | 1.84         |          | 1.56         | 1.25         | 0.81         | 2.64         | 3.55           | 0.62         | 1.77         |      |        |            | 1.18         | 2.21         |              |  |
|      | CD                | N S          |              | 5.32         |          | 4.51         | 3.61         | 2.35         | 7.65         | 10.30          | 1.80         | 5.14         |      |        |            | 3.42         | NS           |              |  |
|      | CV                | 19.14        |              | 5.16         |          | 4.80         | 4.05         | 2.56         | 9.16         | 10.39          | 2.40         | 5.96         |      |        |            | 3.58         | 6.54         |              |  |



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**Table 2.4.21 NMC (000/ha) at 10 month**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha | Kolhapur | Mandya       | Navsari       | Padegaon     | Perunallapalle | Pravarangar  | Pugalur       | Pune | Rudrur | Sameerwadi    | Sanke shwar  | Thiruvalla    | Mean          |  |
|------|-------------------|--------------|--------------|--------------|----------|----------|--------------|---------------|--------------|----------------|--------------|---------------|------|--------|---------------|--------------|---------------|---------------|--|
| 1    | Co 11015          | 104.11       |              | 85.88        |          |          | 76.11        | 129.76        | 80.71        | 96.17          | 114.18       | 131.43        |      |        | 128.00        | 60.16        | 109.80        | <b>101.48</b> |  |
| 2    | Co 14005          | 114.06       |              | 93.44        |          |          | 85.00        | 121.50        | 106.62       | 112.81         | 106.51       | 171.45        |      |        | 117.33        | 86.91        | 133.10        | <b>113.52</b> |  |
| 3    | Co 15005          | 114.58       |              | 93.44        |          |          | 71.32        | 120.88        | 87.76        | 94.09          | 87.46        | 151.61        |      |        | 101.00        | 73.77        | 132.64        | <b>102.60</b> |  |
| 4    | Co 15006          | 91.20        |              | 84.03        |          |          | 85.97        | 119.87        | 90.91        | 95.94          | 78.19        | 163.33        |      |        | 108.00        | 71.97        | 96.53         | <b>98.72</b>  |  |
| 5    | Co 15007          | 87.62        |              | 70.60        |          |          | 65.52        | 122.22        | 80.53        | 90.40          | 87.04        | 129.11        |      |        | 113.67        | 69.61        | 118.60        | <b>94.08</b>  |  |
| 6    | Co 15009          | 84.43        |              | 84.26        |          |          | 58.54        | 115.53        | 95.61        | 98.56          | 107.99       | 137.81        |      |        | 119.00        | 70.02        | 96.91         | <b>97.15</b>  |  |
| 7    | Co 15010          | 98.77        |              | 102.31       |          |          | 83.47        | 121.97        | 83.23        | 101.49         | 74.53        | 156.14        |      |        | 126.00        | 75.36        | 125.15        | <b>104.40</b> |  |
| 8    | Co 15017          | 110.19       |              | 92.98        |          |          | 78.33        | 113.60        | 96.08        | 120.81         | 95.99        | 166.46        |      |        | 117.67        | 78.85        | 102.39        | <b>106.67</b> |  |
| 9    | Co 15021          | 87.04        |              | 91.67        |          |          | 83.96        | 114.56        | 74.68        | 81.93          | 87.55        | 172.96        |      |        | 110.00        | 74.23        | 113.42        | <b>99.27</b>  |  |
| 10   | CoSnk 15102       | 90.39        |              | 89.20        |          |          | 78.82        | 120.80        | 80.95        | 90.94          | 96.92        | 103.59        |      |        | 113.33        | 74.79        | 115.04        | <b>95.89</b>  |  |
| 11   | CoN 15071         | 76.45        |              | 76.54        |          |          | 79.24        | 132.32        | 75.85        | 82.93          | 111.77       | 138.16        |      |        | 112.67        | 78.85        | 95.22         | <b>96.36</b>  |  |
| 12   | PI 15131          | 82.99        |              | 74.77        |          |          | 75.63        | 121.26        | 79.51        | 88.94          | 89.76        | 175.51        |      |        | 124.00        | 55.39        | 101.31        | <b>97.19</b>  |  |
|      | <b>Stds</b>       |              |              |              |          |          |              |               |              |                |              |               |      |        |               |              |               |               |  |
| 1    | Co 86032          | 84.20        |              | 102.01       |          |          | 81.96        | 114.90        | 89.27        | 99.72          | 113.97       | 146.16        |      |        | 99.00         | 73.30        | 111.03        | <b>101.41</b> |  |
| 2    | CoC 671           | 67.53        |              | 78.40        |          |          | 61.32        | 111.19        | 73.48        | 83.01          | 103.65       | 140.01        |      |        | 104.00        | 55.18        | 99.85         | <b>88.87</b>  |  |
| 3    | Co 09004          | 110.65       |              | 88.35        |          |          | 72.29        | 114.26        | 85.37        | 80.47          | 127.63       | 146.04        |      |        | 116.00        | 61.81        | 104.94        | <b>100.71</b> |  |
|      | <b>Grand mean</b> | <b>93.61</b> |              | <b>87.19</b> |          |          | <b>75.83</b> | <b>119.64</b> | <b>85.37</b> | <b>94.55</b>   | <b>98.87</b> | <b>148.65</b> |      |        | <b>113.98</b> | <b>70.68</b> | <b>110.40</b> | <b>99.89</b>  |  |
|      | SE                | 7.68         |              | 4.55         |          |          | 3.57         | 3.62          | 2.29         | 2.05           | 1.06         | 8.89          |      |        | 5.40          | 2.99         | 6.18          |               |  |
|      | CD                | 22.35        |              | 13.20        |          |          | 10.34        | 10.48         | 6.65         | 5.93           | 3.08         | 25.74         |      |        | 15.73         | 8.67         | 17.56         |               |  |
|      | CV                | 14.20        |              | 9.05         |          |          | 8.16         | 5.24          | 4.66         | 3.75           | 1.86         | 10.35         |      |        | 8.21          | 7.34         | 9.69          |               |  |

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**Table 2.4.22 Stalk length (cm) at 10 month**

| S No | Entries           | Coimbatore    | Basmathnagar | Belgaum       | Kawardha | Kolhapur      | Mandya        | Navsari       | Padegaon      | Perunallapalle | Pravarangar   | Pugalur       | Pune          | Rudrur | Samnerwadi    | Sanke shwar   | Thiruvalla    | Mean          |
|------|-------------------|---------------|--------------|---------------|----------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------|---------------|---------------|---------------|---------------|
| 1    | Co 11015          | 263.33        |              | 278.00        |          | 254.50        | 235.33        | 228.00        | 250.00        | 296.67         | 178.00        | 273.90        | 192.33        |        | 250.00        | 192.00        | 252.33        | <b>241.88</b> |
| 2    | Co 14005          | 219.00        |              | 264.17        |          | 285.00        | 230.00        | 245.00        | 230.00        | 271.67         | 181.50        | 252.97        | 212.56        |        | 264.33        | 236.00        | 264.67        | <b>242.84</b> |
| 3    | Co 15005          | 241.67        |              | 253.83        |          | 258.00        | 195.33        | 209.00        | 216.70        | 297.00         | 197.00        | 229.73        | 194.67        |        | 284.00        | 218.00        | 252.33        | <b>234.40</b> |
| 4    | Co 15006          | 223.33        |              | 243.67        |          | 266.67        | 226.67        | 228.33        | 226.70        | 297.67         | 168.50        | 248.57        | 206.22        |        | 257.33        | 252.67        | 235.67        | <b>237.08</b> |
| 5    | Co 15007          | 205.00        |              | 260.33        |          | 272.11        | 206.00        | 212.67        | 223.30        | 287.67         | 179.50        | 199.33        | 222.67        |        | 271.33        | 228.00        | 235.00        | <b>230.99</b> |
| 6    | Co 15009          | 258.33        |              | 266.67        |          | 269.94        | 205.33        | 212.67        | 263.30        | 276.67         | 169.50        | 285.85        | 258.56        |        | 295.00        | 251.67        | 253.33        | <b>251.29</b> |
| 7    | Co 15010          | 250.00        |              | 260.67        |          | 282.67        | 232.00        | 217.33        | 216.70        | 259.67         | 197.00        | 216.78        | 238.45        |        | 213.00        | 240.33        | 264.66        | <b>237.63</b> |
| 8    | Co 15017          | 240.00        |              | 243.33        |          | 232.50        | 211.33        | 185.33        | 215.00        | 291.67         | 200.00        | 246.88        | 217.89        |        | 239.66        | 199.67        | 218.34        | <b>226.28</b> |
| 9    | Co 15021          | 251.67        |              | 273.33        |          | 248.33        | 232.00        | 174.67        | 238.30        | 350.33         | 208.00        | 255.00        | 222.78        |        | 257.33        | 205.33        | 233.34        | <b>242.34</b> |
| 10   | CoSnk 15102       | 258.33        |              | 270.00        |          | 268.83        | 222.67        | 258.67        | 275.00        | 357.00         | 193.00        | 238.83        | 248.44        |        | 270.33        | 239.33        | 242.66        | <b>257.16</b> |
| 11   | CoN 15071         | 225.00        |              | 288.33        |          | 282.00        | 227.33        | 253.67        | 233.30        | 313.00         | 203.50        | 315.33        | 240.22        |        | 268.33        | 255.00        | 253.33        | <b>258.33</b> |
| 12   | PI 15131          | 230.00        |              | 292.83        |          | 282.50        | 204.67        | 238.67        | 248.30        | 312.00         | 173.00        | 253.83        | 212.56        |        | 266.33        | 228.33        | 217.66        | <b>243.13</b> |
|      | <b>Stds</b>       |               |              |               |          |               |               |               |               |                |               |               |               |        |               |               |               |               |
| 1    | Co 86032          | 241.67        |              | 269.50        |          | 277.17        | 243.33        | 206.67        | 263.30        | 306.67         | 201.50        | 245.37        | 201.89        |        | 286.00        | 242.67        | 222.66        | <b>246.80</b> |
| 2    | CoC 671           | 258.33        |              | 248.83        |          | 247.50        | 230.67        | 197.33        | 228.30        | 286.00         | 190.00        | 248.63        | 205.78        |        | 269.66        | 215.67        | 226.34        | <b>234.85</b> |
| 3    | Co 09004          | 261.67        |              | 290.17        |          | 288.17        | 241.33        | 227.00        | 261.70        | 340.00         | 185.66        | 270.17        | 231.67        |        | 269.66        | 256.00        | 224.34        | <b>257.50</b> |
|      | <b>Grand mean</b> | <b>241.82</b> |              | <b>266.91</b> |          | <b>267.73</b> | <b>222.93</b> | <b>219.67</b> | <b>239.30</b> | <b>302.91</b>  | <b>188.37</b> | <b>252.08</b> | <b>220.44</b> |        | <b>275.11</b> | <b>211.22</b> | <b>239.78</b> | <b>242.17</b> |
|      | SE                | 13.69         |              | 8.54          |          | 8.88          | 4.30          | 5.67          | 7.02          | 8.78           | 2.02          | 11.60         | 7.87          |        | 15.62         | 7.58          | 13.68         |               |
|      | CD                | N S           |              | 24.75         |          | 25.72         | 12.46         | 16.41         | 20.35         | 25.43          | 5.85          | 33.60         | 22.79         |        | NS            | 21.97         | NS            |               |
|      | CV                | 9.81          |              | 5.54          |          | 5.74          | 3.34          | 4.47          | 5.08          | 5.02           | 1.85          | 7.97          | 6.18          |        | 10.24         | 6.22          | 9.88          |               |

**Table 2.4.23 Stalk diameter (cm) at 10 month**

| S No | Entries           | Coimbatore  | Basmathnagar | Belgaum     | Kawardha | Kolhapur    | Mandya      | Navsari     | Padegao     | Perunallapalle | Pravara     | Pugalur     | Pune        | Rudrur | Samner      | Sanke shwar | Thiruvalla  | Mean        |
|------|-------------------|-------------|--------------|-------------|----------|-------------|-------------|-------------|-------------|----------------|-------------|-------------|-------------|--------|-------------|-------------|-------------|-------------|
| 1    | Co 11015          | 2.91        |              | 2.27        |          | 2.97        | 2.71        | 2.42        | 2.59        | 2.73           | 2.25        | 2.61        | 2.99        |        | 2.30        | 2.67        | 2.33        | <b>2.60</b> |
| 2    | Co 14005          | 2.53        |              | 2.37        |          | 2.59        | 2.47        | 2.55        | 2.38        | 2.57           | 2.65        | 2.53        | 2.81        |        | 2.33        | 2.51        | 2.04        | <b>2.49</b> |
| 3    | Co 15005          | 2.59        |              | 2.63        |          | 2.64        | 2.80        | 2.43        | 2.49        | 2.70           | 2.60        | 2.54        | 3.01        |        | 2.74        | 2.65        | 2.45        | <b>2.64</b> |
| 4    | Co 15006          | 3.05        |              | 2.60        |          | 2.75        | 2.85        | 2.45        | 2.49        | 2.40           | 2.62        | 2.48        | 2.91        |        | 2.79        | 2.65        | 2.31        | <b>2.64</b> |
| 5    | Co 15007          | 2.99        |              | 2.53        |          | 3.20        | 3.01        | 2.37        | 3.04        | 3.03           | 2.58        | 2.89        | 3.12        |        | 2.09        | 2.69        | 2.62        | <b>2.78</b> |
| 6    | Co 15009          | 2.93        |              | 2.48        |          | 2.69        | 3.02        | 2.42        | 2.62        | 2.87           | 2.44        | 2.92        | 3.17        |        | 2.51        | 2.43        | 2.48        | <b>2.69</b> |
| 7    | Co 15010          | 3.13        |              | 2.68        |          | 2.64        | 3.09        | 2.45        | 2.43        | 2.93           | 2.58        | 3.02        | 3.12        |        | 2.67        | 2.67        | 2.37        | <b>2.75</b> |
| 8    | Co 15017          | 2.80        |              | 2.58        |          | 2.73        | 2.73        | 2.32        | 2.43        | 2.70           | 2.59        | 2.66        | 2.93        |        | 2.61        | 2.59        | 2.44        | <b>2.62</b> |
| 9    | Co 15021          | 2.73        |              | 2.38        |          | 2.85        | 2.99        | 2.43        | 2.51        | 2.70           | 2.51        | 2.84        | 2.91        |        | 2.54        | 2.61        | 2.76        | <b>2.67</b> |
| 10   | CoSnk 15102       | 2.56        |              | 2.37        |          | 2.55        | 2.97        | 2.56        | 2.46        | 2.80           | 2.57        | 2.61        | 2.88        |        | 3.00        | 2.56        | 2.11        | <b>2.62</b> |
| 11   | CoN 15071         | 3.29        |              | 2.60        |          | 2.95        | 3.01        | 2.63        | 2.49        | 2.73           | 2.51        | 2.27        | 3.13        |        | 2.63        | 2.74        | 2.44        | <b>2.72</b> |
| 12   | PI 15131          | 2.99        |              | 2.73        |          | 3.25        | 3.10        | 2.43        | 3.17        | 2.90           | 2.60        | 2.85        | 2.99        |        | 2.66        | 2.80        | 2.60        | <b>2.85</b> |
|      | <b>Stds</b>       |             |              |             |          |             |             |             |             |                |             |             |             |        |             |             |             |             |
| 1    | Co 86032          | 3.02        |              | 2.53        |          | 3.05        | 3.01        | 2.38        | 2.56        | 2.70           | 2.48        | 2.72        | 2.91        |        | 2.46        | 2.96        | 2.42        | <b>2.71</b> |
| 2    | CoC 671           | 2.96        |              | 2.60        |          | 2.95        | 3.12        | 2.53        | 2.59        | 2.63           | 2.50        | 2.58        | 3.02        |        | 2.33        | 2.81        | 2.52        | <b>2.70</b> |
| 3    | Co 09004          | 2.70        |              | 2.57        |          | 2.86        | 2.91        | 2.43        | 2.77        | 2.67           | 2.42        | 2.61        | 2.92        |        | 2.57        | 2.66        | 2.29        | <b>2.64</b> |
|      | <b>Grand mean</b> | <b>2.88</b> |              | <b>2.53</b> |          | <b>2.84</b> | <b>2.92</b> | <b>2.45</b> | <b>2.60</b> | <b>2.74</b>    | <b>2.52</b> | <b>2.68</b> | <b>2.99</b> |        | <b>2.45</b> | <b>2.67</b> | <b>2.41</b> | <b>2.67</b> |
|      | SE                | 0.14        |              | 0.10        |          | 0.09        | 0.07        | 0.03        | 0.05        | 0.08           | 0.02        | 0.11        | 0.07        |        | 0.10        | 0.05        | 0.12        |             |
|      | CD                | 0.40        |              | 0.29        |          | 0.25        | 0.20        | 0.08        | 0.16        | 0.25           | 0.06        | 0.32        | 0.2         |        | 0.29        | 0.13        | 0.30        |             |
|      | CV                | 8.26        |              | 6.95        |          | 5.25        | 4.08        | 1.86        | 3.59        | 5.37           | 1.42        | 7.06        | 4.07        |        | 6.8         | 3.02        | 7.60        |             |

**Table 2.4.24 Single cane weight (kg) at 10 month**

| S No | Entries           | Coimbatore  | Basmathnagar | Belgaum     | Kawardha | Kolhapur    | Mandya      | Navsari     | Padegao     | Perunallapalle | Pravarangar | Pugalur     | Pune        | Rudrur | Sameerwadi  | Sanke shwar | Thiruvalla  | Mean        |  |
|------|-------------------|-------------|--------------|-------------|----------|-------------|-------------|-------------|-------------|----------------|-------------|-------------|-------------|--------|-------------|-------------|-------------|-------------|--|
| 1    | Co 11015          | 1.61        |              | 1.37        |          | 1.69        | 1.21        | 0.98        | 1.60        | 1.40           | 0.92        | 1.33        | 1.48        |        | 1.35        | 1.28        | 1.40        | 1.36        |  |
| 2    | Co 14005          | 0.87        |              | 1.37        |          | 1.48        | 0.99        | 1.15        | 1.42        | 0.94           | 1.76        | 1.32        | 1.35        |        | 1.39        | 1.49        | 1.11        | 1.28        |  |
| 3    | Co 15005          | 1.21        |              | 1.39        |          | 0.92        | 0.96        | 1.02        | 1.41        | 1.41           | 1.46        | 1.10        | 1.12        |        | 1.61        | 1.43        | 1.32        | 1.26        |  |
| 4    | Co 15006          | 1.40        |              | 1.38        |          | 1.33        | 1.40        | 1.11        | 1.45        | 1.28           | 1.41        | 1.26        | 1.28        |        | 1.54        | 1.56        | 1.24        | 1.36        |  |
| 5    | Co 15007          | 1.34        |              | 1.45        |          | 2.00        | 1.21        | 1.14        | 1.82        | 1.42           | 1.51        | 1.28        | 1.50        |        | 1.26        | 1.58        | 1.33        | 1.45        |  |
| 6    | Co 15009          | 1.65        |              | 1.49        |          | 1.35        | 1.31        | 1.13        | 1.50        | 1.28           | 2.09        | 1.63        | 1.80        |        | 1.54        | 1.51        | 1.34        | 1.51        |  |
| 7    | Co 15010          | 1.45        |              | 1.51        |          | 1.38        | 1.35        | 1.01        | 1.29        | 1.36           | 1.01        | 1.60        | 1.69        |        | 1.36        | 1.59        | 1.42        | 1.39        |  |
| 8    | Co 15017          | 1.22        |              | 1.39        |          | 0.97        | 1.05        | 1.17        | 1.64        | 1.14           | 1.61        | 1.30        | 1.27        |        | 1.56        | 1.16        | 1.09        | 1.27        |  |
| 9    | Co 15021          | 1.37        |              | 1.50        |          | 1.28        | 1.34        | 1.04        | 1.47        | 1.57           | 2.21        | 1.03        | 1.42        |        | 1.27        | 1.19        | 1.40        | 1.39        |  |
| 10   | CoSnk 15102       | 1.32        |              | 1.38        |          | 0.92        | 1.33        | 1.13        | 1.65        | 1.63           | 1.34        | 1.32        | 1.46        |        | 1.95        | 1.40        | 1.12        | 1.38        |  |
| 11   | CoN 15071         | 1.63        |              | 1.70        |          | 1.74        | 1.42        | 1.35        | 1.78        | 1.42           | 1.79        | 1.44        | 1.72        |        | 1.80        | 1.73        | 1.61        | 1.63        |  |
| 12   | PI 15131          | 1.47        |              | 2.06        |          | 2.03        | 1.31        | 1.11        | 1.94        | 1.71           | 1.51        | 1.47        | 1.42        |        | 1.72        | 1.74        | 1.38        | 1.61        |  |
|      | <b>Stds</b>       |             |              |             |          |             |             |             |             |                |             |             |             |        |             |             |             |             |  |
| 1    | Co 86032          | 1.36        |              | 1.42        |          | 1.83        | 1.50        | 0.95        | 1.82        | 1.08           | 1.28        | 1.28        | 1.40        |        | 1.23        | 1.91        | 1.29        | 1.41        |  |
| 2    | CoC 671           | 1.58        |              | 1.50        |          | 1.75        | 1.53        | 1.11        | 1.73        | 1.18           | 1.71        | 1.39        | 1.49        |        | 1.43        | 1.57        | 1.44        | 1.49        |  |
| 3    | Co 09004          | 1.18        |              | 1.78        |          | 1.58        | 1.28        | 1.100       | 1.67        | 1.71           | 1.16        | 1.20        | 1.47        |        | 1.57        | 1.76        | 1.22        | 1.44        |  |
|      | <b>Grand mean</b> | <b>1.38</b> |              | <b>1.51</b> |          | <b>1.48</b> | <b>1.28</b> | <b>1.10</b> | <b>1.61</b> | <b>1.37</b>    | <b>1.52</b> | <b>1.32</b> | <b>1.46</b> |        | <b>1.41</b> | <b>1.53</b> | <b>1.31</b> | <b>1.41</b> |  |
|      | SE                | 0.12        |              | 0.11        |          | 0.13        | 0.07        | 0.03        | 0.14        | 0.05           | 0.03        | 0.81        | 0.04        |        | 0.08        | 0.09        | 0.07        |             |  |
|      | CD                | 0.36        |              | 0.32        |          | 0.38        | 0.20        | 0.09        | NS          | 0.13           | 0.09        | 0.24        | 0.12        |        | 0.24        | 0.27        | 0.21        |             |  |
|      | CV                | 15.39       |              | 12.71       |          | 15.22       | 9.40        | 4.75        | 15.44       | 5.85           | 3.9         | 10.56       | 4.74        |        | 9.8         | 10.71       | 9.56        |             |  |

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**Table 2.4.25 Stalk length (cm) at 8 month**

| S No | Entries           | Coimbatore    | Basmathnagar | Belgaum       | Kawardha | Kolhapur | Mandya        | Navsari       | Padegaon      | Perunallapalle | Pravarangar   | Pugalur       | Pune          | Rudrur | Samnerwadi    | Sanke shwar   | Thiruvalla | Mean          |
|------|-------------------|---------------|--------------|---------------|----------|----------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------|---------------|---------------|------------|---------------|
| 1    | Co 11015          | 193.33        |              | 205.50        |          |          | 200.67        | 217.00        | 216.33        | 246.67         | 153.00        | 217.31        | 141.33        |        | 230.00        | 144.33        |            | 196.86        |
| 2    | Co 14005          | 196.67        |              | 216.50        |          |          | 184.00        | 231.33        | 205.67        | 260.00         | 169.50        | 244.26        | 153.22        |        | 244.33        | 170.10        |            | 206.87        |
| 3    | Co 15005          | 168.33        |              | 193.00        |          |          | 170.67        | 200.33        | 197.33        | 243.33         | 184.50        | 213.37        | 151.78        |        | 264.00        | 139.00        |            | 193.24        |
| 4    | Co 15006          | 165.00        |              | 194.67        |          |          | 195.33        | 217.00        | 204.33        | 283.33         | 155.00        | 234.67        | 133.00        |        | 237.33        | 162.00        |            | 198.33        |
| 5    | Co 15007          | 185.00        |              | 196.50        |          |          | 164.00        | 202.33        | 179.00        | 250.00         | 162.50        | 188.56        | 138.67        |        | 251.33        | 141.33        |            | 187.20        |
| 6    | Co 15009          | 206.67        |              | 201.33        |          |          | 153.33        | 202.67        | 221.67        | 276.67         | 156.00        | 259.40        | 165.44        |        | 275.00        | 169.00        |            | 207.93        |
| 7    | Co 15010          | 195.00        |              | 223.67        |          |          | 185.33        | 209.33        | 187.00        | 263.33         | 182.50        | 198.54        | 162.33        |        | 193.00        | 165.67        |            | 196.88        |
| 8    | Co 15017          | 200.00        |              | 186.17        |          |          | 179.33        | 171.00        | 203.33        | 246.67         | 184.00        | 236.96        | 130.22        |        | 219.66        | 144.00        |            | 191.03        |
| 9    | Co 15021          | 196.67        |              | 200.83        |          |          | 179.33        | 169.33        | 206.33        | 260.00         | 194.00        | 241.47        | 150.78        |        | 237.33        | 134.33        |            | 197.31        |
| 10   | CoSnk 15102       | 230.00        |              | 213.00        |          |          | 203.33        | 251.00        | 244.00        | 276.67         | 179.00        | 224.67        | 170.34        |        | 250.33        | 174.33        |            | 219.70        |
| 11   | CoN 15071         | 166.67        |              | 200.00        |          |          | 189.33        | 243.00        | 207.67        | 216.67         | 190.00        | 301.33        | 156.11        |        | 248.33        | 186.67        |            | 209.62        |
| 12   | PI 15131          | 203.33        |              | 209.17        |          |          | 171.33        | 228.33        | 211.33        | 253.33         | 159.00        | 237.68        | 141.78        |        | 246.33        | 157.33        |            | 201.72        |
|      | <b>Stds</b>       |               |              |               |          |          |               |               |               |                |               |               |               |        |               |               |            |               |
| 1    | Co 86032          | 191.67        |              | 201.67        |          |          | 200.67        | 195.67        | 202.33        | 290.00         | 181.00        | 233.38        | 121.56        |        | 266.00        | 159.33        |            | 203.93        |
| 2    | CoC 671           | 223.33        |              | 177.50        |          |          | 193.33        | 185.00        | 199.00        | 263.33         | 175.50        | 228.73        | 129.56        |        | 249.66        | 150.33        |            | 197.75        |
| 3    | Co 09004          | 221.67        |              | 231.83        |          |          | 206.00        | 214.00        | 227.67        | 293.33         | 161.00        | 249.47        | 163.22        |        | 249.66        | 186.67        |            | 218.59        |
|      | <b>Grand mean</b> | <b>196.22</b> |              | <b>203.42</b> |          |          | <b>185.07</b> | <b>209.16</b> | <b>207.53</b> | <b>261.56</b>  | <b>172.43</b> | <b>233.99</b> | <b>147.29</b> |        | <b>255.11</b> | <b>158.96</b> |            | <b>202.79</b> |
|      | SE                | 13.92         |              | 8.96          |          |          | 5.62          | 5.20          | 11.13         | 12.55          | 1.55          | 12.62         | 4.01          |        | 15.62         | 6.22          |            |               |
|      | CD                | N S           |              | 25.94         |          |          | 16.29         | 15.08         | NS            | 36.36          | 4.49          | 36.57         | 11.62         |        | NS            | 18.03         |            |               |
|      | CV                | 12.28         |              | 7.63          |          |          | 5.26          | 4.31          | 9.29          | 8.31           | 1.55          | 9.34          | 4.72          |        | 11.08         | 6.78          |            |               |

**Table 2.4.26 Stalk diameter (cm) at 8 month**

| S No | Entries           | Coimbatore  | Basmathnagar | Belgaum     | Kawardha | Kolhapur | Mandya      | Navsari     | Padegao     | Perunallapalle | Pravaranagar | Pugalur     | Pune        | Rudrur | Samnerwadi  | Sanke shwar | Thiruvalla | Mean        |
|------|-------------------|-------------|--------------|-------------|----------|----------|-------------|-------------|-------------|----------------|--------------|-------------|-------------|--------|-------------|-------------|------------|-------------|
| 1    | Co 11015          | 2.88        |              | 2.53        |          |          | 2.53        | 2.39        | 2.90        | 2.93           | 2.14         | 2.59        | 3.20        |        | 2.03        | 2.94        |            | <b>2.64</b> |
| 2    | Co 14005          | 2.54        |              | 2.63        |          |          | 2.38        | 2.50        | 2.56        | 2.63           | 2.49         | 2.39        | 2.66        |        | 2.10        | 2.72        |            | <b>2.51</b> |
| 3    | Co 15005          | 2.32        |              | 2.62        |          |          | 2.62        | 2.37        | 3.02        | 2.77           | 2.52         | 2.45        | 3.09        |        | 2.50        | 2.94        |            | <b>2.66</b> |
| 4    | Co 15006          | 2.83        |              | 2.88        |          |          | 2.75        | 2.42        | 2.92        | 2.87           | 2.50         | 2.51        | 3.22        |        | 2.53        | 2.88        |            | <b>2.76</b> |
| 5    | Co 15007          | 2.93        |              | 2.83        |          |          | 2.89        | 2.33        | 3.47        | 3.50           | 2.47         | 2.76        | 3.33        |        | 1.86        | 3.21        |            | <b>2.87</b> |
| 6    | Co 15009          | 2.59        |              | 2.55        |          |          | 2.90        | 2.39        | 2.88        | 2.77           | 2.36         | 2.89        | 3.42        |        | 2.26        | 2.78        |            | <b>2.71</b> |
| 7    | Co 15010          | 2.85        |              | 2.53        |          |          | 2.91        | 2.41        | 2.91        | 3.23           | 2.44         | 2.95        | 3.37        |        | 2.43        | 2.98        |            | <b>2.82</b> |
| 8    | Co 15017          | 2.62        |              | 2.55        |          |          | 2.64        | 2.29        | 2.90        | 2.80           | 2.52         | 2.45        | 3.01        |        | 2.36        | 2.71        |            | <b>2.62</b> |
| 9    | Co 15021          | 2.59        |              | 2.70        |          |          | 2.75        | 2.37        | 3.10        | 2.93           | 2.53         | 2.76        | 3.28        |        | 2.30        | 2.69        |            | <b>2.73</b> |
| 10   | CoSnk 15102       | 2.55        |              | 2.32        |          |          | 2.78        | 2.53        | 2.83        | 2.80           | 2.53         | 2.53        | 2.91        |        | 2.73        | 2.74        |            | <b>2.66</b> |
| 11   | CoN 15071         | 3.12        |              | 2.93        |          |          | 2.81        | 2.60        | 3.12        | 3.10           | 2.36         | 2.18        | 3.26        |        | 2.36        | 3.16        |            | <b>2.82</b> |
| 12   | PI 15131          | 2.91        |              | 2.90        |          |          | 2.95        | 2.47        | 3.40        | 3.13           | 2.52         | 2.71        | 3.53        |        | 2.43        | 3.16        |            | <b>2.92</b> |
|      | <b>Stds</b>       |             |              |             |          |          |             |             |             |                |              |             |             |        |             |             |            |             |
| 1    | Co 86032          | 2.9         |              | 2.87        |          |          | 2.77        | 2.35        | 3.05        | 2.70           | 2.43         | 2.64        | 3.20        |        | 2.20        | 3.04        |            | <b>2.74</b> |
| 2    | CoC 671           | 2.85        |              | 2.78        |          |          | 2.95        | 2.48        | 2.96        | 2.83           | 2.44         | 2.39        | 3.24        |        | 2.06        | 3.18        |            | <b>2.74</b> |
| 3    | Co 09004          | 2.51        |              | 2.88        |          |          | 2.77        | 2.39        | 2.85        | 2.77           | 2.25         | 2.49        | 3.16        |        | 2.30        | 2.86        |            | <b>2.66</b> |
|      | <b>Grand mean</b> | <b>2.73</b> |              | <b>2.70</b> |          |          | <b>2.76</b> | <b>2.42</b> | <b>2.99</b> | <b>2.92</b>    | <b>2.43</b>  | <b>2.58</b> | <b>3.19</b> |        | <b>2.19</b> | <b>2.93</b> |            | <b>2.71</b> |
|      | SE                | 0.11        |              | 0.12        |          |          | 0.10        | 0.03        | 0.11        | 0.10           | 0.02         | 0.11        | 0.05        |        | 0.10        | 0.06        |            |             |
|      | CD                | 0.32        |              | 0.34        |          |          | 0.28        | 0.08        | 0.31        | 0.30           | 0.06         | 0.31        | 0.16        |        | 0.29        | 0.17        |            |             |
|      | CV                | 7.17        |              | 7.56        |          |          | 6.02        | 1.96        | 6.14        | 6.16           | 1.62         | 7.28        | 2.97        |        | 7.71        | 3.46        |            |             |

**Table 2.4.27 Single cane weight (kg) at 8 month**

| S No | Entries           | Coimbatore  | Basmath nagar | Belgaum     | Kawardha | Kolhapur | Mandya      | Navsari     | Padegao     | Perunallapalle | Pravaragar  | Pugalur     | Pune        | Rudrur | Sameerwadi  | Sanke shwar | Thiruvalla | Mean        |
|------|-------------------|-------------|---------------|-------------|----------|----------|-------------|-------------|-------------|----------------|-------------|-------------|-------------|--------|-------------|-------------|------------|-------------|
| 1    | Co 11015          | 1.10        |               | 1.19        |          |          | 1.06        | 0.94        | 1.42        | 1.38           | 0.70        | 1.14        | 1.20        |        | 1.34        | 1.08        |            | 1.14        |
| 2    | Co 14005          | 0.83        |               | 1.37        |          |          | 0.81        | 1.12        | 0.98        | 1.20           | 1.51        | 1.11        | 0.94        |        | 1.34        | 1.03        |            | 1.11        |
| 3    | Co 15005          | 0.76        |               | 1.13        |          |          | 0.85        | 0.96        | 1.04        | 1.20           | 1.06        | 0.87        | 1.04        |        | 1.55        | 1.01        |            | 1.04        |
| 4    | Co 15006          | 0.94        |               | 1.34        |          |          | 1.17        | 1.09        | 1.26        | 1.63           | 1.16        | 1.03        | 1.05        |        | 1.51        | 1.13        |            | 1.21        |
| 5    | Co 15007          | 1.21        |               | 1.29        |          |          | 1.01        | 1.09        | 1.19        | 1.62           | 1.19        | 1.13        | 1.12        |        | 1.30        | 1.17        |            | 1.21        |
| 6    | Co 15009          | 1.00        |               | 1.19        |          |          | 1.03        | 1.09        | 1.28        | 1.53           | 0.79        | 1.53        | 1.44        |        | 1.51        | 1.12        |            | 1.23        |
| 7    | Co 15010          | 1.13        |               | 1.33        |          |          | 1.24        | 0.98        | 1.29        | 1.60           | 1.87        | 1.36        | 1.44        |        | 1.37        | 1.25        |            | 1.35        |
| 8    | Co 15017          | 1.05        |               | 1.09        |          |          | 0.92        | 1.11        | 1.16        | 1.18           | 1.33        | 1.11        | 1.01        |        | 1.41        | 0.89        |            | 1.11        |
| 9    | Co 15021          | 1.07        |               | 1.21        |          |          | 1.20        | 0.98        | 1.02        | 1.34           | 1.34        | 0.78        | 1.22        |        | 1.11        | 0.81        |            | 1.10        |
| 10   | CoSnk 15102       | 1.03        |               | 1.10        |          |          | 1.15        | 1.09        | 1.12        | 1.40           | 0.99        | 1.13        | 1.10        |        | 1.93        | 1.09        |            | 1.19        |
| 11   | CoN 15071         | 1.06        |               | 1.47        |          |          | 1.30        | 1.30        | 1.46        | 1.22           | 1.51        | 1.31        | 1.26        |        | 1.85        | 1.51        |            | 1.39        |
| 12   | PI 15131          | 1.14        |               | 1.52        |          |          | 1.25        | 1.05        | 1.42        | 1.70           | 1.20        | 1.40        | 1.38        |        | 1.67        | 1.33        |            | 1.37        |
|      | <b>Stds</b>       |             |               |             |          |          |             |             |             |                |             |             |             |        |             |             |            |             |
| 1    | Co 86032          | 1.23        |               | 1.41        |          |          | 1.33        | 0.92        | 1.49        | 1.24           | 1.06        | 1.14        | 0.90        |        | 1.24        | 1.18        |            | 1.20        |
| 2    | CoC 671           | 1.30        |               | 1.24        |          |          | 1.45        | 1.09        | 1.31        | 1.46           | 1.51        | 1.08        | 1.23        |        | 1.37        | 1.23        |            | 1.30        |
| 3    | Co 09004          | 1.05        |               | 1.69        |          |          | 1.20        | 1.05        | 1.28        | 1.56           | 0.88        | 1.18        | 1.13        |        | 1.32        | 1.37        |            | 1.25        |
|      | <b>Grand mean</b> | <b>1.06</b> |               | <b>1.30</b> |          |          | <b>1.13</b> | <b>1.06</b> | <b>1.25</b> | <b>1.42</b>    | <b>1.20</b> | <b>1.15</b> | <b>1.16</b> |        | <b>1.31</b> | <b>1.15</b> |            | <b>1.20</b> |
|      | SE                | 0.13        |               | 0.10        |          |          | 0.07        | 0.04        | 0.08        | 0.09           | 0.03        | 0.77        | 0.04        |        | 0.11        | 0.07        |            |             |
|      | CD                | NS          |               | 0.30        |          |          | 0.20        | 0.10        | 0.24        | 0.27           | 0.09        | 0.22        | 0.13        |        | 0.32        | 0.19        |            |             |
|      | CV                | 20.79       |               | 13.79       |          |          | 10.41       | 5.86        | 11.61       | 11.22          | 4.50        | 11.52       | 6.42        |        | 13.28       | 10.14       |            |             |

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**Table 2.4.28 CCS % at 8 month**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum | Kawardha | Kolhapur | Mandya       | Navsari     | Padegao     | Perunallapalle | Pravaranagar | Pugalur     | Pune        | Rudrur      | Samnerwadi   | Sanke shwar | Thiruvalla | Mean         |
|------|-------------------|--------------|--------------|---------|----------|----------|--------------|-------------|-------------|----------------|--------------|-------------|-------------|-------------|--------------|-------------|------------|--------------|
| 1    | Co 11015          | 12.87        |              |         |          |          | 12.58        | 10.74       | 10.79       | 12.17          | 12.97        | 11.93       | 8.93        | 11.95       | 12.97        | 13.03       |            | 11.90        |
| 2    | Co 14005          | 11.90        |              |         |          |          | 11.59        | 7.57        | 11.10       | 10.97          | 13.17        | 9.58        | 8.81        | 8.44        | 8.93         | 10.42       |            | 10.22        |
| 3    | Co 15005          | 12.28        |              |         |          |          | 11.60        | 7.97        | 10.82       | 11.16          | 12.53        | 9.01        | 9.40        | 10.24       | 8.43         | 8.97        |            | 10.22        |
| 4    | Co 15006          | 11.84        |              |         |          |          | 10.31        | 7.79        | 7.92        | 10.10          | 13.32        | 7.88        | 7.11        | 6.94        | 9.72         | 7.54        |            | 9.13         |
| 5    | Co 15007          | 12.14        |              |         |          |          | 11.57        | 6.25        | 9.60        | 9.59           | 12.38        | 7.60        | 6.90        | 8.33        | 11.29        | 9.06        |            | 9.52         |
| 6    | Co 15009          | 10.95        |              |         |          |          | 11.02        | 7.76        | 6.96        | 9.86           | 12.26        | 6.32        | 7.39        | 10.61       | 6.49         | 7.27        |            | 8.81         |
| 7    | Co 15010          | 9.70         |              |         |          |          | 10.32        | 6.85        | 9.74        | 8.77           | 13.85        | 6.34        | 7.76        | 9.91        | 7.07         | 6.30        |            | 8.78         |
| 8    | Co 15017          | 11.86        |              |         |          |          | 11.17        | 8.66        | 8.92        | 10.70          | 11.80        | 9.65        | 8.99        | 10.85       | 6.18         | 11.91       |            | 10.06        |
| 9    | Co 15021          | 10.73        |              |         |          |          | 10.03        | 6.74        | 7.55        | 9.57           | 11.66        | 8.76        | 5.66        | 9.18        | 8.27         | 7.77        |            | 8.72         |
| 10   | CoSnk 15102       | 12.09        |              |         |          |          | 12.45        | 9.87        | 10.07       | 10.94          | 13.07        | 10.47       | 9.61        | 10.07       | 7.45         | 10.74       |            | 10.62        |
| 11   | CoN 15071         | 9.80         |              |         |          |          | 10.30        | 9.49        | 8.63        | 10.38          | 13.26        | 9.29        | 7.37        | 8.25        | 7.61         | 8.41        |            | 9.34         |
| 12   | PI 15131          | 10.76        |              |         |          |          | 11.18        | 6.56        | 8.64        | 10.09          | 13.31        | 7.79        | 6.58        | 8.95        | 6.99         | 8.18        |            | 9.00         |
|      | <b>Stds</b>       |              |              |         |          |          |              |             |             |                |              |             |             |             |              |             |            |              |
| 1    | Co 86032          | 11.51        |              |         |          |          | 11.22        | 9.47        | 8.22        | 10.66          | 12.11        | 10.68       | 8.71        | 7.83        | 11.03        | 8.35        |            | 9.98         |
| 2    | CoC 671           | 11.74        |              |         |          |          | 11.73        | 8.41        | 9.88        | 10.70          | 13.66        | 7.81        | 9.20        | 7.14        | 10.93        | 9.65        |            | 10.08        |
| 3    | Co 09004          | 12.34        |              |         |          |          | 12.81        | 8.00        | 12.16       | 10.46          | 12.35        | 10.24       | 9.53        | 11.66       | 11.92        | 11.77       |            | 11.20        |
|      | <b>Grand mean</b> | <b>11.50</b> |              |         |          |          | <b>11.33</b> | <b>8.14</b> | <b>9.40</b> | <b>10.41</b>   | <b>12.78</b> | <b>8.89</b> | <b>8.13</b> | <b>9.36</b> | <b>11.29</b> | <b>9.29</b> |            | <b>10.05</b> |
|      | SE                | 0.49         |              |         |          |          | 0.42         | 0.20        | 0.46        | 0.16           | 0.41         | 0.16        | 0.15        | 0.02        | 0.25         | 0.46        |            |              |
|      | CD                | 1.43         |              |         |          |          | 1.22         | 0.57        | 1.33        | 0.45           | 1.19         | 0.45        | 0.43        | 0.07        | 0.73         | 1.34        |            |              |
|      | CV                | 7.40         |              |         |          |          | 6.43         | 4.17        | 8.48        | 2.61           | 5.57         | 3.02        | 3.18        | 0.45        | 4.85         | 8.63        |            |              |



Varietal Improvement Programme-AICRP (Sugarcane)  
Principal Investigator's Report (2020-21)  
Peninsular zone AVT I Plant

**Table 2.4.29 Sucrose % at 8 month**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum | Kawardha | Kolhapur | Mandya       | Navsari      | Padegao      | Perunallapalle | Pravara      | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla | Mean         |
|------|-------------------|--------------|--------------|---------|----------|----------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|
| 1    | Co 11015          | 18.32        |              |         |          |          | 17.84        | 15.50        | 15.71        | 17.54          | 18.69        | 17.19        | 13.19        | 17.37        | 18.76        | 18.32        |            | 17.13        |
| 2    | Co 14005          | 17.09        |              |         |          |          | 16.39        | 12.27        | 16.04        | 16.05          | 18.45        | 13.95        | 12.84        | 13.16        | 13.32        | 15.10        |            | 14.97        |
| 3    | Co 15005          | 17.57        |              |         |          |          | 16.33        | 12.69        | 15.68        | 16.31          | 17.57        | 13.26        | 13.25        | 15.46        | 12.73        | 13.25        |            | 14.92        |
| 4    | Co 15006          | 16.93        |              |         |          |          | 14.57        | 12.01        | 12.16        | 14.86          | 18.79        | 11.76        | 10.53        | 11.27        | 14.21        | 11.38        |            | 13.50        |
| 5    | Co 15007          | 17.42        |              |         |          |          | 16.26        | 10.49        | 14.20        | 14.07          | 17.45        | 11.46        | 10.47        | 12.91        | 16.34        | 13.20        |            | 14.03        |
| 6    | Co 15009          | 15.95        |              |         |          |          | 15.50        | 11.76        | 10.88        | 14.44          | 17.20        | 9.94         | 10.68        | 15.70        | 10.50        | 11.06        |            | 13.06        |
| 7    | Co 15010          | 14.61        |              |         |          |          | 14.76        | 10.33        | 14.34        | 12.91          | 19.47        | 9.94         | 11.08        | 15.19        | 11.09        | 10.06        |            | 13.07        |
| 8    | Co 15017          | 17.09        |              |         |          |          | 15.85        | 12.94        | 13.39        | 15.65          | 16.52        | 14.11        | 12.68        | 15.96        | 9.60         | 16.84        |            | 14.60        |
| 9    | Co 15021          | 15.56        |              |         |          |          | 14.32        | 10.49        | 11.49        | 14.01          | 16.15        | 13.02        | 9.00         | 13.92        | 12.47        | 11.74        |            | 12.92        |
| 10   | CoSnk 15102       | 17.35        |              |         |          |          | 17.51        | 14.41        | 14.79        | 15.96          | 18.00        | 15.21        | 14.02        | 15.18        | 11.44        | 15.55        |            | 15.40        |
| 11   | CoN 15071         | 14.39        |              |         |          |          | 14.58        | 13.74        | 12.92        | 15.15          | 18.49        | 13.72        | 10.76        | 12.72        | 11.51        | 12.42        |            | 13.67        |
| 12   | PI 15131          | 15.67        |              |         |          |          | 15.78        | 10.44        | 12.91        | 14.88          | 18.72        | 11.86        | 10.15        | 13.65        | 10.82        | 12.24        |            | 13.37        |
|      | <b>Stds</b>       |              |              |         |          |          |              |              |              |                |              |              |              |              |              |              |            |              |
| 1    | Co 86032          | 16.54        |              |         |          |          | 15.84        | 13.82        | 12.66        | 15.61          | 16.95        | 15.51        | 12.30        | 12.42        | 16.03        | 12.45        |            | 14.56        |
| 2    | CoC 671           | 16.86        |              |         |          |          | 16.55        | 12.72        | 14.52        | 15.69          | 19.51        | 11.73        | 12.99        | 11.32        | 16.02        | 14.06        |            | 14.72        |
| 3    | Co 09004          | 17.66        |              |         |          |          | 18.13        | 12.57        | 17.28        | 15.28          | 17.41        | 14.88        | 13.90        | 16.92        | 17.22        | 16.56        |            | 16.16        |
|      | <b>Grand mean</b> | <b>16.60</b> |              |         |          |          | <b>16.01</b> | <b>12.41</b> | <b>13.93</b> | <b>15.23</b>   | <b>17.95</b> | <b>13.17</b> | <b>11.86</b> | <b>14.21</b> | <b>16.42</b> | <b>13.61</b> |            | <b>14.67</b> |
|      | SE                | 0.62         |              |         |          |          | 0.55         | 0.20         | 0.58         | 0.22           | 0.56         | 0.21         | 0.19         | 0.05         | 0.31         | 0.52         |            |              |
|      | CD                | 1.81         |              |         |          |          | 1.61         | 0.58         | 1.67         | 0.62           | 1.62         | 0.61         | 0.55         | 0.16         | 0.92         | 1.51         |            |              |
|      | CV                | 6.50         |              |         |          |          | 5.99         | 2.77         | 7.16         | 2.45           | 5.42         | 2.75         | 2.77         | 0.65         | 4.09         | 6.65         |            |              |

Varietal Improvement Programme- AICRP (Sugarcane)  
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Peninsular zone AVT I Plant

**Table 2.4.30 Brix % at 8 month**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum | Kawardha | Kolhapur | Mandya       | Navsari      | Padegao      | Perunallapalle | Pravara      | Pugalur      | Pune         | Rudrur       | Samner       | Sanke shwar  | Thiruvalla | Mean         |
|------|-------------------|--------------|--------------|---------|----------|----------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|
| 1    | Co 11015          | 20.03        |              |         |          |          | 19.47        | 17.47        | 18.02        | 19.73          | 19.71        | 19.31        | 16.00        | 19.87        | 21.25        | 19.50        |            | 19.12        |
| 2    | Co 14005          | 19.07        |              |         |          |          | 17.80        | 17.03        | 18.13        | 18.63          | 19.45        | 15.99        | 15.20        | 17.17        | 16.04        | 17.16        |            | 17.42        |
| 3    | Co 15005          | 19.45        |              |         |          |          | 17.53        | 17.10        | 17.80        | 18.90          | 18.61        | 15.56        | 14.62        | 19.03        | 15.67        | 15.66        |            | 17.27        |
| 4    | Co 15006          | 18.71        |              |         |          |          | 15.80        | 15.33        | 15.44        | 17.43          | 20.15        | 14.17        | 12.82        | 15.67        | 16.44        | 13.99        |            | 16.00        |
| 5    | Co 15007          | 19.40        |              |         |          |          | 17.40        | 15.30        | 16.82        | 16.43          | 18.65        | 14.10        | 13.31        | 16.67        | 18.51        | 15.16        |            | 16.52        |
| 6    | Co 15009          | 18.34        |              |         |          |          | 16.60        | 14.60        | 14.22        | 16.77          | 18.21        | 13.13        | 12.41        | 18.63        | 14.52        | 13.79        |            | 15.57        |
| 7    | Co 15010          | 17.93        |              |         |          |          | 16.43        | 12.70        | 16.84        | 15.17          | 20.71        | 13.05        | 12.56        | 19.23        | 14.58        | 13.63        |            | 15.71        |
| 8    | Co 15017          | 19.20        |              |         |          |          | 17.33        | 15.63        | 16.32        | 18.13          | 17.41        | 16.33        | 14.00        | 18.70        | 12.44        | 18.13        |            | 16.69        |
| 9    | Co 15021          | 17.71        |              |         |          |          | 15.87        | 13.62        | 14.35        | 16.27          | 16.61        | 15.57        | 12.38        | 17.27        | 15.31        | 14.49        |            | 15.40        |
| 10   | CoSnk 15102       | 19.33        |              |         |          |          | 18.73        | 16.63        | 17.29        | 18.43          | 19.81        | 17.38        | 16.60        | 18.63        | 14.51        | 17.66        |            | 17.73        |
| 11   | CoN 15071         | 16.80        |              |         |          |          | 15.87        | 15.60        | 15.66        | 17.50          | 19.31        | 16.19        | 12.75        | 16.27        | 14.24        | 14.66        |            | 15.90        |
| 12   | PI 15131          | 18.02        |              |         |          |          | 17.07        | 14.07        | 15.60        | 17.53          | 19.91        | 14.83        | 13.28        | 17.13        | 13.91        | 14.83        |            | 16.02        |
|      | <b>Stds</b>       |              |              |         |          |          |              |              |              |                |              |              |              |              |              |              |            |              |
| 1    | Co 86032          | 18.47        |              |         |          |          | 17.13        | 15.93        | 16.17        | 18.17          | 17.85        | 17.72        | 13.63        | 16.63        | 18.34        | 14.99        |            | 16.82        |
| 2    | CoC 671           | 18.80        |              |         |          |          | 17.87        | 15.73        | 17.00        | 18.30          | 21.51        | 14.33        | 14.37        | 15.17        | 18.64        | 16.16        |            | 17.08        |
| 3    | Co 09004          | 19.57        |              |         |          |          | 19.67        | 16.60        | 18.84        | 17.67          | 19.41        | 17.01        | 16.47        | 19.30        | 19.47        | 17.66        |            | 18.33        |
|      | <b>Grand mean</b> | <b>18.72</b> |              |         |          |          | <b>17.37</b> | <b>15.56</b> | <b>16.57</b> | <b>17.67</b>   | <b>19.15</b> | <b>15.64</b> | <b>14.03</b> | <b>17.69</b> | <b>18.82</b> | <b>15.83</b> |            | <b>17.00</b> |
|      | SE                | 0.51         |              |         |          |          | 0.53         | 0.28         | 0.50         | 0.23           | 0.59         | 0.22         | 0.23         | 0.16         | 0.30         | 0.40         |            |              |
|      | CD                | 1.48         |              |         |          |          | 1.53         | 0.82         | 1.45         | 0.65           | 1.71         | 0.63         | 0.67         | 0.46         | 0.89         | 1.15         |            |              |
|      | CV                | 4.71         |              |         |          |          | 5.27         | 3.14         | 5.24         | 2.21           | 5.35         | 2.40         | 2.87         | 1.55         | 3.27         | 4.33         |            |              |

Varietal Improvement Programme-AICRP (Sugarcane)  
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**Table 2.4.31 Purity % at 8 month**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum | Kawardha | Kolhapur | Mandya       | Navsari      | Padegao      | Perunallapalle | Pravaranagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla | Mean         |
|------|-------------------|--------------|--------------|---------|----------|----------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|
| 1    | Co 11015          | 91.41        |              |         |          |          | 92.13        | 88.75        | 87.12        | 88.90          | 91.94        | 89.05        | 82.42        | 87.45        | 88.27        | 94.00        |            | 89.22        |
| 2    | Co 14005          | 89.53        |              |         |          |          | 92.64        | 72.06        | 88.46        | 86.13          | 94.78        | 87.20        | 84.54        | 76.66        | 83.07        | 87.77        |            | 85.71        |
| 3    | Co 15005          | 89.91        |              |         |          |          | 93.72        | 74.35        | 87.96        | 86.30          | 94.38        | 85.24        | 90.66        | 81.22        | 81.14        | 84.53        |            | 86.31        |
| 4    | Co 15006          | 90.48        |              |         |          |          | 92.88        | 78.32        | 78.63        | 85.23          | 93.20        | 82.97        | 82.25        | 71.92        | 86.40        | 81.32        |            | 83.96        |
| 5    | Co 15007          | 89.77        |              |         |          |          | 94.05        | 68.66        | 84.39        | 85.63          | 93.53        | 81.30        | 78.60        | 77.50        | 88.26        | 87.15        |            | 84.44        |
| 6    | Co 15009          | 86.92        |              |         |          |          | 93.96        | 80.75        | 76.02        | 86.10          | 94.51        | 75.68        | 86.05        | 84.29        | 72.40        | 80.11        |            | 83.34        |
| 7    | Co 15010          | 81.38        |              |         |          |          | 90.27        | 81.41        | 85.15        | 85.10          | 94.00        | 76.12        | 88.24        | 79.00        | 75.98        | 73.79        |            | 82.77        |
| 8    | Co 15017          | 89.00        |              |         |          |          | 91.99        | 82.72        | 81.94        | 86.30          | 94.85        | 86.37        | 90.56        | 85.34        | 77.11        | 92.89        |            | 87.19        |
| 9    | Co 15021          | 87.92        |              |         |          |          | 90.77        | 77.02        | 80.00        | 86.13          | 97.22        | 83.62        | 72.73        | 80.63        | 81.46        | 81.01        |            | 83.50        |
| 10   | CoSnk 15102       | 89.74        |              |         |          |          | 94.02        | 86.66        | 85.42        | 86.60          | 93.18        | 87.51        | 84.53        | 81.45        | 78.81        | 88.04        |            | 86.91        |
| 11   | CoN 15071         | 85.64        |              |         |          |          | 92.55        | 88.13        | 82.49        | 86.60          | 95.76        | 84.72        | 84.35        | 78.21        | 80.82        | 84.58        |            | 85.80        |
| 12   | PI 15131          | 86.81        |              |         |          |          | 92.99        | 74.23        | 82.74        | 84.87          | 94.01        | 79.94        | 76.42        | 79.67        | 77.79        | 82.57        |            | 82.91        |
|      | <b>Stds</b>       |              |              |         |          |          |              |              |              |                |              |              |              |              |              |              |            |              |
| 1    | Co 86032          | 89.51        |              |         |          |          | 93.09        | 86.78        | 78.54        | 85.93          | 94.78        | 87.54        | 90.24        | 74.65        | 87.41        | 82.93        |            | 86.49        |
| 2    | CoC 671           | 89.62        |              |         |          |          | 93.19        | 80.87        | 85.43        | 85.73          | 90.71        | 81.87        | 90.35        | 74.64        | 85.94        | 87.07        |            | 85.95        |
| 3    | Co 09004          | 90.31        |              |         |          |          | 92.70        | 75.74        | 91.72        | 86.47          | 92.30        | 87.47        | 84.41        | 87.67        | 88.45        | 93.84        |            | 88.28        |
|      | <b>Grand mean</b> | <b>88.53</b> |              |         |          |          | <b>92.73</b> | <b>79.76</b> | <b>83.73</b> | <b>86.14</b>   | <b>93.94</b> | <b>83.77</b> | <b>84.42</b> | <b>80.02</b> | <b>87.27</b> | <b>85.44</b> |            | <b>85.98</b> |
|      | SE                | 1.12         |              |         |          |          | 0.99         | 1.61         | 1.76         | 0.28           | 0.79         | 0.45         | 0.86         | 0.46         | 1.14         | 2.54         |            |              |
|      | CD                | 3.25         |              |         |          |          | 2.87         | 4.67         | 5.12         | 0.81           | 2.29         | 1.30         | 2.49         | 1.34         | 3.32         | 7.36         |            |              |
|      | CV                | 2.18         |              |         |          |          | 1.85         | 3.50         | 3.65         | 0.56           | 1.45         | 0.93         | 1.76         | 1.00         | 2.40         | 5.15         |            |              |

Varietal Improvement Programme-AICRP (Sugarcane)  
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**Table 2.4.32 No. of Shoots (000/ha) at 240 days**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha     | Kolhapur | Mandya       | Navsari       | Padegaon     | Perunallapalle | Pravaranagar  | Pugalur       | Pune         | Rudrur       | Samnerwadi   | Sanke shwar  | Thiruvalla | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|----------|--------------|---------------|--------------|----------------|---------------|---------------|--------------|--------------|--------------|--------------|------------|--------------|
| 1    | Co 11015          | 104.11       |              | 86.96        | 50.28        |          | 88.61        | 138.79        | 80.44        | 97.71          | 119.07        | 149.99        | 75.00        | 87.70        | 99.66        | 64.32        |            | 95.59        |
| 2    | Co 14005          | 114.06       |              | 94.14        | 56.25        |          | 97.50        | 131.53        | 110.53       | 145.92         | 112.90        | 196.97        | 97.39        | 116.79       | 110.33       | 99.95        |            | 114.17       |
| 3    | Co 15005          | 114.58       |              | 93.90        | 94.03        |          | 78.68        | 134.95        | 88.14        | 114.04         | 90.30         | 171.22        | 83.57        | 138.61       | 93.00        | 87.11        |            | 106.32       |
| 4    | Co 15006          | 91.20        |              | 84.03        | 84.31        |          | 98.47        | 139.21        | 88.08        | 111.96         | 82.69         | 185.60        | 80.17        | 118.33       | 90.66        | 83.88        |            | 102.97       |
| 5    | Co 15007          | 87.62        |              | 70.60        | 82.64        |          | 69.65        | 136.56        | 79.98        | 110.26         | 88.91         | 148.02        | 65.94        | 93.82        | 88.66        | 79.41        |            | 92.47        |
| 6    | Co 15009          | 84.43        |              | 84.80        | 60.14        |          | 67.71        | 131.54        | 92.59        | 111.80         | 112.20        | 156.72        | 85.11        | 88.43        | 103.33       | 79.21        |            | 96.77        |
| 7    | Co 15010          | 102.89       |              | 102.31       | 54.58        |          | 92.64        | 141.38        | 84.20        | 99.48          | 77.02         | 176.09        | 89.11        | 95.03        | 93.66        | 89.01        |            | 99.80        |
| 8    | Co 15017          | 110.19       |              | 93.36        | 66.11        |          | 87.50        | 131.49        | 96.47        | 113.81         | 99.76         | 188.27        | 91.19        | 98.59        | 93.00        | 91.99        |            | 104.75       |
| 9    | Co 15021          | 87.04        |              | 92.44        | 65.28        |          | 96.46        | 128.48        | 77.60        | 90.32          | 89.94         | 196.62        | 82.17        | 84.76        | 95.00        | 84.19        |            | 97.72        |
| 10   | CoSnk 15102       | 90.39        |              | 90.05        | 41.11        |          | 85.76        | 134.57        | 81.42        | 99.33          | 99.69         | 112.75        | 81.06        | 82.18        | 85.33        | 77.26        |            | 89.30        |
| 11   | CoN 15071         | 76.45        |              | 76.54        | 57.64        |          | 86.46        | 144.61        | 73.55        | 77.46          | 116.48        | 159.38        | 73.67        | 78.74        | 97.33        | 77.10        |            | 91.96        |
| 12   | PI 15131          | 82.99        |              | 74.77        | 83.33        |          | 86.18        | 128.90        | 78.36        | 95.33          | 92.34         | 196.85        | 71.94        | 75.31        | 95.66        | 64.89        |            | 94.37        |
|      | <b>Stds</b>       |              |              |              |              |          |              |               |              |                |               |               |              |              |              |              |            |              |
| 1    | Co 86032          | 84.20        |              | 103.24       | 55.42        |          | 93.13        | 131.73        | 88.54        | 132.59         | 117.23        | 164.14        | 84.39        | 99.57        | 105.00       | 82.29        |            | 103.19       |
| 2    | CoC 671           | 67.53        |              | 78.40        | 45.28        |          | 71.88        | 124.87        | 83.97        | 99.79          | 107.63        | 160.54        | 70.28        | 89.21        | 91.66        | 61.19        |            | 88.63        |
| 3    | Co 09004          | 110.65       |              | 88.97        | 49.31        |          | 82.85        | 128.96        | 77.84        | 105.18         | 131.35        | 158.22        | 84.84        | 92.19        | 82.33        | 72.64        |            | 97.33        |
|      | <b>Grand mean</b> | <b>87.71</b> |              | <b>87.63</b> | <b>63.04</b> |          | <b>85.56</b> | <b>133.84</b> | <b>85.45</b> | <b>107.00</b>  | <b>102.50</b> | <b>168.09</b> | <b>81.05</b> | <b>95.95</b> | <b>93.00</b> | <b>79.63</b> |            | <b>97.73</b> |
|      | SE                | 7.81         |              | 4.75         | 6.24         |          | 4.28         | 4.01          | 3.26         | 7.23           | 0.84          | 9.20          | 4.59         | 10.79        | 4.80         | 3.70         |            |              |
|      | CD                | 22.75        |              | 13.75        | 17.84        |          | 12.39        | NS            | 9.46         | 20.95          | 2.44          | 26.65         | 13.29        | 31.25        | 14.02        | 10.71        |            |              |
|      | CV                | 14.41        |              | 9.38         | 17.15        |          | 8.66         | 5.19          | 6.61         | 11.71          | 1.42          | 9.48          | 9.81         | 19.47        | 8.76         | 8.04         |            |              |

Varietal Improvement Programme-AICRP (Sugarcane)  
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**Table 2.4.33 Number of tillers ('000/ha) at 120 days**

| S No | Entries           | Coimbatore    | Basmathnagar | Belgaum       | Kawardha     | Kolhapur     | Mandya        | Navsari       | Padegao       | Perunallapalle | Pravarangar   | Pugalur       | Pune          | Rudrur        | Samnerwadi    | Sanke shwar   | Thiruvalla    | Mean          |
|------|-------------------|---------------|--------------|---------------|--------------|--------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1    | Co 11015          | 110.30        |              | 135.80        | 76.13        | 90.94        | 140.70        | 159.86        | 96.80         | 126.59         | 121.89        | 195.81        | 171.61        | 109.26        | 103.33        | 108.62        | 115.19        | <b>124.19</b> |
| 2    | Co 14005          | 121.99        |              | 214.04        | 75.03        | 116.79       | 169.52        | 146.89        | 151.90        | 170.09         | 117.39        | 244.18        | 228.22        | 185.01        | 99.66         | 186.08        | 136.94        | <b>157.58</b> |
| 3    | Co 15005          | 121.41        |              | 133.02        | 114.00       | 113.10       | 84.03         | 158.87        | 94.40         | 129.51         | 93.73         | 211.58        | 175.28        | 136.63        | 126.33        | 129.92        | 135.00        | <b>130.45</b> |
| 4    | Co 15006          | 94.85         |              | 111.34        | 79.64        | 96.60        | 150.90        | 159.54        | 133.10        | 163.32         | 85.60         | 231.77        | 185.28        | 158.68        | 99.00         | 163.14        | 99.17         | <b>134.13</b> |
| 5    | Co 15007          | 109.90        |              | 129.17        | 101.39       | 105.37       | 79.31         | 155.10        | 98.10         | 139.68         | 93.28         | 184.21        | 140.67        | 108.56        | 109.00        | 121.30        | 121.95        | <b>119.80</b> |
| 6    | Co 15009          | 92.25         |              | 141.67        | 83.21        | 120.48       | 108.13        | 159.50        | 114.10        | 158.00         | 117.41        | 195.34        | 155.06        | 118.11        | 128.66        | 122.99        | 101.29        | <b>127.75</b> |
| 7    | Co 15010          | 129.92        |              | 188.12        | 87.76        | 92.67        | 124.79        | 154.41        | 106.30        | 130.90         | 80.29         | 216.69        | 157.67        | 167.53        | 92.33         | 171.20        | 129.91        | <b>135.37</b> |
| 8    | Co 15017          | 103.30        |              | 196.53        | 94.59        | 104.56       | 100.14        | 146.55        | 122.50        | 151.23         | 104.72        | 241.74        | 172.00        | 155.27        | 110.33        | 167.60        | 106.48        | <b>138.50</b> |
| 9    | Co 15021          | 101.22        |              | 181.56        | 70.62        | 121.98       | 134.58        | 156.64        | 96.80         | 117.43         | 93.05         | 244.18        | 137.17        | 127.26        | 101.33        | 139.42        | 116.85        | <b>129.34</b> |
| 10   | CoSnk 15102       | 97.57         |              | 177.16        | 56.21        | 82.52        | 112.99        | 150.27        | 96.10         | 118.89         | 103.89        | 141.17        | 156.72        | 113.72        | 97.33         | 128.08        | 117.60        | <b>116.68</b> |
| 11   | CoN 15071         | 101.10        |              | 201.08        | 77.89        | 101.73       | 133.40        | 162.93        | 105.60        | 100.64         | 119.45        | 202.07        | 175.17        | 155.50        | 117.00        | 157.23        | 97.96         | <b>133.92</b> |
| 12   | PI 15131          | 97.51         |              | 208.56        | 114.78       | 104.90       | 165.28        | 150.72        | 103.90        | 130.52         | 96.79         | 232.81        | 173.05        | 145.43        | 99.00         | 167.45        | 104.45        | <b>139.68</b> |
|      | <b>Stds</b>       |               |              |               |              |              |               |               |               |                |               |               |               |               |               |               |               |               |
| 1    | Co 86032          | 116.32        |              | 213.12        | 70.69        | 78.88        | 143.75        | 155.14        | 107.90        | 171.48         | 119.95        | 207.29        | 184.94        | 116.09        | 120.00        | 155.39        | 113.24        | <b>138.28</b> |
| 2    | CoC 671           | 114.00        |              | 171.30        | 67.19        | 84.13        | 92.15         | 146.59        | 91.40         | 129.13         | 110.99        | 199.87        | 161.61        | 101.56        | 109.00        | 119.66        | 102.78        | <b>120.09</b> |
| 3    | Co 09004          | 108.85        |              | 158.95        | 69.64        | 79.28        | 142.01        | 154.65        | 89.80         | 118.27         | 134.63        | 194.53        | 170.56        | 109.78        | 82.33         | 116.27        | 108.79        | <b>122.56</b> |
|      | <b>Grand mean</b> | <b>107.62</b> |              | <b>170.76</b> | <b>82.58</b> | <b>99.60</b> | <b>125.44</b> | <b>154.51</b> | <b>107.20</b> | <b>137.04</b>  | <b>106.20</b> | <b>209.55</b> | <b>169.67</b> | <b>133.89</b> | <b>103.78</b> | <b>143.62</b> | <b>113.84</b> | <b>131.02</b> |
|      | SE                | 5.25          |              | 16.71         | 4.77         | 4.76         | 6.44          | 5.12          | 7.77          | 9.03           | 0.91          | 9.48          | 7.26          | 9.23          | 5.48          | 6.80          | 6.42          |               |
|      | CD                | 15.30         |              | 48.42         | 13.64        | 13.79        | 18.64         | NS            | 22.51         | 26.17          | 2.64          | 27.46         | 21.03         | 26.74         | 15.97         | 19.70         | 18.24         |               |
|      | CV                | 8.42          |              | 16.95         | 10.01        | 8.28         | 8.89          | 5.74          | 12.54         | 11.42          | 1.48          | 7.84          | 7.41          | 11.94         | 8.93          | 8.20          | 9.77          |               |

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**Table 2.4.34 Germination % at 30 days**

| S No | Entries           | Coimbatore   | Basmathnagar | Belgaum      | Kawardha     | Kolhapur     | Mandya       | Navsari      | Padegao      | Perunallapalle | Pravara      | Pugalur      | Pune         | Rudrur       | Samnerwadi   | Sanke shwar  | Thiruvalla   | Mean         |
|------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1    | Co 11015          | 69.58        |              | 32.02        | 46.53        | 34.43        | 42.67        | 43.74        | 37.92        | 59.72          | 27.06        | 54.75        | 46.61        | 40.94        | 48.30        | 27.62        | 59.80        | <b>44.78</b> |
| 2    | Co 14005          | 76.04        |              | 43.75        | 53.47        | 83.33        | 40.33        | 44.92        | 58.33        | 70.37          | 45.91        | 68.29        | 58.48        | 49.39        | 34.76        | 41.52        | 58.41        | <b>55.15</b> |
| 3    | Co 15005          | 63.23        |              | 37.11        | 59.38        | 48.44        | 39.00        | 41.91        | 37.92        | 59.26          | 29.17        | 78.13        | 53.57        | 49.50        | 47.36        | 41.40        | 64.58        | <b>50.00</b> |
| 4    | Co 15006          | 46.20        |              | 41.28        | 55.21        | 60.47        | 47.67        | 44.18        | 50.83        | 69.91          | 34.78        | 71.18        | 55.64        | 48.83        | 46.36        | 44.00        | 49.77        | <b>51.09</b> |
| 5    | Co 15007          | 52.55        |              | 42.52        | 62.85        | 50.81        | 40.33        | 44.67        | 58.75        | 69.39          | 35.55        | 68.52        | 63.34        | 36.44        | 44.00        | 43.60        | 59.41        | <b>51.52</b> |
| 6    | Co 15009          | 49.79        |              | 46.60        | 46.53        | 48.96        | 38.67        | 42.10        | 42.50        | 70.83          | 42.36        | 66.32        | 49.78        | 42.39        | 50.93        | 38.29        | 56.10        | <b>48.81</b> |
| 7    | Co 15010          | 51.72        |              | 61.11        | 50.35        | 45.78        | 42.00        | 43.75        | 58.33        | 64.12          | 33.78        | 64.12        | 53.75        | 53.00        | 37.66        | 52.71        | 61.81        | <b>51.60</b> |
| 8    | Co 15017          | 42.66        |              | 45.14        | 58.33        | 55.56        | 39.00        | 37.32        | 39.17        | 63.08          | 33.00        | 66.09        | 52.27        | 47.17        | 49.30        | 34.02        | 65.82        | <b>48.53</b> |
| 9    | Co 15021          | 46.25        |              | 44.52        | 39.58        | 52.84        | 46.00        | 45.83        | 37.50        | 49.13          | 29.18        | 73.26        | 50.62        | 48.78        | 42.13        | 34.83        | 60.65        | <b>46.74</b> |
| 10   | CoSnk 15102       | 46.82        |              | 52.24        | 32.64        | 34.43        | 40.33        | 48.70        | 28.33        | 62.27          | 37.56        | 43.75        | 48.77        | 36.94        | 50.46        | 34.14        | 65.82        | <b>44.21</b> |
| 11   | CoN 15071         | 60.47        |              | 55.32        | 53.13        | 67.30        | 47.00        | 51.94        | 48.75        | 61.92          | 53.96        | 61.34        | 60.61        | 47.78        | 45.23        | 38.18        | 51.93        | <b>53.66</b> |
| 12   | PI 15131          | 67.55        |              | 59.34        | 72.92        | 63.83        | 41.67        | 42.36        | 47.92        | 67.36          | 39.85        | 68.63        | 59.71        | 54.56        | 43.90        | 37.02        | 59.03        | <b>55.04</b> |
|      | <b>Stds</b>       |              |              |              |              |              |              |              |              |                |              |              |              |              |              |              |              |              |
| 1    | Co 86032          | 48.07        |              | 55.02        | 57.64        | 43.23        | 47.67        | 43.75        | 47.50        | 71.64          | 47.04        | 45.02        | 49.11        | 47.22        | 57.63        | 41.06        | 57.10        | <b>50.58</b> |
| 2    | CoC 671           | 48.65        |              | 60.65        | 46.46        | 38.14        | 37.67        | 40.28        | 48.33        | 54.69          | 42.58        | 60.65        | 48.08        | 50.50        | 45.93        | 32.99        | 58.10        | <b>47.58</b> |
| 3    | Co 09004          | 69.22        |              | 56.02        | 49.58        | 34.09        | 51.00        | 42.13        | 47.50        | 71.59          | 29.86        | 65.74        | 56.05        | 59.22        | 43.46        | 39.96        | 64.51        | <b>52.00</b> |
|      | <b>Grand mean</b> | <b>55.92</b> |              | <b>48.84</b> | <b>52.31</b> | <b>50.78</b> | <b>42.73</b> | <b>43.84</b> | <b>45.97</b> | <b>64.35</b>   | <b>37.44</b> | <b>63.72</b> | <b>53.76</b> | <b>47.51</b> | <b>49.01</b> | <b>38.76</b> | <b>59.52</b> | <b>50.30</b> |
|      | SE                | 4.17         |              | 4.35         | 4.06         | 3.78         | 2.22         | 2.09         | 5.23         | 1.60           | 1.54         | 4.31         | 1.12         | 4.19         | 3.39         | 2.38         | 2.66         |              |
|      | CD                | 12.16        |              | 12.61        | 11.62        | 10.95        | 6.43         | 6.06         | 15.18        | 4.63           | 4.46         | 12.49        | 3.24         | 12.13        | 9.88         | 6.90         | 7.57         |              |
|      | CV                | 12.94        |              | 15.43        | 13.46        | 12.89        | 9.00         | 8.26         | 19.72        | 4.31           | 7.13         | 11.72        | 3.60         | 15.27        | 12.82        | 10.65        | 7.75         |              |

**Table 2.4.35 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

|               | Coimbatore | Mandya               | Perumalapall | Pugalur  | Sameerwad | Sankeshwar | Thiruvalla | Belagavi | Kolhapur                 |
|---------------|------------|----------------------|--------------|----------|-----------|------------|------------|----------|--------------------------|
| Co 11015      | better     | Better               | On Par       | On Par   | better    | better     | On par     | On par   | Better                   |
| Co 14005      | better     | Better               | Better       | Average  | better    | better     | On par     | On par   | Better                   |
| Co 15005      | better     | Better               | Poor         | On Par   | On par    | Average    | Better     | On par   | Better                   |
| Co 15006      | Poor       | Better               | On Par       | On Par   | On par    | better     | On Par     | On par   | Better                   |
| Co 15007      | better     | Poor                 | Better       | On Par   | On par    | better     | On Par     | On par   | Better                   |
| Co 15009      | better     | Better               | Poor         | On Par   | Better    | better     | On Par     | better   | Better                   |
| Co 15010      | better     | On Par               | Better       | better   | On par    | better     | Better     | better   | On Par                   |
| Co 15017      | better     | Better               | On Par       | Average  | On par    | better     | On Par     | better   | On par                   |
| Co 15021      | better     | On Par               | On Par       | On Par   | On par    | Average    | On Par     | better   | Better                   |
| CoSnk 15102   | On par     | Poor                 | Better       | On Par   | On par    | On par     | On Par     | On Par   | Better                   |
| CoN 15071     | better     | Better               | On Par       | better   | On par    | better     | Better     | Better   | Better                   |
| PI 15131      | On par     | Better               | Better       | better   | On par    | better     | On Par     | On Par   | Better                   |
| Std1 Co 86032 | Best std   | Best std             |              | Average  | Best std  | better     | Best std   | Best std | Best std                 |
| Std2 CoC 671  | On par     | 2 <sup>nd</sup> best |              | Best std | On par    | Average    | On Par     | On Par   | 3 <sup>rd</sup> best std |
| Std3 Co 09004 | On par     | 3 <sup>rd</sup> best |              | On Par   | On par    | Best Std.  | On Par     | On Par   | 2 <sup>nd</sup> Best std |

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| No.                | Variety     | Navsari   | Pune      | Padegaon  | Rudrur    | Pravaranganagar | Tharsa | Kawardha  | Powerkheda |
|--------------------|-------------|-----------|-----------|-----------|-----------|-----------------|--------|-----------|------------|
| 1                  | Co 11015    | Good      | Good      | Good      | Very Good | Good            | -      | Excellent | Very Good  |
| 2                  | Co 14005    | Very Good | Very good | Good      | Good      | Very Good       | -      | Good      | Good       |
| 3                  | Co 15005    | Poor      | Average   | Average   | Good      | Good            | -      | Very good | Poor       |
| 4                  | Co 15006    | Very Good | Good      | Good      | Very Good | Average         | -      | Average   | Very Good  |
| 5                  | Co 15007    | Very Good | Very good | Poor      | Average   | Average         | -      | Good      | Average    |
| 6                  | Co 15009    | Good      | Excellent | Average   | Very Good | Very Good       | -      | Excellent | Excellent  |
| 7                  | Co 15010    | Good      | Very good | Poor      | Good      | Very Good       | -      | Very Good | Poor       |
| 8                  | Co 15017    | Poor      | Good      | Good      | Average   | Good            | -      | Very Good | Very Good  |
| 9                  | Co 15021    | Average   | Very good | Good      | Very Good | Good            | -      | Very Good | Very Good  |
| 10                 | CoSnk 15102 | Very Good | Good      | Poor      | Good      | Good            | -      | Average   | Average    |
| 11                 | CoN 15071   | Excellent | Excellent | Excellent | Very Good | Good            | -      | Good      | Good       |
| 12                 | PI 15131    | Good      | Good      | Good      | Good      | Very Good       | -      | Excellent | Good       |
| <b>Standards :</b> |             |           |           |           |           |                 |        | -         |            |
| 13                 | Co 86032    | Good      | Very good | Excellent | Very good | Average         | -      | Very good |            |
| 14                 | CoC 671     | Good      | Very good | Very good | Good      | Good            | -      | Excellent |            |
| 15                 | Co 09004    | Very Good | Very good | Good      | Good      | Good            | -      | Average   |            |



## 2.5. INITIAL VARIETAL TRIAL

|                      |  |
|----------------------|--|
| <b>Centres (17)</b>  | Coimbatore, Akola, Basmathnagar, Belgaum, Kawardha, Kohlapur, Mandya, Navsari, Padegaon, Permallapalle, Pravaranagar, Pugalur, Pune, Rudrur, Sameerwadi, Sankeshwar and Tiruvalla  |
| <b>Entries (18)</b>  | <ol style="list-style-type: none"> <li>1. Co 17001 (Co 0327 x Co 0218)</li> <li>2. Co 17002 (Co 99004 x Co 0403)</li> <li>3. Co 17003 (Co 11015 x Co 8347)</li> <li>4. Co 17004 (Co 8371 x CoV 92102)</li> <li>5. Co 17005 (Co 0303 x Co 0218)</li> <li>6. Co 17006 (Co 08002 x Co 97015)</li> <li>7. Co 17008 (Co 0240 x Co 0214)</li> <li>8. Co 17010 (Co 0240 x Co 0218)</li> <li>9. Co 17012 (Co 99006 x Co 0209)</li> <li>10. Co 17013 (C2-138 x C3-123)</li> <li>11. Co 17014 (Co 0240 x Co 0218)</li> <li>12. CoVC 17061 (Co 86011 x CoT 8201)</li> <li>13. CoN 17071 (86 V 96 GC)</li> <li>14. CoN 17072 (Co 8371 PC)</li> <li>15. MS 17081 (Co 8371 x CoV 92102)</li> <li>16. MS 17082 (CoM 0265 x Co 94008)</li> <li>17. CoVSI 17121 (Co 2000-10 PC)</li> <li>18. CoT 17366 (ISH 69 GC)</li> </ol> |
| <b>Standards (3)</b> | Co 86032, CoC 671 & Co 09004   |
| <b>Design</b>        | Randomized Block Design  |
| <b>Replications</b>  | 3  |
| <b>Plot size</b>     | Gross : 6.0 m x 6r x 1.20 m<br>Net : 5.0 m x 4r x 1.20 m   |
| <b>Bud rate</b>      | 12 buds per meter  |
| <b>Planting time</b> | 2020-21  |
| <b>Crop duration</b> | 12 months  |

**Results of the previous year:** The entries were under multiplication.

**Results of the current year:** Eighteen test entries and three standards (Co 86032, CoC 671 & Co 09004) were evaluated in randomized block design with three replications in seventeen locations. For CCS yield (t/ha), Co 86032 was the best standard with zonal mean yield of 17.08 t/ha. None of the entries performed better than Co 86032 across the locations. However the test entries, Co 17005 was the top ranking entry with mean yield of 16.26 t/ha followed by Co 17001 (15.97 t/ha) & MS 17082 (15.97 t/ha) across the locations. For cane yield (t/ha), MS 17082 recorded highest zonal mean yield of 123.51 t/ha followed by CoVC 17061 (120.07 t/ha) across the locations. The entry Co 17003 recorded the highest mean CCS% of 14.30 while the best standard CoC 671 recorded 14.16. For sucrose %, CoC 671 was the best standard with zonal mean of 20.22%. Among the test entries, Co 17003 recorded the mean zonal sucrose of 20.34% followed by Co 17005 (19.91%). The entry Co 17003 recorded numerically better sucrose % than the standard CoC 671 across the locations but were not numerically better than Co 86032 for cane yield. For identifying qualifying entry, no entry was identified from this trial considering Co 86032 for both cane yield (t/ha) and sucrose %. The data are presented in Tables 2.5.1 to 2.5.34.

Table 2.5.1 CCS yield at harvest (t/ha)

| S.No. | Entries                                    | Coimbatore   | Akola        | Basmath nagar | Belgaum      | Kawarda      | Kolhapur     | Manasa       | Navsari      | Padgaon      | Permallapalle | Pravara nagar | Pugajur      | Pune         | Rudhira      | Sameerwadi  | Sanke shwar  | Thiruvalla   | Mean         | Rank |
|-------|--|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|------|
| 1     | Co 17001                                   | 21.42        | 7.64         | 18.83         | 13.82        | 16.09        | 13.64        | 19.21        | 13.46        | 20.83        | 17.65         | 16.64         | 13.64        | 20.00        | 15.85        | 12.10       | 18.01        | 12.71        | 15.97        | 4    |
| 2     | Co 17002                                   | 12.32        | 8.48         | 18.33         | 15.99        | 17.07        | 12.29        | 16.23        | 14.41        | 16.68        | 17.49         | 17.95         | 14.43        | 19.44        | 18.61        | 10.40       | 18.28        | 12.05        | 15.32        |      |
| 3     | Co 17003                                   | 17.82        | 8.56         | 14.91         | 16.43        | 12.91        | 13.23        | 17.36        | 17.73        | 20.39        | 16.53         | 18.59         | 14.05        | 18.97        | 16.30        | 9.61        | 18.02        | 11.39        | 15.46        |      |
| 4     | Co 17004                                   | 22.16        | 7.34         | 20.09         | 16.76        | 13.86        | 12.80        | 17.98        | 13.95        | 17.65        | 19.29         | 17.17         | 11.98        | 20.47        | 19.29        | 8.27        | 17.09        | 11.92        | 15.77        | 5    |
| 5     | Co 17005                                   | 19.25        | 18.52        | 20.28         | 13.15        | 17.78        | 15.42        | 17.63        | 13.32        | 16.16        | 17.01         | 19.05         | 15.09        | 21.48        | 11.22        | 9.35        | 20.64        | 11.01        | 16.26        | 2    |
| 6     | Co 17006                                   | 16.85        | 11.16        | 14.06         | 11.43        | 12.73        | 13.17        | 11.55        | 13.81        | 16.36        | 11.30         | 19.39         | 13.36        | 11.06        | 13.08        | 9.14        | 13.16        | 11.66        | 13.13        |      |
| 7     | Co 17008                                   | 9.88         | 10.13        | 9.08          | 13.28        | 10.49        | 13.37        | 8.82         | 14.96        | 13.74        | 16.18         | 19.00         | 12.06        | 10.05        | 13.18        | 9.13        | 11.04        | 10.60        | 12.06        |      |
| 8     | Co 17010                                   | 17.20        | 9.70         | 16.64         | 15.33        | 17.02        | 12.53        | 14.33        | 13.97        | 13.39        | 15.91         | 15.47         | 15.27        | 18.43        | 12.22        | 9.34        | 18.70        | 12.42        | 14.58        |      |
| 9     | Co 17012                                   | 18.55        | 11.03        | 17.14         | 16.87        | 17.13        | 13.12        | 16.81        | 12.25        | 23.92        | 15.12         | 16.78         | 11.93        | 21.71        | 18.49        | 9.05        | 15.38        | 10.38        | 15.63        |      |
| 10    | Co 17013                                   | 19.68        | 10.29        | 18.25         | 12.33        | 12.02        | 12.33        | 15.83        | 13.19        | 21.19        | 15.61         | 18.50         | 13.33        | 14.24        | 13.99        | 11.79       | 16.38        | 9.50         | 14.61        |      |
| 11    | Co 17014                                   | 9.24         | 10.77        | 8.77          | 14.14        | 7.43         | 13.82        | 15.08        | 13.34        | 19.56        | 12.80         | 19.18         | 11.32        | 14.16        | 13.27        | 13.40       | 14.45        | 9.40         | 12.95        |      |
| 12    | CoVC 17061                                 | 16.89        | 11.24        | 17.47         | 17.32        | 14.92        | 13.33        | 19.83        | 12.90        | 16.68        | 15.72         | 18.74         | 11.01        | 20.45        | 17.95        | 9.02        | 17.65        | 11.26        | 15.43        |      |
| 13    | CoN 17071                                  | 10.10        | 10.14        | 17.24         | 14.55        | 9.83         | 15.56        | 9.14         | 13.62        | 18.23        | 13.90         | 21.42         | 11.43        | 17.28        | 14.42        | 14.00       | 18.20        | 10.92        | 14.12        |      |
| 14    | CoN 17072                                  | 17.78        | 10.41        | 16.58         | 13.65        | 16.10        | 9.98         | 9.85         | 12.43        | 13.22        | 17.42         | 20.74         | 12.04        | 9.98         | 14.83        | 15.72       | 16.36        | 9.01         | 13.89        |      |
| 15    | MS 17081                                   | 11.61        | 10.55        | 13.26         | 16.85        | 10.10        | 14.82        | 20.18        | 14.00        | 23.30        | 12.56         | 22.73         | 10.84        | 16.56        | 15.23        | 8.07        | 18.89        | 12.68        | 14.84        |      |
| 16    | MS 17082                                   | 16.57        | 9.79         | 18.75         | 17.04        | 16.31        | 17.90        | 14.95        | 16.97        | 24.21        | 16.21         | 21.05         | 12.36        | 19.68        | 11.29        | 10.67       | 18.23        | 9.57         | 15.97        | 4    |
| 17    | CoVSI 17121                                | 17.60        | 10.18        | 18.02         | 13.55        | 14.68        | 15.35        | 18.10        | 12.22        | 20.21        | 9.23          | 24.02         | 8.82         | 18.49        | 11.36        | 8.93        | 18.07        | 9.41         | 14.60        |      |
| 18    | CoT 17366                                  | 15.54        | 11.09        | 13.33         | 17.49        | 11.06        | 15.27        | 18.72        | 12.76        | 23.44        | 14.65         | 19.51         | 12.72        | 16.42        | 9.45         | 11.67       | 18.82        | 11.01        | 14.88        |      |
|       | <b>Stds</b>                                |              |              |               |              |              |              |              |              |              |               |               |              |              |              |             |              |              |              |      |
| 1     | Co 86032                                   | 16.65        | 15.25        | 19.08         | 14.95        | 18.45        | 15.49        | 22.37        | 14.25        | 22.42        | 18.76         | 22.71         | 16.19        | 17.70        | 15.41        | 8.05        | 20.12        | 12.47        | 17.08        | 1    |
| 2     | CoC 671                                    | 18.12        | 13.86        | 16.01         | 15.38        | 14.93        | 14.55        | 16.64        | 12.98        | 19.98        | 16.57         | 21.75         | 17.87        | 17.78        | 14.09        | 7.58        | 17.33        | 11.86        | 15.72        |      |
| 3     | Co 09004                                   | 19.41        | --           | 15.66         | 14.26        | 12.72        | 15.12        | 15.71        | 12.49        | 22.43        | 17.18         | 18.12         | 14.63        | 19.12        | 15.84        | 9.94        | 23.21        | 11.51        | 16.08        | 3    |
|       | <b>Mean</b>                                | <b>16.41</b> | <b>10.97</b> | <b>16.28</b>  | <b>14.98</b> | <b>13.98</b> | <b>13.96</b> | <b>16.02</b> | <b>13.76</b> | <b>19.24</b> | <b>15.63</b>  | <b>19.45</b>  | <b>13.07</b> | <b>17.31</b> | <b>14.54</b> | <b>8.52</b> | <b>17.52</b> | <b>11.08</b> | <b>14.87</b> |      |
|       | SE(m)                                      | 0.96         | 1.04         | 2.06          | 1.35         | 1.39         | 1.16         | 0.94         | 0.63         | 1.42         | 1.40          | 0.29          | 0.78         | 0.77         | 0.91         | 0.99        | 1.20         | 0.67         | 1.06         |      |
|       | CD   | 2.76         | 2.98         | 5.90          | 3.86         | 3.98         | 3.42         | 2.67         | 1.80         | 4.06         | 3.99          | 0.84          | 2.24         | 2.20         | 2.61         | 2.86        | 3.53         | 1.91         | 3.04         |      |
|       | CV   | 10.16        | 16.70        | 22.00         | 15.62        | 17.27        | 11.74        | 10.12        | 7.94         | 12.78        | 15.48         | 2.62          | 10.39        | 7.69         | 10.87        | 16.89       | 9.66         | 10.50        | 12.26        |      |
|       | <b>Qualifying entries in each location</b> |              |              |               |              |              |              |              |              |              |               |               |              |              |              |             |              |              |              |      |
|       | <b>1</b>                                   | Co 17004     | Co 17005     | -             | CoT 17366    | -            | MS 17082     | -            | Co 17003     | -            | -             | -             | -            | Co 17012     | Co 17004     | CoN 17072   | -            | -            | -            |      |
|       | <b>2</b>                                   | Co 17001     | -            | -             | MS 17082     | -            | -            | -            | MS 17082     | -            | -             | -             | -            | Co 17005     | Co 17002     | CoN 17071   | -            | -            | -            |      |
|       | <b>3</b>                                   | -            | -            | -             | -            | -            | -            | -            | -            | -            | -             | -             | -            | -            | Co 17012     | Co 17014    | -            | -            | -            |      |

**Number of locations where an entry recorded more than 10 percent improvement over the best standard:** Co 17001 (1), Co 17002 (1), Co 17003 (1), Co 17004 (2), Co 17005 (2), Co 17012 (2), Co 17014 (1), CoN 17072 (1) CoN 17071 (1) MS 17082 (3), CoT 17366 (1)

**Performance across locations:** Co 86032 was the best standard with mean CCS yield of 17.08 t/ha. None of the entries performed better than Co 86032 across the locations. However, among the test entries, Co 17005 was the top ranking entry with mean zonal yield of 16.26 t/ha followed by Co 17001 (15.97 t/ha) & MS 17082 (15.97 t/ha). Co 17005 recorded >10% improvement over the best standard Co 09004 at Pune (19.12 %).

**Table 2.5.2 Cane yield at harvest (t/ha)**

| S.No. | Entries                                    | Coim batore   | Akola        | Basmath nagar | Bel gaum      | Kaw arda      | Kolha pur     | Man dya       | Nav sari      | Pade gaon     | Permallla palle | Pravara nagar | Puga lur      | Pune rur      | Rud rur       | Sameer wadi  | Sanke shwar   | Thiru valla  | Mean          | Rank |
|-------|--|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|---------------|---------------|---------------|---------------|--------------|---------------|--------------|---------------|------|
| 1     | Co 17001                                   | 147.68        | 50.70        | 145.83        | 94.66         | 122.23        | 108.67        | 130.28        | 107.90        | 127.75        | 134.22          | 120.66        | 133.92        | 132.28        | 106.33        | 91.86        | 107.00        | 98.77        | 115.34        |      |
| 2     | Co 17002                                   | 93.42         | 56.19        | 140.33        | 108.20        | 139.27        | 95.06         | 115.46        | 115.79        | 107.26        | 141.06          | 127.08        | 132.60        | 133.85        | 133.56        | 86.65        | 122.00        | 97.38        | 114.42        |      |
| 3     | Co 17003                                   | 111.96        | 56.32        | 113.06        | 114.93        | 99.90         | 107.87        | 117.78        | 131.09        | 125.40        | 121.61          | 118.46        | 129.79        | 126.38        | 100.10        | 74.80        | 108.00        | 88.97        | 108.61        |      |
| 4     | Co 17004                                   | 157.67        | 50.01        | 151.55        | 118.35        | 119.69        | 104.57        | 123.80        | 130.30        | 116.22        | 149.68          | 122.64        | 118.59        | 145.91        | 142.18        | 64.11        | 125.50        | 94.21        | 119.71        | 4    |
| 5     | Co 17005                                   | 133.33        | 111.67       | 143.14        | 91.54         | 132.81        | 118.50        | 116.76        | 108.61        | 108.46        | 123.17          | 132.82        | 127.59        | 136.69        | 83.98         | 68.62        | 137.00        | 88.65        | 115.49        |      |
| 6     | Co 17006                                   | 121.53        | 73.58        | 105.43        | 78.20         | 72.16         | 103.23        | 79.17         | 111.29        | 115.92        | 89.36           | 138.01        | 112.15        | 76.62         | 91.70         | 69.48        | 83.50         | 86.11        | 94.56         |      |
| 7     | Co 17008                                   | 71.87         | 67.38        | 66.72         | 93.70         | 79.37         | 126.98        | 61.57         | 111.22        | 92.16         | 128.21          | 128.05        | 120.13        | 64.89         | 94.34         | 66.83        | 74.00         | 84.96        | 90.15         |      |
| 8     | Co 17010                                   | 125.55        | 63.49        | 121.04        | 108.47        | 115.86        | 97.55         | 96.57         | 116.29        | 90.11         | 122.58          | 117.69        | 139.90        | 120.70        | 89.44         | 66.39        | 118.50        | 99.15        | 106.43        |      |
| 9     | Co 17012                                   | 139.88        | 72.78        | 128.42        | 119.43        | 148.56        | 108.59        | 113.70        | 105.69        | 156.19        | 132.32          | 119.35        | 121.92        | 151.77        | 128.79        | 72.60        | 102.50        | 83.33        | 117.99        |      |
| 10    | Co 17013                                   | 135.43        | 71.40        | 133.55        | 87.27         | 101.51        | 101.77        | 108.61        | 107.82        | 148.07        | 125.98          | 131.87        | 128.08        | 100.47        | 98.40         | 96.92        | 116.50        | 80.94        | 110.27        |      |
| 11    | Co 17014                                   | 74.94         | 73.96        | 69.15         | 100.00        | 64.43         | 113.47        | 110.28        | 112.26        | 128.72        | 110.31          | 131.65        | 107.68        | 97.17         | 103.78        | 97.91        | 90.50         | 84.34        | 98.27         | 3    |
| 12    | CoVC 17061                                 | 124.01        | 74.99        | 131.43        | 124.34        | 143.55        | 119.39        | 139.26        | 118.92        | 122.88        | 137.36          | 129.42        | 103.87        | 148.59        | 126.91        | 83.03        | 129.00        | 84.18        | 120.07        |      |
| 13    | CoN 17071                                  | 75.90         | 67.67        | 131.61        | 103.55        | 105.88        | 129.41        | 66.11         | 112.51        | 117.44        | 105.44          | 145.36        | 107.79        | 122.77        | 109.43        | 113.34       | 123.00        | 87.65        | 107.34        |      |
| 14    | CoN 17072                                  | 139.69        | 72.05        | 131.47        | 114.78        | 122.55        | 86.21         | 77.96         | 116.59        | 97.76         | 139.57          | 135.95        | 132.61        | 74.96         | 112.60        | 134.54       | 123.00        | 77.16        | 111.14        |      |
| 15    | MS 17081                                   | 100.08        | 71.59        | 103.09        | 128.19        | 114.53        | 138.10        | 156.30        | 125.21        | 161.40        | 115.86          | 148.62        | 120.07        | 126.20        | 113.54        | 74.93        | 130.00        | 96.84        | 119.09        | 5    |
| 16    | MS 17082                                   | 119.43        | 64.21        | 144.17        | 123.36        | 152.22        | 150.82        | 101.02        | 143.73        | 163.16        | 129.57          | 138.87        | 144.69        | 139.25        | 89.89         | 83.26        | 129.00        | 83.02        | 123.51        | 2    |
| 17    | CoVSI 17121                                | 130.06        | 68.33        | 137.70        | 98.48         | 124.56        | 118.96        | 123.15        | 107.22        | 137.84        | 77.49           | 150.67        | 97.37         | 126.12        | 83.19         | 71.16        | 120.00        | 77.16        | 108.79        |      |
| 18    | CoT 17366                                  | 113.93        | 75.53        | 100.65        | 131.48        | 102.75        | 126.67        | 131.02        | 112.24        | 155.63        | 120.83          | 139.01        | 126.94        | 117.61        | 74.14         | 102.96       | 136.50        | 89.81        | 115.16        |      |
|       | <b>Stds</b>                                |               |              |               |               |               |               |               |               |               |                 |               |               |               |               |              |               |              |               |      |
| 1     | Co 86032                                   | 121.75        | 94.40        | 134.51        | 113.51        | 146.19        | 126.02        | 153.52        | 104.84        | 156.68        | 140.19          | 155.02        | 133.01        | 123.59        | 117.42        | 78.67        | 138.50        | 95.37        | 125.48        | 1    |
| 2     | CoC 671                                    | 115.95        | 90.42        | 125.15        | 110.19        | 114.24        | 110.94        | 110.65        | 95.84         | 140.12        | 120.70          | 137.14        | 157.42        | 111.02        | 96.08         | 64.94        | 114.00        | 88.66        | 111.97        |      |
| 3     | Co 09004                                   | 125.43        | --           | 116.41        | 104.08        | 96.95         | 111.77        | 109.81        | 99.57         | 142.47        | 135.31          | 129.44        | 127.99        | 125.70        | 103.42        | 86.56        | 135.50        | 89.74        | 115.01        |      |
|       | <b>Mean</b>                                | <b>118.07</b> | <b>72.42</b> | <b>122.59</b> | <b>107.94</b> | <b>110.84</b> | <b>114.50</b> | <b>111.56</b> | <b>114.04</b> | <b>129.13</b> | <b>124.24</b>   | <b>133.22</b> | <b>124.95</b> | <b>119.17</b> | <b>104.72</b> | <b>76.72</b> | <b>117.31</b> | <b>88.40</b> | <b>111.17</b> |      |
|       | SE(m)                                      | 6.20          | 6.89         | 15.70         | 9.35          | 10.11         | 9.25          | 6.36          | 4.31          | 8.39          | 10.35           | 1.36          | 6.81          | 4.96          | 6.45          | 7.69         | 8.40          | 4.30         |               |      |
|       | CV   | 10.19         | 19.71        | 44.89         | 26.71         | 28.89         | 27.29         | 18.18         | 12.31         | 23.98         | 29.58           | 3.91          | 19.48         | 14.18         | 18.45         | 22.08        | 24.77         | 12.22        |               |      |
|       |  | 13.96         | 16.72        | 22.22         | 15.00         | 15.79         | 11.43         | 9.88          | 6.54          | 11.25         | 14.43           | 1.77          | 9.45          | 7.21          | 10.68         | 16.09        | 10.12         | 8.43         |               |      |
|       | <b>Qualifying entries in each location</b> |               |              |               |               |               |               |               |               |               |                 |               |               |               |               |              |               |              |               |      |
|       | 1  | Co 17004      | Co 17005     | Co 17004      | CoT 17366     | -             | MS 17082      | -             | MS 17082      | -             | -               | -             | -             | Co 17012      | Co 17004      | CoN 17072    | -             | -            |               |      |
|       | 2  | Co 17001      | -            | -             | MS 17081      | -             | -             | -             | Co 17003      | -             | -               | -             | -             | CoVC 17061    | Co 17002      | CoN 17071    | -             | -            |               |      |
|       | 3  | Co 17012      | -            | -             | -             | -             | -             | -             | Co 17004      | -             | -               | -             | -             | Co 17004      | -             | CoT 17366    | -             | -            |               |      |

**Number of locations where an entry recorded more than 10 percent improvement over the best standard:** Co 17004 (5), Co 17012 (2), MS 17082 (2), CoT 17366 (2), Co 17001 (1), Co 17002 (1), Co 17003 (1), Co 17005 (1), CoN 17072 (1), CoN 17071 (1), MS 17081 (1), MS 17082 (2), CoT 17366 (2), Co 17001 (1), Co 17002 (1), Co 17004 (1), CoVC 17061 (1)

**Performance across locations:** Among the standards, Co 86032 was the best standard with zonal mean yield of 125.48 t/ha and none of the entries was better than Co 86032. However, MS 17082 recorded the highest zonal mean yield of 123.51 t/ha followed by CoVC 17061 (120.07 t/ha). The entries Co 17004 (119.71 t/ha) and MS 17081 (119.09 t/ha) were in the third and fourth positions respectively in the zone. Co 17004 was the highest cane yielding entry with >10 % improvement over the best standards at five locations.

Table 2.5.3 CCS % at harvest

| S.No | Entries                                    | Coim batore  | Akola        | Basmath nagar | Bel gaum     | Kaw arda     | Kolha pur    | Man dya      | Nav sari     | Pade gaon    | Permallia palle | Pravara nagar | Puga lur     | Pune         | Rud rur      | Sameer wadi  | Sanke shwar  | Thiru valla  | Mean         | Rank |
|------|--|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| 1    | Co 17001                                   | 14.52        | 15.00        | 12.92         | 14.56        | 12.91        | 12.61        | 14.77        | 12.49        | 16.30        | 13.16           | 13.79         | 10.21        | 15.14        | 14.91        | 13.14        | 16.84        | 12.89        | 13.89        | 5    |
| 2    | Co 17002                                   | 13.18        | 15.08        | 13.07         | 14.77        | 12.85        | 12.92        | 14.06        | 12.43        | 15.55        | 12.39           | 14.14         | 10.14        | 14.50        | 13.93        | 12.00        | 15.02        | 12.36        | 13.44        |      |
| 3    | Co 17003                                   | 15.93        | 15.16        | 13.37         | 14.21        | 13.95        | 12.26        | 14.77        | 13.51        | 16.26        | 13.60           | 15.70         | 10.81        | 15.03        | 16.29        | 12.85        | 16.67        | 12.81        | 14.30        | 1    |
| 4    | Co 17004                                   | 14.05        | 14.66        | 13.26         | 14.13        | 12.08        | 12.24        | 14.52        | 10.70        | 15.13        | 12.87           | 14.00         | 9.84         | 14.04        | 13.56        | 12.90        | 13.64        | 12.61        | 13.19        |      |
| 5    | Co 17005                                   | 14.44        | 16.60        | 14.04         | 14.51        | 13.49        | 12.93        | 15.07        | 12.27        | 14.92        | 13.82           | 14.35         | 10.94        | 15.73        | 13.37        | 13.63        | 15.08        | 12.40        | 13.98        | 4    |
| 6    | Co 17006                                   | 13.86        | 15.17        | 13.44         | 14.64        | 14.32        | 12.78        | 14.59        | 12.40        | 14.19        | 12.63           | 14.05         | 10.94        | 14.46        | 14.27        | 13.16        | 15.75        | 13.54        | 13.78        |      |
| 7    | Co 17008                                   | 13.74        | 15.03        | 13.61         | 14.18        | 12.93        | 10.60        | 14.30        | 13.44        | 14.89        | 12.60           | 14.85         | 9.77         | 15.48        | 13.96        | 13.66        | 14.93        | 12.49        | 13.56        |      |
| 8    | Co 17010                                   | 13.70        | 15.30        | 13.70         | 14.13        | 14.06        | 12.95        | 14.83        | 12.03        | 14.86        | 12.97           | 13.15         | 10.92        | 15.26        | 13.66        | 14.06        | 15.82        | 12.53        | 13.76        |      |
| 9    | Co 17012                                   | 13.24        | 15.16        | 13.41         | 14.14        | 12.42        | 12.07        | 14.78        | 11.60        | 15.31        | 11.36           | 14.06         | 9.78         | 14.31        | 14.35        | 12.45        | 15.06        | 12.50        | 13.29        |      |
| 10   | Co 17013                                   | 14.53        | 14.46        | 13.66         | 14.13        | 12.72        | 12.15        | 14.62        | 12.24        | 14.29        | 12.37           | 14.03         | 10.15        | 14.18        | 14.21        | 12.19        | 14.03        | 11.73        | 13.28        |      |
| 11   | Co 17014                                   | 12.34        | 14.61        | 12.70         | 14.13        | 12.03        | 12.18        | 13.69        | 11.87        | 15.22        | 11.65           | 14.58         | 9.62         | 14.55        | 12.79        | 13.68        | 15.95        | 11.15        | 13.10        |      |
| 12   | CoVC 17061                                 | 13.64        | 14.98        | 13.28         | 13.90        | 10.89        | 11.16        | 14.25        | 10.85        | 13.57        | 11.48           | 14.48         | 10.60        | 13.77        | 14.14        | 10.87        | 13.63        | 13.35        | 12.87        |      |
| 13   | CoN 17071                                  | 13.26        | 15.02        | 13.15         | 14.05        | 10.49        | 11.99        | 13.80        | 12.10        | 15.52        | 13.16           | 14.73         | 10.28        | 14.06        | 13.18        | 12.33        | 14.80        | 12.36        | 13.19        |      |
| 14   | CoN 17072                                  | 12.72        | 14.56        | 12.73         | 11.87        | 13.20        | 11.60        | 12.66        | 10.65        | 13.54        | 12.50           | 15.26         | 8.98         | 13.30        | 13.17        | 11.69        | 13.32        | 11.75        | 12.56        |      |
| 15   | MS 17081                                   | 11.61        | 14.79        | 13.03         | 13.13        | 10.35        | 10.76        | 12.91        | 11.18        | 14.41        | 10.87           | 15.30         | 9.02         | 13.13        | 13.41        | 10.80        | 14.51        | 13.08        | 12.49        |      |
| 16   | MS 17082                                   | 13.87        | 15.22        | 12.98         | 13.81        | 11.10        | 11.87        | 14.80        | 11.81        | 14.83        | 12.45           | 15.16         | 8.54         | 14.11        | 12.56        | 12.81        | 14.18        | 11.46        | 13.03        |      |
| 17   | CoVSI 17121                                | 13.52        | 14.89        | 13.09         | 13.76        | 11.64        | 12.88        | 14.67        | 11.39        | 14.68        | 11.89           | 15.96         | 8.75         | 14.66        | 13.66        | 12.45        | 15.07        | 12.20        | 13.24        |      |
| 18   | CoT 17366                                  | 13.65        | 14.69        | 13.44         | 13.32        | 12.24        | 12.07        | 14.31        | 11.36        | 15.06        | 12.13           | 14.04         | 10.01        | 13.96        | 12.76        | 11.33        | 13.79        | 12.27        | 12.97        |      |
|      | <b>Stds</b>                                |              |              |               |              |              |              |              |              |              |                 |               |              |              |              |              |              |              |              |      |
| 1    | Co 86032                                   | 13.67        | 16.20        | 14.15         | 13.17        | 13.99        | 12.30        | 14.57        | 13.58        | 14.27        | 13.34           | 14.65         | 11.61        | 14.31        | 13.12        | 13.44        | 14.56        | 13.08        | 13.77        |      |
| 2    | CoC 671                                    | 15.62        | 15.29        | 12.75         | 13.96        | 14.69        | 13.10        | 14.99        | 13.56        | 14.39        | 13.74           | 15.86         | 11.34        | 16.00        | 14.66        | 12.10        | 15.25        | 13.37        | 14.16        | 2    |
| 3    | Co 09004                                   | 15.44        | --           | 13.51         | 13.70        | 13.15        | 13.50        | 14.32        | 12.52        | 15.78        | 12.69           | 14.00         | 10.85        | 15.22        | 15.31        | 14.10        | 17.13        | 12.84        | 14.00        | 3    |
|      | <b>Mean</b>                                | <b>13.83</b> | <b>15.10</b> | <b>13.30</b>  | <b>13.91</b> | <b>12.64</b> | <b>12.23</b> | <b>14.35</b> | <b>12.09</b> | <b>14.90</b> | <b>12.56</b>    | <b>14.57</b>  | <b>10.16</b> | <b>14.53</b> | <b>13.87</b> | <b>13.21</b> | <b>15.00</b> | <b>12.51</b> | <b>13.46</b> |      |
|      | SE(m)                                      | 0.24         | 0.33         | 0.49          | 0.34         | 0.48         | 0.45         | 0.27         | 0.22         | 0.53         | 0.28            | 0.16          | 0.15         | 0.23         | 0.09         | 0.43         | 0.45         | 0.40         | 0.33         |      |
|      | CD   | 0.68         | 0.95         | NS            | 0.97         | 1.38         | 1.33         | 0.77         | 0.64         | 1.51         | 0.79            | 0.46          | 0.43         | 0.65         | 0.26         | 1.24         | 1.33         | 1.12         | 0.91         |      |
|      | CV   | 2.98         | 3.81         | 6.34          | 4.22         | 6.64         | 5.22         | 3.25         | 3.20         | 6.14         | 3.83            | 1.91          | 2.54         | 2.69         | 1.16         | 5.94         | 4.25         | 5.47         | 4.16         |      |
|      | <b>Qualifying entries in each location</b> |              |              |               |              |              |              |              |              |              |                 |               |              |              |              |              |              |              |              |      |
|      | 1  | -            | -            | -             | Co 17002     | -            | -            | -            | -            | -            | -               | -             | -            | -            | Co 17003     | -            | -            | -            | -            |      |
|      | 2  | -            | -            | -             | -            | -            | -            | -            | -            | -            | -               | -             | -            | -            | -            | -            | -            | -            | -            |      |
|      | 3  | -            | -            | -             | -            | -            | -            | -            | -            | -            | -               | -             | -            | -            | -            | -            | -            | -            | -            |      |

Number of locations where an entry recorded more than 5 % improvement over the best standard: Co 17002 (1), Co 17003 (1)

Performance across locations: The entry Co 17003 recorded the highest mean CCS% of 14.30 while the best standard CoC 671 recorded 14.16. The entries Co 17002 and Co 17003 recorded more than 5 % improvement over the best standard at Belgaum and Rudrur respectively.

**Table 2.5.4 Sucrose % at harvest**

| S.No. | Entries                                    | Coimbatore   | Akola        | Basmath nagar | Belgaum      | Kawarda      | Kolhapur     | Man-dya      | Navsari      | Padegaon     | Permallapalle | Pravara nagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla   | Mean         | Rank |
|-------|--|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| 1     | Co 17001                                   | 20.58        | 21.09        | 18.49         | 20.61        | 18.85        | 19.00        | 20.76        | 17.98        | 22.83        | 18.87         | 19.86         | 14.99        | 20.99        | 20.91        | 18.80        | 23.97        | 18.43        | 19.82        | 5    |
| 2     | Co 17002                                   | 19.03        | 20.91        | 18.67         | 20.63        | 18.73        | 18.98        | 19.76        | 18.00        | 21.92        | 17.78         | 20.18         | 14.97        | 20.20        | 19.67        | 17.39        | 21.55        | 17.69        | 19.18        |      |
| 3     | Co 17003                                   | 22.42        | 20.89        | 19.05         | 20.35        | 20.19        | 18.56        | 20.86        | 19.34        | 22.78        | 19.55         | 21.86         | 15.78        | 20.74        | 22.77        | 18.63        | 23.67        | 18.35        | 20.34        | 1    |
| 4     | Co 17004                                   | 20.10        | 20.42        | 18.83         | 20.05        | 17.79        | 18.55        | 20.52        | 15.84        | 21.40        | 18.42         | 19.59         | 14.49        | 19.45        | 19.19        | 18.53        | 19.77        | 18.05        | 18.88        |      |
| 5     | Co 17005                                   | 20.42        | 22.86        | 19.93         | 20.58        | 19.51        | 19.44        | 21.38        | 17.88        | 21.11        | 19.80         | 20.05         | 16.03        | 21.81        | 18.79        | 19.64        | 21.53        | 17.76        | 19.91        | 4    |
| 6     | Co 17006                                   | 19.82        | 20.89        | 19.22         | 20.74        | 20.69        | 19.32        | 20.55        | 17.92        | 20.26        | 18.11         | 19.82         | 15.89        | 20.11        | 19.95        | 18.94        | 22.48        | 19.39        | 19.65        |      |
| 7     | Co 17008                                   | 19.54        | 21.03        | 19.44         | 20.08        | 18.78        | 16.33        | 20.13        | 19.27        | 21.07        | 18.19         | 20.88         | 14.31        | 21.40        | 19.63        | 19.55        | 21.31        | 17.91        | 19.34        |      |
| 8     | Co 17010                                   | 19.44        | 21.22        | 19.40         | 20.06        | 20.33        | 19.26        | 20.90        | 17.43        | 20.83        | 18.57         | 18.67         | 15.84        | 21.00        | 19.22        | 20.09        | 22.48        | 17.92        | 19.57        |      |
| 9     | Co 17012                                   | 18.91        | 21.02        | 19.12         | 19.95        | 18.13        | 18.14        | 20.96        | 16.74        | 21.44        | 16.34         | 20.07         | 14.35        | 19.83        | 20.12        | 18.07        | 21.30        | 17.90        | 18.96        |      |
| 10    | Co 17013                                   | 20.55        | 20.06        | 19.48         | 19.99        | 18.53        | 18.35        | 20.63        | 17.74        | 20.42        | 17.83         | 19.78         | 15.07        | 19.60        | 19.93        | 17.57        | 20.29        | 16.79        | 18.98        |      |
| 11    | Co 17014                                   | 17.68        | 20.19        | 17.87         | 20.02        | 17.62        | 18.35        | 19.33        | 17.36        | 21.32        | 16.95         | 20.44         | 14.18        | 20.14        | 18.08        | 19.55        | 22.67        | 15.97        | 18.69        |      |
| 12    | CoVC 17061                                 | 19.48        | 20.63        | 18.95         | 19.66        | 16.13        | 17.01        | 20.18        | 16.03        | 19.25        | 16.57         | 20.66         | 15.57        | 19.21        | 19.70        | 15.82        | 19.47        | 19.10        | 18.44        |      |
| 13    | CoN 17071                                  | 18.71        | 20.74        | 18.89         | 20.00        | 15.73        | 18.12        | 19.43        | 17.47        | 21.73        | 18.89         | 20.78         | 15.06        | 19.72        | 18.75        | 18.04        | 21.05        | 17.68        | 18.87        |      |
| 14    | CoN 17072                                  | 18.04        | 20.29        | 18.37         | 16.92        | 18.98        | 17.86        | 17.86        | 15.83        | 19.46        | 17.99         | 21.59         | 13.31        | 18.62        | 18.75        | 16.99        | 19.03        | 16.79        | 18.04        |      |
| 15    | MS 17081                                   | 16.72        | 20.42        | 18.86         | 18.77        | 15.59        | 16.64        | 18.18        | 16.23        | 20.31        | 15.67         | 21.46         | 13.14        | 18.13        | 18.98        | 15.58        | 20.69        | 18.72        | 17.89        |      |
| 16    | MS 17082                                   | 19.84        | 21.02        | 18.41         | 19.48        | 16.59        | 18.01        | 20.85        | 17.26        | 20.92        | 17.93         | 21.30         | 12.56        | 19.83        | 17.87        | 18.49        | 20.01        | 16.42        | 18.63        |      |
| 17    | CoVSI 17121                                | 19.50        | 20.56        | 18.18         | 19.65        | 17.02        | 19.43        | 20.63        | 16.81        | 20.91        | 17.11         | 22.37         | 12.93        | 20.44        | 19.22        | 18.11        | 21.31        | 17.46        | 18.92        |      |
| 18    | CoT 17366                                  | 19.38        | 20.37        | 19.11         | 19.03        | 17.96        | 18.24        | 20.14        | 16.62        | 21.30        | 17.40         | 19.80         | 14.73        | 19.57        | 18.19        | 16.64        | 19.78        | 17.54        | 18.58        |      |
|       | <b>Stds</b>                                |              |              |               |              |              |              |              |              |              |               |               |              |              |              |              |              |              |              |      |
| 1     | Co 86032                                   | 19.39        | 22.37        | 19.71         | 18.70        | 20.20        | 18.56        | 20.53        | 19.39        | 20.41        | 19.11         | 20.70         | 17.02        | 19.98        | 18.58        | 19.30        | 20.88        | 18.73        | 19.62        |      |
| 2     | CoC 671                                    | 22.05        | 21.40        | 18.33         | 20.16        | 20.90        | 19.48        | 21.27        | 19.40        | 20.61        | 19.69         | 22.25         | 16.52        | 22.12        | 20.86        | 17.74        | 21.78        | 19.15        | 20.22        | 2    |
| 3     | Co 09004                                   | 21.92        | --           | 18.79         | 19.68        | 19.23        | 20.21        | 20.25        | 18.29        | 22.17        | 18.22         | 19.95         | 15.98        | 21.10        | 21.70        | 20.30        | 23.97        | 18.42        | 20.01        | 3    |
|       | <b>Mean</b>                                | <b>19.69</b> | <b>20.91</b> | <b>18.91</b>  | <b>19.77</b> | <b>18.45</b> | <b>18.47</b> | <b>20.24</b> | <b>17.56</b> | <b>21.07</b> | <b>18.05</b>  | <b>20.57</b>  | <b>14.89</b> | <b>20.19</b> | <b>19.56</b> | <b>19.11</b> | <b>21.38</b> | <b>17.91</b> | <b>19.22</b> |      |
|       | SE(m)                                      | 0.30         | 0.46         | 0.51          | 0.44         | 0.61         | 0.54         | 0.37         | 0.30         | 0.62         | 0.38          | 0.17          | 0.19         | 0.29         | 0.11         | 0.58         | 0.58         | 0.56         |              |      |
|       | CD   | 0.87         | 1.32         | NS            | 1.26         | 1.75         | 1.60         | 1.07         | 0.85         | 1.78         | 1.10          | 0.48          | 0.55         | 0.83         | 0.31         | 1.69         | 1.71         | 1.59         |              |      |
|       | CV   | 2.68         | 3.81         | 4.67          | 3.87         | 5.75         | 4.15         | 3.20         | 2.92         | 5.12         | 3.68          | 1.43          | 2.23         | 2.48         | 0.96         | 5.58         | 3.83         | 5.42         |              |      |
|       | <b>Qualifying entries in each location</b> |              |              |               |              |              |              |              |              |              |               |               |              |              |              |              |              |              |              |      |
|       | 1  | -            | -            | -             | -            | -            | -            | -            | -            | -            | -             | -             | -            | -            | -            | -            | -            | -            | -            | -    |
|       | 2  | -            | -            | -             | -            | -            | -            | -            | -            | -            | -             | -             | -            | -            | -            | -            | -            | -            | -            | -    |
|       | 3  | -            | -            | -             | -            | -            | -            | -            | -            | -            | -             | -             | -            | -            | -            | -            | -            | -            | -            | -    |

**Number of locations where an entry recorded more than 5 % improvement over the best standard: None.**

**Performance across location:** CoC 671 was the best standard with zonal mean of 20.22%. Among the test entries, Co 17003 recorded the mean zonal sucrose of 20.34% followed by Co 17005 with zonal mean sucrose of 19.91%. None of the test entries recorded more than 5% improvement over the best standard across the locations.

Table 2.5.5 Brix % at harvest

| S.No. | Entries     | Coimbatore   | Akola        | Basmath nagar | Belgaum      | Kawarda      | Kolhapur     | Man-dya      | Navsari      | Padegaon     | Permallapalle | Pravara nagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla   | Mean         |
|-------|-------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | Co 17001    | 22.33        | 22.47        | 21.07         | 22.28        | 21.76        | 23.30        | 22.13        | 20.13        | 24.09        | 21.00         | 22.24         | 17.49        | 22.25        | 22.11        | 20.81        | 26.23        | 20.37        | 21.89        |
| 2     | Co 17002    | 21.48        | 21.56        | 21.19         | 21.61        | 21.53        | 22.15        | 21.07        | 20.43        | 23.46        | 19.83         | 22.21         | 17.67        | 21.70        | 21.13        | 19.78        | 23.97        | 19.60        | 21.20        |
| 3     | Co 17003    | 23.92        | 21.17        | 21.53         | 22.54        | 22.91        | 22.95        | 22.47        | 21.40        | 24.02        | 21.87         | 22.71         | 18.19        | 22.06        | 23.89        | 21.22        | 25.73        | 20.33        | 22.29        |
| 4     | Co 17004    | 22.23        | 21.27        | 21.11         | 21.78        | 20.89        | 23.00        | 22.13        | 18.80        | 23.06        | 20.40         | 20.61         | 17.00        | 20.64        | 20.71        | 20.67        | 22.47        | 20.00        | 20.99        |
| 5     | Co 17005    | 22.02        | 23.17        | 22.32         | 22.31        | 22.10        | 23.75        | 23.27        | 20.57        | 22.81        | 22.00         | 21.02         | 18.64        | 23.19        | 20.00        | 22.06        | 23.72        | 19.67        | 21.92        |
| 6     | Co 17006    | 21.89        | 21.17        | 21.85         | 22.44        | 23.38        | 23.85        | 22.00        | 20.23        | 22.31        | 20.13         | 21.24         | 18.14        | 21.56        | 20.98        | 21.23        | 24.73        | 21.50        | 21.68        |
| 7     | Co 17008    | 21.31        | 22.14        | 22.05         | 21.74        | 21.43        | 20.85        | 21.53        | 21.40        | 22.75        | 20.53         | 22.21         | 16.60        | 22.59        | 20.89        | 21.61        | 23.47        | 19.90        | 21.35        |
| 8     | Co 17010    | 21.12        | 21.87        | 21.61         | 21.81        | 23.01        | 23.05        | 22.40        | 19.80        | 22.02        | 20.60         | 20.31         | 18.04        | 21.95        | 20.49        | 22.18        | 24.48        | 19.80        | 21.44        |
| 9     | Co 17012    | 20.84        | 21.67        | 21.60         | 21.41        | 20.91        | 22.15        | 22.80        | 18.87        | 22.60        | 18.30         | 22.11         | 16.72        | 21.08        | 21.29        | 20.60        | 22.97        | 19.85        | 20.93        |
| 10    | Co 17013    | 22.17        | 20.69        | 22.03         | 21.58        | 21.29        | 22.60        | 22.17        | 20.20        | 22.54        | 20.07         | 21.15         | 17.99        | 20.66        | 21.09        | 19.75        | 22.97        | 18.60        | 21.03        |
| 11    | Co 17014    | 19.62        | 20.61        | 19.63         | 21.68        | 20.49        | 22.50        | 20.80        | 20.10        | 22.51        | 19.43         | 21.61         | 16.71        | 21.38        | 19.50        | 21.56        | 24.73        | 17.70        | 20.62        |
| 12    | CoVC 17061  | 21.47        | 20.91        | 21.46         | 21.23        | 19.19        | 21.30        | 21.87        | 18.93        | 20.91        | 18.70         | 21.54         | 18.20        | 20.73        | 20.51        | 18.15        | 21.47        | 21.13        | 20.45        |
| 13    | CoN 17071   | 20.09        | 21.16        | 21.68         | 21.87        | 19.11        | 22.35        | 20.80        | 19.73        | 22.90        | 21.07         | 22.24         | 17.52        | 21.54        | 20.48        | 20.89        | 22.98        | 19.53        | 20.94        |
| 14    | CoN 17072   | 19.59        | 21.13        | 21.27         | 18.57        | 21.23        | 22.75        | 19.20        | 18.93        | 21.77        | 20.20         | 23.31         | 15.82        | 20.22        | 20.52        | 19.43        | 20.98        | 18.55        | 20.20        |
| 15    | MS 17081    | 18.75        | 20.84        | 21.98         | 20.73        | 19.15        | 21.40        | 19.47        | 18.53        | 21.73        | 17.63         | 22.71         | 15.09        | 19.43        | 20.51        | 17.53        | 22.72        | 20.73        | 19.94        |
| 16    | MS 17082    | 21.92        | 21.46        | 20.59         | 20.90        | 20.02        | 22.35        | 22.33        | 19.97        | 22.42        | 20.13         | 22.61         | 14.71        | 21.72        | 19.51        | 20.85        | 21.47        | 18.20        | 20.66        |
| 17    | CoVSI 17121 | 20.78        | 20.97        | 19.39         | 21.63        | 19.71        | 23.90        | 22.00        | 19.83        | 22.94        | 19.17         | 23.64         | 15.29        | 22.02        | 20.52        | 20.73        | 22.98        | 19.33        | 20.87        |
| 18    | CoT 17366   | 21.08        | 20.99        | 21.46         | 21.00        | 20.93        | 22.50        | 21.53        | 19.27        | 22.98        | 19.37         | 21.21         | 17.26        | 21.35        | 19.97        | 19.43        | 21.97        | 19.40        | 20.69        |
|       | <b>Sids</b> |              |              |               |              |              |              |              |              |              |               |               |              |              |              |              |              |              |              |
| 1     | Co 86032    | 21.07        | 22.83        | 21.19         | 20.33        | 22.81        | 22.85        | 22.00        | 21.33        | 22.56        | 21.20         | 22.24         | 19.83        | 21.59        | 20.11        | 21.53        | 23.22        | 20.73        | 21.61        |
| 2     | CoC 671     | 23.70        | 22.53        | 21.09         | 22.73        | 22.85        | 23.30        | 23.13        | 21.47        | 22.84        | 21.87         | 23.55         | 18.98        | 23.37        | 22.79        | 20.63        | 23.98        | 21.27        | 22.36        |
| 3     | Co 09004    | 23.86        | --           | 20.10         | 21.97        | 22.29        | 24.50        | 21.87        | 21.17        | 23.54        | 20.33         | 21.86         | 18.76        | 22.43        | 23.49        | 22.76        | 25.23        | 20.50        | 22.17        |
|       | <b>Mean</b> | <b>21.49</b> | <b>21.48</b> | <b>21.25</b>  | <b>21.53</b> | <b>21.28</b> | <b>22.73</b> | <b>21.76</b> | <b>20.05</b> | <b>22.70</b> | <b>20.18</b>  | <b>22.01</b>  | <b>17.36</b> | <b>21.59</b> | <b>20.98</b> | <b>21.64</b> | <b>23.45</b> | <b>19.84</b> | <b>21.25</b> |
|       | SE(m)       | 0.28         | 0.47         | 0.41          | 0.51         | 0.52         | 0.40         | 0.41         | 0.36         | 0.47         | 0.40          | 0.08          | 0.23         | 0.30         | 0.16         | 0.61         | 0.63         | 0.61         |              |
|       | CD          | 0.81         | 1.36         | 1.18          | 1.46         | 1.49         | 1.18         | 1.18         | 1.02         | 1.36         | 1.15          | 0.24          | 0.66         | 0.85         | 0.45         | 1.77         | 1.85         | 1.73         |              |
|       | CV          | 2.28         | 3.82         | 3.36          | 4.12         | 4.25         | 2.49         | 3.29         | 3.07         | 3.62         | 3.46          | 0.68          | 2.31         | 2.40         | 1.30         | 5.19         | 3.78         | 5.33         |              |

Table 2.5.6 Purity % at harvest

| S.No. | Entries     | Coimbatore   | Akola        | Basmath nagar | Belgaum      | Kawarda      | Kolhapur     | Man dya      | Navsari      | Padegaon     | Permallapalle | Pravara nagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla   | Mean         |
|-------|-------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | Co 17001    | 92.18        | 92.62        | 87.77         | 92.53        | 86.61        | 81.45        | 93.99        | 89.28        | 94.77        | 89.83         | 89.20         | 85.68        | 94.30        | 94.54        | 90.34        | 91.44        | 90.50        | 90.41        |
| 2     | Co 17002    | 88.60        | 94.32        | 88.17         | 95.49        | 87.00        | 85.67        | 93.99        | 88.09        | 93.44        | 89.67         | 90.86         | 84.74        | 93.10        | 93.09        | 87.91        | 89.85        | 90.25        | 90.25        |
| 3     | Co 17003    | 93.73        | 95.98        | 88.44         | 90.24        | 88.15        | 80.85        | 93.02        | 90.35        | 94.83        | 89.40         | 96.23         | 86.72        | 94.02        | 95.28        | 87.73        | 92.00        | 90.23        | 91.01        |
| 4     | Co 17004    | 90.46        | 93.31        | 89.14         | 92.04        | 85.18        | 80.69        | 92.89        | 84.23        | 92.77        | 90.30         | 93.50         | 85.23        | 94.22        | 92.66        | 89.69        | 87.94        | 90.26        | 89.68        |
| 5     | Co 17005    | 92.74        | 95.99        | 89.32         | 92.17        | 88.28        | 81.84        | 92.04        | 86.93        | 92.48        | 90.00         | 95.40         | 86.00        | 94.03        | 93.95        | 89.01        | 90.77        | 90.29        | 90.66        |
| 6     | Co 17006    | 90.52        | 96.00        | 87.96         | 92.49        | 88.50        | 80.98        | 93.56        | 88.55        | 90.61        | 89.93         | 92.23         | 87.62        | 93.31        | 95.24        | 89.25        | 90.93        | 90.22        | 90.46        |
| 7     | Co 17008    | 91.67        | 92.38        | 88.13         | 92.43        | 87.61        | 78.24        | 93.65        | 90.04        | 92.57        | 88.60         | 93.99         | 86.17        | 94.74        | 93.98        | 90.43        | 90.80        | 89.99        | 90.32        |
| 8     | Co 17010    | 92.00        | 94.33        | 89.77         | 91.98        | 88.36        | 83.51        | 93.46        | 88.07        | 94.59        | 90.17         | 91.92         | 87.79        | 95.66        | 93.82        | 90.60        | 91.82        | 90.49        | 91.08        |
| 9     | Co 17012    | 90.74        | 94.34        | 88.47         | 93.25        | 86.70        | 81.82        | 92.09        | 88.72        | 94.88        | 89.27         | 90.78         | 85.85        | 94.05        | 94.50        | 87.77        | 92.70        | 90.22        | 90.36        |
| 10    | Co 17013    | 92.68        | 94.32        | 88.44         | 92.63        | 87.02        | 81.14        | 93.23        | 87.85        | 90.56        | 88.87         | 93.98         | 83.80        | 94.84        | 94.50        | 84.60        | 88.27        | 90.26        | 89.82        |
| 11    | Co 17014    | 90.11        | 95.28        | 91.05         | 92.39        | 86.01        | 81.55        | 93.11        | 86.36        | 94.69        | 87.23         | 94.57         | 84.90        | 94.21        | 92.73        | 89.03        | 91.69        | 90.22        | 90.30        |
| 12    | CoVC 17061  | 90.70        | 96.00        | 88.35         | 92.61        | 84.08        | 79.84        | 92.44        | 84.66        | 92.08        | 88.60         | 94.30         | 85.57        | 92.67        | 96.03        | 87.27        | 90.58        | 90.38        | 89.77        |
| 13    | CoN 17071   | 93.15        | 95.34        | 87.11         | 91.49        | 82.31        | 81.08        | 93.66        | 88.55        | 94.91        | 89.67         | 94.35         | 85.99        | 91.59        | 91.52        | 86.28        | 91.67        | 90.47        | 89.95        |
| 14    | CoN 17072   | 92.06        | 93.36        | 86.29         | 91.12        | 89.39        | 78.51        | 93.26        | 83.60        | 89.40        | 89.07         | 92.61         | 84.14        | 92.11        | 91.37        | 86.78        | 90.75        | 90.53        | 89.08        |
| 15    | MS 17081    | 89.12        | 95.33        | 86.10         | 90.52        | 81.45        | 77.75        | 93.60        | 87.59        | 93.47        | 88.87         | 94.50         | 87.07        | 93.32        | 92.54        | 88.82        | 91.07        | 90.31        | 89.50        |
| 16    | MS 17082    | 90.50        | 95.29        | 89.49         | 93.23        | 82.84        | 80.56        | 93.51        | 86.46        | 93.27        | 89.07         | 94.16         | 85.38        | 91.31        | 91.58        | 88.70        | 93.15        | 90.19        | 89.92        |
| 17    | CoVSI 17121 | 92.26        | 95.35        | 93.79         | 90.82        | 86.34        | 81.29        | 93.96        | 84.77        | 91.17        | 89.27         | 94.55         | 84.55        | 92.83        | 93.70        | 87.09        | 92.79        | 90.31        | 90.28        |
| 18    | CoT 17366   | 91.95        | 94.38        | 90.07         | 90.77        | 85.82        | 81.05        | 93.70        | 86.29        | 92.69        | 89.83         | 93.35         | 85.34        | 91.65        | 91.07        | 85.65        | 90.06        | 90.43        | 89.65        |
|       | <b>Stds</b> |              |              |               |              |              |              |              |              |              |               |               |              |              |              |              |              |              |              |
| 1     | Co 86032    | 92.02        | 95.35        | 93.01         | 91.92        | 88.56        | 81.21        | 93.50        | 90.88        | 90.51        | 90.13         | 92.95         | 85.86        | 92.58        | 92.42        | 89.71        | 89.93        | 90.32        | 90.64        |
| 2     | CoC 671     | 93.08        | 92.33        | 86.91         | 88.72        | 91.50        | 83.61        | 92.09        | 90.36        | 90.26        | 90.03         | 94.44         | 87.06        | 94.65        | 91.52        | 85.94        | 90.88        | 90.06        | 90.20        |
| 3     | Co 09004    | 91.89        | --           | 93.51         | 89.68        | 86.31        | 82.46        | 92.81        | 86.56        | 94.18        | 89.60         | 91.25         | 85.20        | 94.05        | 92.35        | 89.19        | 95.07        | 89.87        | 90.25        |
|       | <b>Mean</b> | <b>91.53</b> | <b>94.68</b> | <b>89.10</b>  | <b>91.83</b> | <b>86.57</b> | <b>81.20</b> | <b>93.22</b> | <b>87.53</b> | <b>92.77</b> | <b>89.40</b>  | <b>93.29</b>  | <b>85.75</b> | <b>93.49</b> | <b>93.26</b> | <b>88.28</b> | <b>91.15</b> | <b>90.28</b> | <b>90.20</b> |
|       | SE(m)       | 0.65         | 0.16         | 1.76          | 1.25         | 1.12         | 1.27         | 0.51         | 0.87         | 1.62         | 0.38          | 0.54          | 0.31         | 0.37         | 0.56         | 0.69         | 1.41         | 0.22         |              |
|       | CD          | 1.85         | 0.45         | NS            | 3.57         | 3.21         | NS           | NS           | 2.47         | 4.63         | 1.07          | 1.54          | 0.89         | 1.07         | 1.61         | 1.99         | 4.16         | NS           |              |
|       | CV          | 1.23         | 0.29         | 3.41          | 2.36         | 2.24         | 2.20         | 0.95         | 1.71         | NS           | 0.73          | 1.00          | 0.63         | 0.69         | 1.05         | 1.36         | 2.19         | 0.41         |              |

**Table 2.5.7 Pol % cane at harvest**

| S.No. | Entries     | Coimbatore   | Akola        | Basmathnagar | Belgaum | Kawarda      | Kolhapur | Man-dya      | Navsari      | Padgaon      | Permallapalle | Pravara-nagar | Pugalur      | Pune         | Rudrur | Sameerwadi | Sanke-shwar  | Thiruvalla | Mean         |  |
|-------|-------------|--------------|--------------|--------------|---------|--------------|----------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------|------------|--------------|------------|--------------|--|
| 1     | Co 17001    | 15.70        | 16.27        | --           | --      | 13.68        | --       | 15.79        | 13.81        | 17.45        | --            | --            | 11.59        | 15.83        | --     | --         | 18.91        | --         | 15.47        |  |
| 2     | Co 17002    | 14.55        | 14.85        | --           | --      | 14.92        | --       | 15.09        | 13.47        | 16.91        | --            | --            | 11.57        | 15.00        | --     | --         | 16.35        | --         | 14.61        |  |
| 3     | Co 17003    | 17.15        | 15.77        | --           | --      | 13.28        | --       | 16.11        | 14.50        | 17.63        | --            | --            | 12.22        | 15.70        | --     | --         | 18.04        | --         | 15.78        |  |
| 4     | Co 17004    | 15.30        | 15.37        | --           | --      | 14.45        | --       | 15.56        | 11.90        | 16.52        | --            | --            | 11.21        | 14.92        | --     | --         | 15.83        | --         | 14.43        |  |
| 5     | Co 17005    | 15.64        | 17.04        | --           | --      | 15.17        | --       | 16.22        | 13.46        | 16.39        | --            | --            | 12.38        | 16.68        | --     | --         | 16.39        | --         | 15.41        |  |
| 6     | Co 17006    | 15.09        | 15.53        | --           | --      | 13.82        | --       | 15.72        | 13.60        | 15.51        | --            | --            | 12.25        | 15.27        | --     | --         | 17.28        | --         | 15.05        |  |
| 7     | Co 17008    | 14.85        | 16.25        | --           | --      | 14.88        | --       | 15.47        | 14.39        | 16.01        | --            | --            | 11.08        | 16.38        | --     | --         | 17.02        | --         | 15.03        |  |
| 8     | Co 17010    | 14.71        | 16.34        | --           | --      | 13.44        | --       | 15.82        | 13.13        | 16.18        | --            | --            | 12.29        | 15.75        | --     | --         | 17.65        | --         | 15.19        |  |
| 9     | Co 17012    | 14.48        | 16.41        | --           | --      | 13.64        | --       | 16.24        | 12.59        | 16.65        | --            | --            | 11.10        | 15.24        | --     | --         | 17.00        | --         | 14.79        |  |
| 10    | Co 17013    | 15.62        | 15.56        | --           | --      | 12.98        | --       | 15.80        | 13.49        | 15.83        | --            | --            | 11.63        | 14.60        | --     | --         | 16.01        | --         | 14.69        |  |
| 11    | Co 17014    | 13.47        | 15.00        | --           | --      | 11.97        | --       | 14.93        | 13.25        | 16.62        | --            | --            | 10.99        | 15.08        | --     | --         | 17.65        | --         | 14.44        |  |
| 12    | CoVC 17061  | 14.67        | 15.30        | --           | --      | 11.64        | --       | 15.42        | 12.18        | 14.82        | --            | --            | 12.11        | 14.57        | --     | --         | 15.01        | --         | 14.01        |  |
| 13    | CoN 17071   | 14.19        | 15.87        | --           | --      | 14.13        | --       | 14.81        | 13.41        | 16.81        | --            | --            | 11.68        | 14.87        | --     | --         | 15.91        | --         | 14.35        |  |
| 14    | CoN 17072   | 13.57        | 15.76        | --           | --      | 11.54        | --       | 13.66        | 12.17        | 15.14        | --            | --            | 10.29        | 14.38        | --     | --         | 15.30        | --         | 13.82        |  |
| 15    | MS 17081    | 12.85        | 15.88        | --           | --      | 12.22        | --       | 14.00        | 12.46        | 15.54        | --            | --            | 10.16        | 13.81        | --     | --         | 16.51        | --         | 13.64        |  |
| 16    | MS 17082    | 15.11        | 16.14        | --           | --      | 12.53        | --       | 16.04        | 13.23        | 16.07        | --            | --            | 9.70         | 14.92        | --     | --         | 15.68        | --         | 14.35        |  |
| 17    | CoVSI 17121 | 14.68        | 15.88        | --           | --      | 13.19        | --       | 15.86        | 12.77        | 16.16        | --            | --            | 9.99         | 15.48        | --     | --         | 16.60        | --         | 14.44        |  |
| 18    | CoT 17366   | 14.60        | 15.57        | --           | --      | 14.87        | --       | 15.42        | 12.62        | 16.44        | --            | --            | 11.44        | 15.33        | --     | --         | 15.87        | --         | 14.50        |  |
|       | <b>Stds</b> |              |              |              |         |              |          |              |              |              |               |               |              |              |        |            |              |            |              |  |
| 1     | Co 86032    | 14.87        | 17.04        | --           | --      | 14.87        | --       | 15.59        | 14.88        | 15.97        | --            | --            | 13.14        | 15.13        | --     | --         | 16.47        | --         | 15.33        |  |
| 2     | CoC 671     | 16.85        | 16.12        | --           | --      | 15.44        | --       | 16.28        | 14.86        | 15.75        | --            | --            | 12.74        | 16.75        | --     | --         | 16.81        | --         | 15.73        |  |
| 3     | Co 09004    | 16.72        | --           | --           | --      | 14.15        | --       | 15.52        | 14.06        | 16.96        | --            | --            | 12.31        | 16.04        | --     | --         | 18.52        | --         | 15.54        |  |
|       | <b>Mean</b> | <b>14.30</b> | <b>15.88</b> | --           | --      | <b>13.61</b> | --       | <b>15.49</b> | <b>13.34</b> | <b>16.25</b> | --            | --            | <b>11.53</b> | <b>15.32</b> | --     | --         | <b>16.71</b> | --         | <b>14.71</b> |  |
|       | SE(m)       | 0.35         | 0.35         | --           | --      | 0.45         | --       | 0.28         | 0.22         | 0.49         | --            | --            | 0.17         | 0.22         | --     | --         | 0.44         | --         |              |  |
|       | CD          | 1.00         | 1.01         | --           | --      | 1.30         | --       | 0.80         | 0.64         | 1.41         | --            | --            | 0.48         | 0.63         | --     | --         | 1.30         | --         |              |  |
|       | CV          | 4.08         | 3.84         | --           | --      | 5.79         | --       | 3.14         | 2.90         | 5.25         | --            | --            | 2.50         | 2.51         | --     | --         | 3.72         | --         |              |  |



**Table 2.5.8 Fibre % at harvest**

| S.No. | Entries     | Coimbatore   | Akola        | Basmath nagar | Belgaum | Kawarda      | Kolhapur | Man-dya      | Navsari      | Padegaon     | Permallapalle | Pravara nagar | Pugalur      | Pune         | Rudrur | Sameerwadi | Sanke shwar  | Thiruvalla | Mean         |
|-------|-------------|--------------|--------------|---------------|---------|--------------|----------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------|------------|--------------|------------|--------------|
| 1     | Co 17001    | 13.73        | 12.87        | --            | --      | 16.20        | --       | 13.95        | 13.20        | 13.53        | --            | --            | 12.67        | 14.57        | --     | --         | 11.09        | --         | 13.53        |
| 2     | Co 17002    | 13.56        | 19.00        | --            | --      | 16.99        | --       | 13.63        | 15.15        | 12.83        | --            | --            | 12.71        | 15.75        | --     | --         | 14.09        | --         | 14.86        |
| 3     | Co 17003    | 13.53        | 14.49        | --            | --      | 16.11        | --       | 12.74        | 15.00        | 12.61        | --            | --            | 12.56        | 14.33        | --     | --         | 13.76        | --         | 13.90        |
| 4     | Co 17004    | 13.89        | 14.72        | --            | --      | 15.33        | --       | 14.20        | 14.83        | 12.82        | --            | --            | 12.65        | 13.28        | --     | --         | 9.95         | --         | 13.52        |
| 5     | Co 17005    | 13.44        | 15.45        | --            | --      | 15.91        | --       | 14.12        | 14.73        | 12.41        | --            | --            | 12.75        | 13.53        | --     | --         | 13.86        | --         | 14.02        |
| 6     | Co 17006    | 13.85        | 15.64        | --            | --      | 16.69        | --       | 13.49        | 14.12        | 13.44        | --            | --            | 12.89        | 14.09        | --     | --         | 13.12        | --         | 14.15        |
| 7     | Co 17008    | 13.97        | 12.73        | --            | --      | 16.38        | --       | 13.20        | 15.30        | 14.01        | --            | --            | 12.54        | 13.44        | --     | --         | 10.11        | --         | 13.52        |
| 8     | Co 17010    | 14.31        | 12.98        | --            | --      | 16.79        | --       | 14.30        | 14.67        | 12.33        | --            | --            | 12.41        | 15.01        | --     | --         | 11.44        | --         | 13.80        |
| 9     | Co 17012    | 13.44        | 11.93        | --            | --      | 15.86        | --       | 12.52        | 14.80        | 12.33        | --            | --            | 12.67        | 13.16        | --     | --         | 10.14        | --         | 12.98        |
| 10    | Co 17013    | 13.99        | 12.44        | --            | --      | 16.36        | --       | 13.41        | 13.97        | 12.47        | --            | --            | 12.85        | 15.50        | --     | --         | 11.14        | --         | 13.57        |
| 11    | Co 17014    | 13.82        | 15.67        | --            | --      | 16.33        | --       | 12.79        | 13.65        | 12.02        | --            | --            | 12.49        | 15.14        | --     | --         | 12.16        | --         | 13.79        |
| 12    | CoVC 17061  | 14.68        | 15.82        | --            | --      | 15.82        | --       | 13.58        | 13.97        | 13.03        | --            | --            | 12.23        | 14.17        | --     | --         | 12.79        | --         | 14.01        |
| 13    | CoN 17071   | 14.16        | 13.47        | --            | --      | 16.09        | --       | 13.86        | 13.23        | 12.68        | --            | --            | 12.46        | 14.60        | --     | --         | 14.43        | --         | 13.89        |
| 14    | CoN 17072   | 14.77        | 12.33        | --            | --      | 15.53        | --       | 13.53        | 13.14        | 12.25        | --            | --            | 12.70        | 12.74        | --     | --         | 9.60         | --         | 12.95        |
| 15    | MS 17081    | 13.13        | 12.26        | --            | --      | 16.03        | --       | 12.99        | 13.24        | 13.47        | --            | --            | 12.68        | 13.84        | --     | --         | 10.23        | --         | 13.10        |
| 16    | MS 17082    | 13.86        | 13.23        | --            | --      | 16.34        | --       | 13.06        | 13.36        | 13.14        | --            | --            | 12.76        | 14.77        | --     | --         | 11.52        | --         | 13.56        |
| 17    | CoVSI 17121 | 13.43        | 12.74        | --            | --      | 16.48        | --       | 13.12        | 14.03        | 12.74        | --            | --            | 12.76        | 14.29        | --     | --         | 12.12        | --         | 13.52        |
| 18    | CoT 17366   | 14.71        | 13.59        | --            | --      | 16.61        | --       | 13.44        | 14.11        | 12.81        | --            | --            | 12.33        | 11.65        | --     | --         | 9.75         | --         | 13.22        |
|       | <b>Stds</b> |              |              |               |         |              |          |              |              |              |               |               |              |              |        |            |              |            |              |
| 1     | Co 86032    | 13.30        | 13.86        | --            | --      | 16.43        | --       | 14.07        | 13.24        | 11.72        | --            | --            | 12.81        | 14.31        | --     | --         | 11.10        | --         | 13.43        |
| 2     | CoC 671     | 13.59        | 14.67        | --            | --      | 16.19        | --       | 13.42        | 13.40        | 13.60        | --            | --            | 12.91        | 14.27        | --     | --         | 12.71        | --         | 13.86        |
| 3     | Co 09004    | 13.74        | --           | --            | --      | 16.47        | --       | 13.37        | 13.17        | 13.49        | --            | --            | 12.96        | 13.96        | --     | --         | 12.72        | --         | 13.74        |
|       | <b>Mean</b> | <b>13.85</b> | <b>14.05</b> | --            | --      | <b>16.23</b> | --       | <b>13.47</b> | <b>14.01</b> | <b>12.84</b> | --            | --            | <b>12.66</b> | <b>14.11</b> | --     | --         | <b>11.80</b> | --         | <b>13.67</b> |
|       | SE(m)       | 0.40         | 0.41         | --            | --      | 0.33         | --       | 0.37         | 0.12         | 0.36         | --            | --            | 0.13         | 0.25         | --     | --         | 0.94         | --         |              |
|       | CD          | 1.20         | 1.16         | --            | --      | 0.94         | --       | NS           | 0.33         | 1.04         | --            | --            | 0.38         | 0.72         | --     | --         | 2.76         | --         |              |
|       | CV          | 4.07         | 5.02         | --            | --      | 3.51         | --       | 4.77         | 1.45         | 4.91         | --            | --            | 1.81         | 3.07         | --     | --         | 11.23        | --         |              |

**Table 2.5.9 Extraction % at harvest**

| S.No. | Entries     | Coim batore  | Akola     | Basmath nagar | Bel gaum     | Kaw arda     | Kolha pur    | Man dya      | Nav sari     | Pade gaon    | Permallia palle | Pravara nagar | Puga lur     | Pune         | Rud rur   | Sameer wadi | Sanke shwar  | Thiru valla  | Mean         |
|-------|-------------|--------------|-----------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|---------------|--------------|--------------|-----------|-------------|--------------|--------------|--------------|
| 1     | Co 17001    | 51.38        | --        | --            | 62.21        | 59.50        | 55.13        | 56.26        | 57.64        | 52.42        | 53.78           | 54.32         | 53.82        | 46.69        | --        | --          | 57.75        | 55.15        | 55.08        |
| 2     | Co 17002    | 54.44        | --        | --            | 56.91        | 57.52        | 43.70        | 58.70        | 57.30        | 42.42        | 48.43           | 56.96         | 51.50        | 49.22        | --        | --          | 55.17        | 57.50        | 53.06        |
| 3     | Co 17003    | 53.03        | --        | --            | 59.26        | 59.72        | 46.13        | 56.09        | 59.59        | 58.34        | 55.46           | 52.29         | 53.85        | 48.36        | --        | --          | 57.69        | 55.94        | 55.06        |
| 4     | Co 17004    | 56.87        | --        | --            | 64.29        | 61.68        | 46.65        | 58.40        | 58.23        | 54.16        | 55.85           | 59.36         | 51.65        | 46.43        | --        | --          | 55.64        | 57.40        | 55.89        |
| 5     | Co 17005    | 55.83        | --        | --            | 57.78        | 58.53        | 54.12        | 56.10        | 58.09        | 55.81        | 56.00           | 57.55         | 54.19        | 51.34        | --        | --          | 58.81        | 57.81        | 56.30        |
| 6     | Co 17006    | 55.86        | --        | --            | 58.98        | 58.26        | 55.24        | 56.25        | 56.35        | 44.68        | 56.00           | 54.74         | 52.31        | 52.93        | --        | --          | 53.98        | 58.31        | 54.91        |
| 7     | Co 17008    | 55.85        | --        | --            | 54.27        | 59.05        | 52.67        | 55.23        | 57.50        | 50.94        | 57.99           | 54.56         | 51.16        | 62.66        | --        | --          | 47.62        | 53.85        | 54.87        |
| 8     | Co 17010    | 53.38        | --        | --            | 56.90        | 58.03        | 56.90        | 65.35        | 57.41        | 53.40        | 56.07           | 56.18         | 51.81        | 44.36        | --        | --          | 55.83        | 59.82        | 55.80        |
| 9     | Co 17012    | 55.69        | --        | --            | 64.93        | 60.35        | 52.89        | 56.95        | 58.17        | 52.36        | 63.27           | 54.01         | 52.22        | 54.93        | --        | --          | 60.23        | 57.77        | 57.21        |
| 10    | Co 17013    | 48.96        | --        | --            | 51.30        | 59.10        | 48.33        | 56.81        | 57.03        | 47.44        | 45.12           | 53.21         | 52.67        | 47.96        | --        | --          | 47.56        | 57.50        | 51.77        |
| 11    | Co 17014    | 53.05        | --        | --            | 59.12        | 60.00        | 50.78        | 57.41        | 57.94        | 55.63        | 58.17           | 54.18         | 52.53        | 51.44        | --        | --          | 55.44        | 58.14        | 55.68        |
| 12    | CoVC 17061  | 51.49        | --        | --            | 61.77        | 59.61        | 43.53        | 60.59        | 56.90        | 51.04        | 57.27           | 53.58         | 50.68        | 49.76        | --        | --          | 59.23        | 57.67        | 54.86        |
| 13    | CoN 17071   | 56.81        | --        | --            | 52.89        | 59.47        | 44.07        | 60.00        | 58.04        | 46.09        | 57.55           | 52.23         | 51.83        | 52.01        | --        | --          | 55.13        | 54.83        | 53.92        |
| 14    | CoN 17072   | 51.23        | --        | --            | 63.47        | 59.34        | 47.05        | 59.28        | 57.43        | 52.77        | 59.03           | 50.68         | 50.90        | 54.28        | --        | --          | 59.10        | 62.10        | 55.90        |
| 15    | MS 17081    | 55.55        | --        | --            | 65.41        | 59.10        | 55.57        | 64.64        | 60.90        | 59.78        | 57.76           | 58.20         | 50.82        | 61.05        | --        | --          | 57.01        | 60.14        | 58.92        |
| 16    | MS 17082    | 48.06        | --        | --            | 61.75        | 57.92        | 55.79        | 58.55        | 60.71        | 46.65        | 60.30           | 56.44         | 52.23        | 49.16        | --        | --          | 57.44        | 54.94        | 55.38        |
| 17    | CoVSI 17121 | 55.76        | --        | --            | 61.68        | 58.70        | 49.79        | 68.71        | 58.18        | 53.81        | 60.06           | 56.68         | 51.67        | 59.78        | --        | --          | 60.16        | 61.14        | 58.16        |
| 18    | CoT 17366   | 49.93        | --        | --            | 65.47        | 58.35        | 56.29        | 62.12        | 59.40        | 48.60        | 53.18           | 53.08         | 52.03        | 50.55        | --        | --          | 58.81        | 58.05        | 55.84        |
|       | <b>Stds</b> |              |           |               |              |              |              |              |              |              |                 |               |              |              |           |             |              |              |              |
| 1     | Co 86032    | 57.77        | --        | --            | 60.07        | 58.74        | 51.02        | 62.01        | 58.57        | 51.55        | 41.58           | 55.69         | 52.43        | 51.00        | --        | --          | 60.47        | 57.00        | 55.22        |
| 2     | CoC 671     | 57.66        | --        | --            | 62.31        | 59.20        | 45.42        | 61.12        | 57.83        | 44.84        | 53.82           | 50.02         | 52.63        | 48.25        | --        | --          | 56.50        | 53.58        | 54.09        |
| 3     | Co 09004    | 53.22        | --        | --            | 63.59        | 57.64        | 54.38        | 61.90        | 57.94        | 53.64        | 53.44           | 48.87         | 54.32        | 51.76        | --        | --          | 62.30        | 55.66        | 56.05        |
|       | <b>Mean</b> | <b>53.90</b> | <b>--</b> | <b>--</b>     | <b>60.21</b> | <b>59.03</b> | <b>50.74</b> | <b>59.64</b> | <b>58.15</b> | <b>51.26</b> | <b>55.24</b>    | <b>54.66</b>  | <b>52.25</b> | <b>51.62</b> | <b>--</b> | <b>--</b>   | <b>56.76</b> | <b>57.35</b> | <b>55.45</b> |
|       | SE(m)       | 2.27         | --        | --            | 2.19         | 1.00         | 2.42         | 2.53         | 0.68         | 3.33         | 1.96            | 0.41          | 1.70         | 0.96         | --        | --          | 1.53         | 2.24         |              |
|       | CD          | 5.47         | --        | --            | 6.26         | 2.87         | 7.13         | 7.22         | 1.94         | 9.53         | 5.60            | 1.17          | 4.88         | 2.74         | --        | --          | 4.53         | NS           |              |
|       | CV          | 6.60         | --        | --            | 6.30         | 2.94         | 6.73         | 7.34         | 2.03         | 11.27        | 6.14            | 1.30          | 5.66         | 3.22         | --        | --          | 3.82         | 6.77         |              |

**Table 2.5.10 NMC at harvest ('000/ha)**

| S.No. | Entries     | Coimbatore   | Akola        | Basmath nagar | Belgaum      | Kawarda      | Kolhapur     | Man-dya   | Navsari       | Padegaon     | Permallapalle | Pravara nagar | Pugalur       | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla    | Mean         |
|-------|-------------|--------------|--------------|---------------|--------------|--------------|--------------|-----------|---------------|--------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|---------------|--------------|
| 1     | Co 17001    | 78.00        | 73.86        | 80.89         | 69.56        | 87.22        | 54.41        | --        | 101.90        | 73.07        | 76.84         | 102.19        | 94.08         | 76.07        | 63.64        | 52.33        | 69.99        | 117.13        | 79.45        |
| 2     | Co 17002    | 75.33        | 85.82        | 72.22         | 72.34        | 96.53        | 62.46        | --        | 108.88        | 63.66        | 86.01         | 105.06        | 87.81         | 81.52        | 78.89        | 57.33        | 60.64        | 107.99        | 81.41        |
| 3     | Co 17003    | 76.33        | 90.04        | 69.33         | 92.71        | 71.11        | 61.92        | --        | 113.10        | 84.34        | 77.56         | 101.95        | 102.78        | 82.59        | 79.69        | 53.00        | 53.59        | 104.05        | 82.13        |
| 4     | Co 17004    | 76.33        | 77.09        | 83.78         | 72.92        | 71.53        | 53.68        | --        | 113.82        | 70.45        | 79.83         | 103.53        | 93.26         | 77.96        | 62.65        | 46.67        | 66.07        | 106.83        | 78.52        |
| 5     | Co 17005    | 77.33        | 108.19       | 80.89         | 68.40        | 104.17       | 74.74        | --        | 88.45         | 68.36        | 80.44         | 117.24        | 117.39        | 80.19        | 55.80        | 50.67        | 65.26        | 97.57         | 83.44        |
| 6     | Co 17006    | 75.33        | 78.50        | 66.44         | 58.68        | 56.94        | 68.61        | --        | 93.94         | 65.51        | 61.90         | 119.24        | 104.86        | 66.44        | 70.31        | 49.00        | 62.72        | 100.00        | 74.90        |
| 7     | Co 17008    | 38.33        | 75.55        | 72.22         | 66.44        | 62.36        | 74.09        | --        | 96.84         | 47.07        | 68.08         | 110.79        | 101.85        | 54.78        | 46.48        | 43.00        | 46.55        | 90.05         | 68.40        |
| 8     | Co 17010    | 72.33        | 77.23        | 83.78         | 77.55        | 83.61        | 59.14        | --        | 107.10        | 46.14        | 83.95         | 94.10         | 114.61        | 75.33        | 58.95        | 55.00        | 56.83        | 118.63        | 79.02        |
| 9     | Co 17012    | 79.33        | 74.84        | 83.78         | 83.68        | 93.75        | 64.43        | --        | 96.20         | 85.26        | 77.87         | 99.79         | 112.17        | 90.14        | 64.94        | 55.33        | 70.46        | 89.82         | 82.61        |
| 10    | Co 17013    | 69.33        | 75.83        | 80.89         | 64.81        | 71.94        | 52.12        | --        | 99.54         | 71.22        | 77.77         | 108.84        | 100.11        | 66.85        | 57.47        | 57.33        | 53.13        | 86.35         | 74.60        |
| 11    | Co 17014    | 40.00        | 74.14        | 75.11         | 72.80        | 50.56        | 65.42        | --        | 104.42        | 63.19        | 66.54         | 118.47        | 96.86         | 52.41        | 55.56        | 51.33        | 42.39        | 89.70         | 69.93        |
| 12    | CoVC 17061  | 73.67        | 76.95        | 69.33         | 93.87        | 101.67       | 65.96        | --        | 111.54        | 74.77        | 85.18         | 113.32        | 97.32         | 85.66        | 75.68        | 53.33        | 70.57        | 104.40        | 84.58        |
| 13    | CoN 17071   | 68.67        | 74.28        | 83.78         | 93.87        | 51.67        | 85.82        | --        | 102.36        | 95.68        | 85.49         | 110.28        | 121.57        | 91.56        | 73.70        | 67.33        | 62.83        | 101.04        | 85.62        |
| 14    | CoN 17072   | 68.00        | 81.31        | 63.56         | 66.67        | 105.00       | 70.97        | --        | 104.97        | 51.93        | 80.55         | 114.55        | 101.27        | 49.22        | 55.99        | 62.00        | 60.98        | 81.60         | 76.16        |
| 15    | MS 17081    | 66.67        | 73.58        | 80.89         | 78.01        | 64.86        | 71.25        | --        | 111.37        | 80.32        | 77.46         | 107.49        | 119.71        | 69.04        | 57.53        | 49.00        | 69.65        | 116.43        | 80.83        |
| 16    | MS 17082    | 68.67        | 71.61        | 78.00         | 85.65        | 91.11        | 64.47        | --        | 128.07        | 79.24        | 79.00         | 98.24         | 117.39        | 78.44        | 73.83        | 61.00        | 62.14        | 90.39         | 82.95        |
| 17    | CoVSI 17121 | 67.33        | 72.31        | 72.22         | 74.19        | 78.06        | 60.03        | --        | 102.93        | 67.98        | 53.46         | 113.36        | 89.20         | 71.03        | 56.67        | 50.67        | 68.61        | 83.34         | 73.84        |
| 18    | CoT 17366   | 70.00        | 76.11        | 69.33         | 82.99        | 62.64        | 65.88        | --        | 104.11        | 76.08        | 74.98         | 114.45        | 116.00        | 79.26        | 66.48        | 67.33        | 71.49        | 104.86        | 81.37        |
|       | <b>Stds</b> |              |              |               |              |              |              |           |               |              |               |               |               |              |              |              |              |               |              |
| 1     | Co 86032    | 74.00        | 101.85       | 86.67         | 109.14       | 84.31        | 75.09        | --        | 100.21        | 80.40        | 87.14         | 126.76        | 126.90        | 86.59        | 83.02        | 96.00        | 80.16        | 113.66        | 94.49        |
| 2     | CoC 671     | 67.33        | 101.85       | 83.78         | 82.41        | 61.94        | 58.42        | --        | 94.55         | 69.75        | 89.30         | 116.73        | 140.48        | 69.41        | 66.48        | 58.67        | 60.64        | 103.47        | 82.83        |
| 3     | Co 09004    | 83.33        | --           | 86.67         | 77.43        | 70.69        | 54.10        | --        | 95.09         | 74.07        | 80.86         | 118.40        | 114.72        | 66.59        | 68.89        | 51.67        | 76.58        | 108.91        | 81.87        |
|       | <b>Mean</b> | <b>69.79</b> | <b>81.43</b> | <b>77.31</b>  | <b>78.29</b> | <b>77.22</b> | <b>64.90</b> | <b>--</b> | <b>103.78</b> | <b>70.88</b> | <b>77.63</b>  | <b>110.23</b> | <b>108.11</b> | <b>73.86</b> | <b>65.36</b> | <b>68.78</b> | <b>63.39</b> | <b>100.77</b> | <b>80.73</b> |
|       | SE(m)       | 3.23         | 3.98         | 7.93          | 4.43         | 6.17         | 3.03         | --        | 3.42          | 2.69         | 5.29          | 0.53          | 7.50          | 4.07         | 3.23         | 5.86         | 9.74         | 4.54          |              |
|       | CD          | 9.26         | 11.40        | NS            | 12.66        | 17.64        | 8.95         | --        | 9.77          | 7.68         | 15.11         | 1.52          | 21.45         | 11.63        | 9.22         | 16.81        | 28.74        | 12.91         |              |
|       | CV          | 8.01         | 8.51         | 17.76         | 9.80         | 13.84        | 6.61         | --        |               | 6.57         | 11.80         | 0.83          | 12.02         | 9.54         | 8.55         | 17.88        | 21.73        | 7.81          |              |

**Table 2.5.11 Stalk length at harvest (cm)**

| S.No. | Entries     | Coimbatore    | Akola         | Basmath nagar | Belgaum       | Kawarda       | Kolhapur      | Man-dya       | Navsari       | Padegaon      | Permallapalle | Pravara nagar | Pugalur       | Pune          | Rudrur        | Sameerwadi    | Sanke shwar   | Thiruvalla    | Mean          |
|-------|-------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1     | Co 17001    | 281.67        | 234.33        | 297.33        | 255.50        | 307.07        | 281.25        | 224.00        | 250.00        | 243.33        | 354.67        | 239.33        | 264.66        | 258.00        | 235.67        | 265.66        | 301.00        | 235.67        | 266.42        |
| 2     | Co 17002    | 263.33        | 230.33        | 330.33        | 308.67        | 332.93        | 262.50        | 227.33        | 260.00        | 230.00        | 381.33        | 253.33        | 303.08        | 277.45        | 222.53        | 281.00        | 292.50        | 202.67        | 274.08        |
| 3     | Co 17003    | 236.00        | 214.00        | 266.67        | 261.33        | 278.87        | 270.00        | 215.33        | 270.00        | 221.67        | 285.00        | 216.00        | 242.75        | 248.55        | 234.07        | 298.66        | 269.00        | 203.33        | 248.90        |
| 4     | Co 17004    | 290.00        | 233.33        | 301.67        | 300.50        | 332.00        | 290.00        | 245.33        | 260.00        | 249.00        | 401.67        | 209.33        | 269.10        | 276.78        | 232.20        | 259.66        | 299.00        | 246.67        | 277.43        |
| 5     | Co 17005    | 261.67        | 279.33        | 344.33        | 289.00        | 349.67        | 283.75        | 238.67        | 251.67        | 283.33        | 345.00        | 233.66        | 286.23        | 297.78        | 234.93        | 297.66        | 273.00        | 216.67        | 280.37        |
| 6     | Co 17006    | 235.00        | 253.33        | 296.00        | 276.67        | 277.80        | 232.50        | 226.00        | 246.67        | 209.33        | 325.00        | 236.66        | 278.95        | 215.56        | 205.87        | 286.66        | 279.50        | 234.67        | 253.89        |
| 7     | Co 17008    | 216.67        | 243.33        | 152.00        | 244.33        | 221.93        | 231.25        | 185.33        | 251.67        | 208.33        | 256.67        | 189.00        | 201.53        | 190.78        | 155.33        | 222.66        | 221.50        | 204.67        | 211.59        |
| 8     | Co 17010    | 276.67        | 256.67        | 256.33        | 308.83        | 309.67        | 313.75        | 242.67        | 243.33        | 240.00        | 309.67        | 230.00        | 269.67        | 264.22        | 226.07        | 314.66        | 328.00        | 228.67        | 271.70        |
| 9     | Co 17012    | 275.00        | 258.33        | 268.00        | 300.50        | 316.73        | 287.50        | 242.67        | 260.00        | 231.67        | 376.67        | 229.33        | 285.33        | 271.11        | 274.40        | 293.66        | 319.50        | 237.67        | 278.12        |
| 10    | Co 17013    | 290.00        | 262.67        | 272.67        | 275.67        | 292.67        | 268.75        | 233.33        | 255.00        | 302.67        | 330.33        | 206.66        | 285.38        | 269.45        | 230.77        | 298.00        | 290.00        | 225.33        | 269.96        |
| 11    | Co 17014    | 265.00        | 246.67        | 155.00        | 271.17        | 275.80        | 263.75        | 219.53        | 250.00        | 233.33        | 298.33        | 236.33        | 245.53        | 216.78        | 216.93        | 225.00        | 267.00        | 205.67        | 240.70        |
| 12    | CoVC 17061  | 285.00        | 280.00        | 268.00        | 281.00        | 319.07        | 302.50        | 233.33        | 250.00        | 286.67        | 332.00        | 237.66        | 294.18        | 262.34        | 238.47        | 274.66        | 301.00        | 222.67        | 274.62        |
| 13    | CoN 17071   | 238.33        | 236.67        | 276.33        | 270.83        | 269.33        | 265.00        | 194.67        | 241.67        | 213.33        | 299.67        | 229.33        | 244.67        | 242.89        | 217.47        | 275.00        | 287.50        | 216.67        | 248.20        |
| 14    | CoN 17072   | 250.00        | 263.33        | 243.00        | 301.83        | 294.33        | 215.00        | 223.33        | 258.33        | 265.00        | 279.67        | 206.66        | 238.95        | 226.67        | 228.27        | 233.00        | 305.00        | 225.33        | 250.45        |
| 15    | MS 17081    | 273.33        | 250.00        | 264.00        | 312.83        | 321.80        | 293.75        | 239.33        | 251.67        | 240.00        | 335.00        | 254.00        | 261.80        | 265.67        | 248.87        | 277.66        | 319.30        | 236.33        | 273.26        |
| 16    | MS 17082    | 261.67        | 230.00        | 280.67        | 276.00        | 303.20        | 275.00        | 241.33        | 276.67        | 245.00        | 296.67        | 239.00        | 266.82        | 241.33        | 194.67        | 293.00        | 293.00        | 205.33        | 259.96        |
| 17    | CoVSI17121  | 238.33        | 246.67        | 316.33        | 268.67        | 325.20        | 251.25        | 218.00        | 266.67        | 270.00        | 308.33        | 228.33        | 247.90        | 274.11        | 219.80        | 302.00        | 323.50        | 197.33        | 264.85        |
| 18    | CoT 17366   | 241.67        | 283.33        | 257.00        | 289.67        | 299.60        | 290.00        | 228.00        | 261.67        | 250.00        | 335.33        | 219.66        | 262.25        | 241.11        | 192.67        | 243.66        | 311.50        | 223.33        | 260.61        |
|       | <b>Stds</b> |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| 1     | Co 86032    | 275.00        | 251.67        | 299.00        | 308.17        | 303.27        | 287.50        | 254.00        | 231.67        | 220.00        | 349.00        | 214.33        | 277.35        | 202.44        | 250.93        | 318.66        | 271.00        | 191.33        | 265.02        |
| 2     | CoC 671     | 276.67        | 240.00        | 317.33        | 313.83        | 317.00        | 271.25        | 222.00        | 251.67        | 265.00        | 301.67        | 204.33        | 251.30        | 229.89        | 222.77        | 282.00        | 305.00        | 205.67        | 263.38        |
| 3     | Co 09004    | 266.67        | --            | 306.67        | 323.00        | 328.93        | 298.75        | 233.33        | 253.33        | 261.67        | 374.67        | 207.33        | 291.58        | 245.00        | 244.33        | 304.66        | 340.50        | 240.33        | 282.55        |
|       | <b>Mean</b> | <b>261.79</b> | <b>250.51</b> | <b>274.70</b> | <b>287.52</b> | <b>303.66</b> | <b>273.10</b> | <b>227.98</b> | <b>254.37</b> | <b>246.16</b> | <b>327.44</b> | <b>224.77</b> | <b>265.19</b> | <b>248.47</b> | <b>226.05</b> | <b>301.77</b> | <b>295.11</b> | <b>219.33</b> | <b>264.00</b> |
|       | SE(m)       | 11.82         | 12.01         | 13.32         | 12.28         | 10.05         | 11.99         | 5.79          | 6.47          | 7.60          | 11.27         | 2.88          | 11.91         | 8.64          | 1.75          | 10.20         | 13.40         | 9.41          |               |
|       | CD          | 20.90         | 34.37         | 38.08         | 35.11         | 28.72         | 35.36         | 16.56         | 18.49         | 21.73         | 32.20         | 8.23          | 34.05         | 24.70         | 5.01          | 29.28         | 39.53         | 26.75         |               |
|       | CV          | 7.82          | 8.33          | 8.40          | 7.40          | 5.73          | 6.21          | 4.40          | 4.40          | 5.35          | 5.96          |               | 7.78          | 6.02          | 1.34          | 6.35          | 6.42          | 7.43          |               |

Table 2.5.12 Stalk diameter at harvest (cm)

| S.No. | Entries     | Coimbatore  | Akola       | Basmath nagar | Belgaum     | Kawarda     | Kolhapur    | Man-dya     | Navsari     | Padgaon     | Permallapalle | Pravaranaagar | Pugalur     | Pune        | Rudhurr     | Sameerwadi  | Sanke shwar | Thiruvalla  | Mean        |
|-------|-------------|-------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1     | Co 17001    | 2.73        | 2.58        | 3.45          | 2.63        | 2.88        | 3.19        | 3.11        | 2.34        | 2.74        | 2.77          | 2.57          | 2.74        | 2.99        | 3.04        | 2.80        | 2.62        | 2.83        | 2.82        |
| 2     | Co 17002    | 2.67        | 2.65        | 3.37          | 2.65        | 2.69        | 2.66        | 2.97        | 2.47        | 2.69        | 2.57          | 2.42          | 2.90        | 2.90        | 3.07        | 3.00        | 2.62        | 2.92        | 2.78        |
| 3     | Co 17003    | 2.81        | 2.39        | 3.27          | 2.73        | 2.82        | 2.87        | 2.87        | 2.51        | 2.53        | 2.87          | 2.54          | 2.61        | 2.79        | 2.84        | 2.90        | 2.68        | 2.95        | 2.76        |
| 4     | Co 17004    | 2.95        | 2.66        | 3.34          | 2.85        | 2.91        | 3.01        | 3.19        | 2.67        | 3.19        | 3.20          | 2.63          | 3.04        | 3.09        | 3.75        | 2.90        | 2.80        | 3.06        | 3.01        |
| 5     | Co 17005    | 2.63        | 2.88        | 3.15          | 2.57        | 2.43        | 2.64        | 2.80        | 2.41        | 2.87        | 3.13          | 2.61          | 2.76        | 2.90        | 2.83        | 2.50        | 2.58        | 2.61        | 2.72        |
| 6     | Co 17006    | 2.97        | 2.61        | 3.45          | 2.70        | 2.88        | 2.93        | 2.91        | 2.44        | 2.79        | 2.93          | 2.48          | 2.62        | 2.71        | 3.05        | 2.90        | 2.74        | 2.88        | 2.82        |
| 7     | Co 17008    | 3.98        | 2.66        | 3.18          | 3.27        | 3.47        | 3.44        | 3.67        | 2.41        | 3.24        | 3.23          | 2.58          | 3.14        | 3.19        | 4.04        | 3.36        | 3.30        | 3.11        | 3.25        |
| 8     | Co 17010    | 2.55        | 2.55        | 2.81          | 2.57        | 2.79        | 2.97        | 2.93        | 2.49        | 3.24        | 2.53          | 2.47          | 2.96        | 2.72        | 2.97        | 2.73        | 2.56        | 2.64        | 2.73        |
| 9     | Co 17012    | 2.75        | 2.78        | 3.13          | 2.70        | 2.83        | 2.71        | 3.09        | 2.47        | 3.14        | 2.63          | 2.45          | 2.86        | 2.97        | 3.35        | 2.80        | 2.73        | 2.82        | 2.84        |
| 10    | Co 17013    | 2.87        | 2.85        | 3.59          | 2.77        | 2.93        | 3.11        | 3.15        | 2.50        | 3.32        | 2.87          | 2.55          | 3.06        | 3.19        | 3.37        | 3.13        | 2.91        | 2.98        | 3.01        |
| 11    | Co 17014    | 3.14        | 2.74        | 2.53          | 2.60        | 3.20        | 3.15        | 3.37        | 2.51        | 3.30        | 3.33          | 2.62          | 3.12        | 3.16        | 3.20        | 3.16        | 3.15        | 3.09        | 3.02        |
| 12    | CoVC 17061  | 2.83        | 2.70        | 3.55          | 2.68        | 2.67        | 3.12        | 2.97        | 2.45        | 2.87        | 2.77          | 2.65          | 2.97        | 3.14        | 3.05        | 2.70        | 2.44        | 2.60        | 2.83        |
| 13    | CoN 17071   | 2.45        | 2.66        | 3.18          | 2.45        | 3.59        | 2.81        | 2.59        | 2.47        | 2.61        | 2.80          | 2.48          | 2.44        | 2.62        | 2.98        | 2.60        | 2.90        | 2.47        | 2.71        |
| 14    | CoN 17072   | 3.29        | 2.78        | 3.93          | 3.58        | 2.53        | 2.63        | 3.58        | 2.53        | 2.82        | 2.87          | 2.53          | 3.65        | 3.58        | 3.75        | 3.56        | 3.32        | 3.82        | 3.22        |
| 15    | MS 17081    | 3.02        | 2.73        | 3.27          | 3.03        | 2.94        | 3.01        | 3.41        | 2.54        | 3.03        | 2.87          | 2.54          | 3.04        | 2.99        | 3.44        | 3.26        | 2.73        | 3.06        | 2.99        |
| 16    | MS 17082    | 2.96        | 2.58        | 3.59          | 3.08        | 2.99        | 3.45        | 3.33        | 2.57        | 3.00        | 3.17          | 2.60          | 3.02        | 3.06        | 2.75        | 3.20        | 2.84        | 2.59        | 2.99        |
| 17    | CoVSI 17121 | 3.04        | 2.43        | 3.40          | 2.68        | 2.90        | 3.34        | 3.06        | 2.46        | 3.16        | 2.97          | 2.52          | 2.96        | 3.08        | 3.09        | 3.16        | 2.97        | 2.93        | 2.95        |
| 18    | CoT 17366   | 3.01        | 2.58        | 3.03          | 2.97        | 2.95        | 3.18        | 3.10        | 2.50        | 2.92        | 3.07          | 2.56          | 3.05        | 2.77        | 2.82        | 3.10        | 2.68        | 2.74        | 2.88        |
|       | <b>Stds</b> |             |             |               |             |             |             |             |             |             |               |               |             |             |             |             |             |             |             |
| 1     | Co 86032    | 2.72        | 2.41        | 3.11          | 2.55        | 2.78        | 2.88        | 3.10        | 2.47        | 3.03        | 2.40          | 2.59          | 2.82        | 2.96        | 2.86        | 3.20        | 2.39        | 2.65        | 2.76        |
| 2     | CoC 671     | 3.05        | 2.83        | 3.27          | 2.63        | 3.08        | 3.21        | 3.25        | 2.55        | 2.84        | 2.53          | 2.45          | 3.11        | 3.11        | 3.15        | 2.56        | 2.71        | 2.49        | 2.87        |
| 3     | Co 09004    | 2.52        | ---         | 2.82          | 2.55        | 2.62        | 3.12        | 2.87        | 2.52        | 2.74        | 3.10          | 2.43          | 2.42        | 2.97        | 2.79        | 2.86        | 2.46        | 2.54        | 2.71        |
|       | <b>Mean</b> | <b>2.76</b> | <b>2.66</b> | <b>3.26</b>   | <b>2.77</b> | <b>2.89</b> | <b>3.02</b> | <b>3.11</b> | <b>2.49</b> | <b>2.96</b> | <b>2.89</b>   | <b>2.53</b>   | <b>2.92</b> | <b>2.99</b> | <b>3.15</b> | <b>2.87</b> | <b>2.77</b> | <b>2.85</b> | <b>2.88</b> |
|       | SE(m)       | 0.12        | 0.09        | 0.14          | 0.13        | 0.07        | 0.13        | 0.09        | 0.02        | 0.11        | 0.09          | 0.01          | 0.12        | 0.07        | 0.03        | 0.06        | 0.16        | 0.09        |             |
|       | CD          | 0.36        | 0.26        | 0.39          | 0.38        | 0.19        | 0.40        | 0.26        | 0.05        | 0.32        | 0.25          | 0.05          | 0.34        | 0.19        | 0.08        | 0.19        | 0.47        | 0.26        |             |
|       | CV          | 7.51        | 5.82        | 7.20          | 8.28        | 3.97        | 6.28        | 4.98        | 1.20        | 6.48        | 5.27          | 1.31          | 7.00        | 3.87        | 1.61        | 3.97        | 8.18        | 5.61        |             |

Table 2.5.13 Single cane weight at harvest (kg)

| S.No. | Entries     | Coimbatore  | Akola       | Basmath nagar | Belgaum     | Kawarda     | Kolhapur    | Man-dya     | Navsari     | Padegaon    | Permallapalle | Pravaranaagar | Pugajur     | Pune        | Rudnur      | Sameerwadi  | Sanke shwar | Thiruvalla  | Mean        |
|-------|-------------|-------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1     | Co 17001    | 1.89        | 0.69        | 1.81          | 1.55        | 2.09        | 2.01        | 1.35        | 1.14        | 1.75        | 1.75          | 1.60          | 1.84        | 1.76        | 1.67        | 1.41        | 2.01        | 1.38        | 1.63        |
| 2     | Co 17002    | 1.24        | 0.65        | 1.94          | 1.80        | 1.88        | 1.53        | 1.28        | 1.24        | 1.68        | 1.64          | 1.76          | 1.95        | 1.65        | 1.69        | 1.48        | 1.84        | 1.26        | 1.56        |
| 3     | Co 17003    | 1.46        | 0.63        | 1.61          | 1.50        | 1.75        | 1.75        | 1.18        | 1.27        | 1.49        | 1.57          | 1.45          | 1.57        | 1.63        | 1.26        | 1.69        | 1.45        | 1.18        | 1.44        |
| 4     | Co 17004    | 2.07        | 0.65        | 1.81          | 2.00        | 2.21        | 1.96        | 1.69        | 1.24        | 1.65        | 1.87          | 1.69          | 1.58        | 1.88        | 2.26        | 1.05        | 2.13        | 1.52        | 1.72        |
| 5     | Co 17005    | 1.72        | 1.03        | 1.77          | 1.60        | 1.74        | 1.58        | 1.31        | 1.14        | 1.59        | 1.54          | 1.67          | 1.42        | 1.71        | 1.50        | 1.39        | 1.89        | 1.13        | 1.51        |
| 6     | Co 17006    | 1.61        | 0.94        | 1.57          | 1.68        | 1.78        | 1.51        | 1.37        | 1.17        | 1.77        | 1.44          | 1.58          | 1.38        | 1.36        | 1.30        | 1.43        | 2.09        | 1.30        | 1.49        |
| 7     | Co 17008    | 1.88        | 0.89        | 0.95          | 1.83        | 1.93        | 1.72        | 1.57        | 1.14        | 1.96        | 1.89          | 1.56          | 1.47        | 1.34        | 2.03        | 1.60        | 1.87        | 1.47        | 1.59        |
| 8     | Co 17010    | 1.74        | 0.82        | 1.43          | 1.67        | 1.79        | 1.64        | 1.41        | 1.21        | 1.96        | 1.46          | 1.61          | 1.51        | 1.58        | 1.52        | 0.84        | 1.76        | 1.35        | 1.49        |
| 9     | Co 17012    | 1.76        | 0.97        | 1.52          | 1.86        | 1.82        | 1.70        | 1.55        | 1.14        | 1.83        | 1.68          | 1.42          | 1.58        | 1.86        | 1.98        | 1.10        | 1.84        | 1.30        | 1.58        |
| 10    | Co 17013    | 1.95        | 0.94        | 1.65          | 1.70        | 1.74        | 1.95        | 1.49        | 1.29        | 2.06        | 1.62          | 1.29          | 1.59        | 1.44        | 1.71        | 1.63        | 1.78        | 1.39        | 1.60        |
| 11    | Co 17014    | 1.87        | 0.99        | 0.93          | 1.70        | 1.97        | 1.76        | 1.52        | 1.07        | 2.05        | 1.66          | 1.65          | 1.40        | 1.71        | 1.87        | 1.77        | 2.14        | 1.62        | 1.63        |
| 12    | CoVC 17061  | 1.68        | 0.97        | 1.87          | 1.63        | 1.70        | 1.82        | 1.33        | 1.20        | 1.64        | 1.61          | 1.32          | 1.57        | 1.76        | 1.68        | 1.51        | 1.72        | 1.26        | 1.55        |
| 13    | CoN 17071   | 1.10        | 0.90        | 1.57          | 1.27        | 2.61        | 1.52        | 0.99        | 1.08        | 1.23        | 1.23          | 1.73          | 1.21        | 1.35        | 1.49        | 1.95        | 1.50        | 1.08        | 1.40        |
| 14    | CoN 17072   | 2.05        | 0.88        | 2.05          | 2.55        | 1.45        | 1.21        | 1.80        | 1.16        | 1.89        | 1.73          | 1.69          | 1.63        | 1.53        | 2.01        | 1.87        | 2.31        | 1.59        | 1.73        |
| 15    | MS 17081    | 1.50        | 0.97        | 1.30          | 2.27        | 2.06        | 1.98        | 1.88        | 1.19        | 2.01        | 1.49          | 1.67          | 1.56        | 1.84        | 1.97        | 1.56        | 2.61        | 1.57        | 1.73        |
| 16    | MS 17082    | 1.74        | 0.90        | 1.86          | 1.98        | 2.03        | 2.34        | 1.70        | 1.34        | 2.06        | 1.64          | 1.79          | 1.61        | 1.78        | 1.22        | 0.65        | 1.76        | 1.15        | 1.62        |
| 17    | CoVSI 17121 | 1.83        | 0.95        | 1.95          | 1.62        | 2.13        | 2.01        | 1.49        | 1.16        | 2.03        | 1.45          | 1.62          | 1.52        | 1.83        | 1.47        | 0.97        | 1.99        | 1.35        | 1.61        |
| 18    | CoT 17366   | 1.58        | 0.99        | 1.44          | 2.00        | 2.02        | 1.94        | 1.41        | 1.12        | 2.05        | 1.62          | 1.44          | 1.46        | 1.49        | 1.12        | 1.34        | 1.73        | 1.32        | 1.53        |
|       | <b>Stds</b> |             |             |               |             |             |             |             |             |             |               |               |             |             |             |             |             |             |             |
| 1     | Co 86032    | 1.64        | 0.93        | 1.56          | 1.59        | 1.77        | 1.69        | 1.80        | 1.01        | 1.95        | 1.61          | 1.59          | 1.54        | 1.44        | 1.41        | 1.25        | 1.54        | 1.18        | 1.50        |
| 2     | CoC 671     | 1.72        | 0.89        | 1.49          | 1.86        | 2.20        | 1.95        | 1.55        | 1.20        | 2.00        | 1.36          | 1.52          | 1.56        | 1.62        | 1.44        | 1.16        | 1.84        | 1.13        | 1.56        |
| 3     | Co 09004    | 1.50        | --          | 1.34          | 1.87        | 1.60        | 2.12        | 1.40        | 1.15        | 1.92        | 1.67          | 1.42          | 1.56        | 1.82        | 1.50        | 1.36        | 1.75        | 1.19        | 1.57        |
|       | <b>Mean</b> | <b>1.69</b> | <b>0.89</b> | <b>1.59</b>   | <b>1.79</b> | <b>1.91</b> | <b>1.79</b> | <b>1.48</b> | <b>1.17</b> | <b>1.84</b> | <b>1.60</b>   | <b>1.57</b>   | <b>1.55</b> | <b>1.64</b> | <b>1.62</b> | <b>1.40</b> | <b>1.88</b> | <b>1.32</b> | <b>1.57</b> |
|       | SE(m)       | 0.06        | 0.06        | 0.14          | 0.14        | 0.11        | 0.14        | 0.10        | 0.03        | 0.10        | 0.06          | 0.03          | 0.06        | 0.03        | 0.03        | 0.1         | 0.16        | 0.05        |             |
|       | CD          | 0.16        | 0.16        | 0.40          | 0.40        | 0.32        | 0.42        | 0.30        | 0.09        | 0.29        | 0.18          | 0.10          | 0.27        | 0.10        | 0.09        | 0.28        | 0.47        | 0.15        |             |
|       | CV          | 5.68        | 10.92       | 15.04         | 13.52       | 9.96        | 11.27       | 12.18       | 4.53        | 9.43        | 6.98          | 4.16          | 10.71       | 3.55        | 3.51        | 10.50       | 11.87       | 6.95        |             |

**Table 2.5.14 CCS % at 300 days**

| S.No. | Entries     | Coimbatore   | Akola        | Basmath nagar | Belgaum      | Kawarda | Kolhapur     | Manadya      | Navsari      | Padgaon      | Permallapalle | Pravaranaagar | Pugalur     | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla   | Mean         |  |
|-------|-------------|--------------|--------------|---------------|--------------|---------|--------------|--------------|--------------|--------------|---------------|---------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| 1     | Co 17001    | 13.44        | 12.83        | --            | 14.40        | --      | 11.78        | 14.05        | 10.67        | 12.04        | 12.19         | 12.75         | 10.14       | 13.31        | 13.73        | 11.76        | 13.77        | 10.47        | 12.49        |  |
| 2     | Co 17002    | 13.31        | 12.91        | --            | 13.64        | --      | 10.67        | 12.94        | 11.03        | 11.92        | 10.34         | 13.13         | 9.73        | 12.78        | 11.67        | 10.92        | 13.22        | 10.20        | 11.89        |  |
| 3     | Co 17003    | 13.98        | 13.22        | --            | 12.86        | --      | 11.41        | 13.61        | 10.22        | 13.12        | 12.43         | 13.98         | 11.06       | 12.82        | 14.03        | 11.66        | 13.64        | 10.26        | 12.55        |  |
| 4     | Co 17004    | 12.42        | 12.39        | --            | 11.97        | --      | 10.91        | 12.54        | 9.85         | 11.32        | 10.41         | 12.80         | 9.31        | 11.87        | 10.01        | 10.62        | 11.76        | 10.72        | 11.26        |  |
| 5     | Co 17005    | 13.88        | 14.58        | --            | 11.64        | --      | 12.29        | 13.03        | 10.84        | 11.46        | 10.16         | 12.04         | 10.86       | 12.57        | 11.45        | 10.86        | 11.80        | 10.29        | 11.85        |  |
| 6     | Co 17006    | 12.86        | 13.23        | --            | 14.47        | --      | 13.24        | 14.11        | 10.40        | 11.51        | 11.55         | 11.86         | 11.59       | 13.17        | 10.35        | 11.44        | 13.30        | 10.36        | 12.23        |  |
| 7     | Co 17008    | 12.94        | 12.6         | --            | 12.63        | --      | 10.03        | 13.6         | 10.77        | 10.60        | 11.31         | 12.02         | 9.52        | 13.00        | 12.71        | 10.69        | 11.48        | 10.19        | 11.61        |  |
| 8     | Co 17010    | 12.63        | 13.12        | --            | 14.09        | --      | 12.98        | 13.69        | 10.61        | 11.56        | 11.86         | 11.78         | 10.06       | 13.35        | 10.05        | 12.49        | 13.82        | 10.14        | 12.15        |  |
| 9     | Co 17012    | 12.04        | 12.99        | --            | 12.47        | --      | 11.17        | 12.23        | 9.32         | 10.99        | 9.12          | 11.34         | 9.57        | 12.11        | 9.91         | 10.41        | 11.64        | 10.56        | 11.06        |  |
| 10    | Co 17013    | 12.56        | 12.34        | --            | 12.56        | --      | 11.99        | 13.53        | 11.26        | 10.94        | 10.11         | 13.38         | 9.80        | 11.75        | 11.35        | 10.52        | 11.65        | 9.89         | 11.58        |  |
| 11    | Co 17014    | 11.83        | 12.64        | --            | 12.38        | --      | 10.89        | 12.92        | 9.94         | 11.23        | 9.81          | 13.01         | 9.37        | 11.93        | 10.92        | 12.01        | 13.05        | 8.58         | 11.37        |  |
| 12    | CoVC 17061  | 13.01        | 13.08        | --            | 12.22        | --      | 10.62        | 13.43        | 9.94         | 10.37        | 9.74          | 12.97         | 10.22       | 11.68        | 8.58         | 9.14         | 9.89         | 10.62        | 11.03        |  |
| 13    | CoN 17071   | 12.33        | 13.03        | --            | 12.06        | --      | 9.91         | 12.12        | 9.37         | 10.92        | 10.08         | 12.24         | 9.99        | 11.87        | 9.36         | 10.23        | 10.74        | 9.91         | 10.94        |  |
| 14    | CoN 17072   | 11.81        | 12.34        | --            | 11.66        | --      | 11.80        | 11.73        | 9.36         | 10.56        | 10.49         | 12.22         | 8.41        | 11.46        | 8.40         | 9.37         | 11.02        | 9.34         | 10.66        |  |
| 15    | MS 17081    | 10.79        | 12.81        | --            | 11.18        | --      | 10.30        | 12.32        | 10.56        | 10.11        | 9.61          | 13.21         | 8.12        | 12.00        | 10.08        | 8.81         | 10.77        | 9.53         | 10.68        |  |
| 16    | MS 17082    | 11.82        | 13.21        | --            | 11.78        | --      | 11.37        | 13.18        | 10.85        | 11.39        | 10.90         | 12.54         | 7.93        | 12.84        | 9.92         | 10.10        | 10.06        | 7.93         | 11.06        |  |
| 17    | CoVSI 17121 | 12.28        | 12.91        | --            | 11.47        | --      | 12.82        | 12.84        | 9.35         | 10.64        | 9.05          | 13.56         | 8.23        | 13.26        | 10.81        | 9.99         | 10.01        | 9.51         | 11.12        |  |
| 18    | CoT 17366   | 12.48        | 12.6         | --            | 12.73        | --      | 11.51        | 12.67        | 9.47         | 10.98        | 10.61         | 11.52         | 9.66        | 12.50        | 10.35        | 9.10         | 10.23        | 10.06        | 11.10        |  |
|       | <b>Stds</b> |              |              |               |              |         |              |              |              |              |               |               |             |              |              |              |              |              |              |  |
| 1     | Co 86032    | 12.39        | 14.14        | --            | 10.98        | --      | 11.25        | 13.46        | 10.98        | 12.20        | 11.53         | 13.13         | 11.37       | 13.52        | 8.93         | 11.83        | 12.78        | 10.95        | 11.96        |  |
| 2     | CoC 671     | 15.17        | 12.87        | --            | 14.06        | --      | 11.26        | 13.98        | 11.02        | 12.58        | 11.86         | 13.84         | 10.39       | 14.50        | 10.25        | 11.74        | 13.30        | 11.38        | 12.55        |  |
| 3     | Co 09004    | 14.86        | --           | --            | 13.42        | --      | 12.39        | 14.03        | 10.54        | 12.96        | 11.06         | 12.21         | 10.89       | 14.09        | 12.82        | 13.73        | 13.87        | 10.43        | 12.66        |  |
|       | <b>Mean</b> | <b>12.80</b> | <b>13.00</b> | --            | <b>12.60</b> | --      | <b>11.46</b> | <b>11.17</b> | <b>10.30</b> | <b>11.40</b> | <b>10.68</b>  | <b>12.64</b>  | <b>9.82</b> | <b>12.68</b> | <b>10.75</b> | <b>12.43</b> | <b>11.99</b> | <b>10.06</b> | <b>11.59</b> |  |
|       | SE(m)       | 0.45         | 0.47         | --            | 0.58         | --      | 0.48         | 0.3          | 0.19         | 0.65         | 0.28          | 0.30          | 0.16        | 0.23         | 0.05         | 0.31         | 0.51         | 0.46         |              |  |
|       | CD          | 0.98         | 1.34         | --            | 1.66         | --      | 1.42         | 0.87         | 0.54         | 1.87         | 0.80          | 0.88          | 0.45        | 0.66         | 0.15         | 0.89         | 1.50         | 1.31         |              |  |
|       | CV          | 3.01         | 6.26         | --            | 8.00         | --      | 5.95         | 4.7          | 3.15         | NS           | 4.55          | 4.22          | 2.78        | 3.15         | 0.84         | 4.98         | 5.98         | 7.93         |              |  |

**Table 2.5.15 Sucrose % at 300 days**

| S.No. | Entries     | Coimbatore   | Akola        | Basmathnagar | Belgaum      | Kawarda | Kolhapur     | Manadya      | Navsari      | Padegaon     | Permallapalle | Pravaranagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla   | Mean         |
|-------|-------------|--------------|--------------|--------------|--------------|---------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | Co 17001    | 19.10        | 18.13        | --           | 20.47        | --      | 17.00        | 19.74        | 15.43        | 17.22        | 17.60         | 18.61        | 14.74        | 18.79        | 19.26        | 16.90        | 19.74        | 15.31        | 17.87        |
| 2     | Co 17002    | 19.03        | 18.15        | --           | 19.40        | --      | 15.62        | 18.25        | 16.09        | 17.06        | 14.98         | 19.16        | 14.19        | 18.17        | 16.90        | 16.01        | 19.13        | 14.93        | 17.14        |
| 3     | Co 17003    | 19.88        | 18.45        | --           | 18.35        | --      | 16.64        | 19.3         | 14.82        | 18.46        | 18.01         | 20.10        | 16.25        | 18.04        | 19.67        | 17.03        | 19.47        | 15.01        | 17.97        |
| 4     | Co 17004    | 17.93        | 17.5         | --           | 17.21        | --      | 16.25        | 17.63        | 14.52        | 16.14        | 15.03         | 17.91        | 13.68        | 16.72        | 15.05        | 15.59        | 17.20        | 15.69        | 16.27        |
| 5     | Co 17005    | 19.73        | 20.34        | --           | 16.56        | --      | 17.87        | 18.33        | 15.81        | 16.32        | 14.70         | 17.44        | 15.84        | 17.74        | 16.69        | 15.87        | 16.88        | 15.08        | 17.01        |
| 6     | Co 17006    | 18.40        | 18.46        | --           | 20.50        | --      | 19.01        | 19.83        | 15.29        | 16.46        | 16.73         | 17.02        | 16.82        | 18.57        | 15.47        | 16.60        | 19.07        | 15.16        | 17.56        |
| 7     | Co 17008    | 18.47        | 17.88        | --           | 17.85        | --      | 14.62        | 19.09        | 15.73        | 15.19        | 16.45         | 17.18        | 13.97        | 18.27        | 18.06        | 15.64        | 16.71        | 14.94        | 16.67        |
| 8     | Co 17010    | 18.03        | 18.44        | --           | 19.75        | --      | 18.58        | 19.33        | 15.37        | 16.23        | 17.15         | 16.93        | 14.76        | 18.75        | 15.04        | 18.00        | 19.86        | 14.86        | 17.41        |
| 9     | Co 17012    | 17.23        | 18.26        | --           | 17.79        | --      | 16.21        | 17.23        | 13.75        | 15.67        | 13.21         | 16.40        | 13.99        | 17.09        | 14.62        | 15.28        | 16.51        | 15.47        | 15.91        |
| 10    | Co 17013    | 18.00        | 17.35        | --           | 17.79        | --      | 17.24        | 19.04        | 16.35        | 15.76        | 14.68         | 18.79        | 14.50        | 16.67        | 16.45        | 15.40        | 17.09        | 14.48        | 16.64        |
| 11    | Co 17014    | 17.07        | 17.69        | --           | 17.65        | --      | 16.06        | 18.14        | 14.68        | 16.00        | 14.37         | 18.71        | 13.85        | 16.81        | 16.02        | 17.34        | 18.53        | 12.56        | 16.37        |
| 12    | CoVC 17061  | 18.57        | 18.25        | --           | 17.42        | --      | 15.41        | 18.84        | 14.59        | 15.07        | 14.18         | 18.67        | 15.02        | 16.65        | 13.17        | 13.63        | 14.51        | 15.53        | 15.97        |
| 13    | CoN 17071   | 17.70        | 18.23        | --           | 17.27        | --      | 14.50        | 17.03        | 13.86        | 15.70        | 14.60         | 17.92        | 14.69        | 16.86        | 14.13        | 15.22        | 15.85        | 14.55        | 15.87        |
| 14    | CoN 17072   | 17.03        | 17.43        | --           | 16.58        | --      | 16.91        | 16.51        | 13.75        | 15.25        | 15.22         | 17.64        | 12.52        | 16.29        | 12.73        | 14.00        | 15.98        | 13.64        | 15.43        |
| 15    | MS 17081    | 15.67        | 17.93        | --           | 15.91        | --      | 15.16        | 17.3         | 15.55        | 14.68        | 13.93         | 18.84        | 11.99        | 16.82        | 15.06        | 13.14        | 15.74        | 13.93        | 15.44        |
| 16    | MS 17082    | 17.13        | 18.49        | --           | 17.02        | --      | 16.54        | 18.54        | 15.76        | 16.25        | 15.78         | 18.93        | 11.70        | 18.05        | 14.62        | 14.92        | 14.90        | 11.62        | 16.02        |
| 17    | CoVSI 17121 | 17.63        | 18.06        | --           | 16.66        | --      | 18.45        | 18.02        | 13.78        | 15.33        | 13.17         | 19.27        | 12.21        | 18.62        | 15.78        | 14.76        | 14.56        | 13.94        | 16.02        |
| 18    | CoT 17366   | 17.90        | 17.7         | --           | 18.18        | --      | 16.76        | 17.76        | 13.86        | 15.66        | 15.35         | 16.64        | 14.32        | 17.60        | 15.47        | 13.67        | 15.13        | 14.70        | 16.05        |
|       | <b>Stds</b> |              |              |              |              |         |              |              |              |              |               |              |              |              |              |              |              |              |              |
| 1     | Co 86032    | 17.77        | 19.79        | --           | 15.63        | --      | 16.13        | 18.86        | 16.02        | 17.28        | 16.67         | 18.81        | 16.54        | 18.90        | 13.68        | 17.07        | 18.28        | 16.00        | 17.16        |
| 2     | CoC 671     | 21.40        | 18.26        | --           | 19.82        | --      | 16.71        | 19.64        | 16.06        | 17.79        | 17.16         | 19.42        | 15.22        | 20.27        | 15.06        | 17.24        | 18.99        | 16.64        | 17.98        |
| 3     | Co 09004    | 21.03        | --           | --           | 19.11        | --      | 17.99        | 19.69        | 15.41        | 18.31        | 15.98         | 18.62        | 15.85        | 19.69        | 18.37        | 19.80        | 19.70        | 15.24        | 18.20        |
|       | <b>Mean</b> | <b>18.32</b> | <b>18.25</b> | --           | <b>17.95</b> | --      | <b>16.65</b> | <b>18.48</b> | <b>15.07</b> | <b>16.28</b> | <b>15.47</b>  | <b>18.24</b> | <b>14.42</b> | <b>17.88</b> | <b>15.78</b> | <b>15.86</b> | <b>17.32</b> | <b>14.73</b> | <b>16.71</b> |
|       | SE(m)       | 0.42         | 0.54         | --           | 0.73         | --      | 0.53         | 0.4          | 0.24         | 0.82         | 0.40          | 0.35         | 0.23         | 0.30         | 0.03         | 0.39         | 0.63         | 0.67         |              |
|       | CD          | 1.19         | 1.55         | --           | 2.08         | --      | 1.56         | 1.13         | 0.69         | 2.33         | 1.14          | 1.00         | 0.65         | 0.85         | 0.10         | 1.13         | 1.86         | 1.90         |              |
|       | CV          | 3.93         | 5.15         | --           | 7.01         | --      | 4.51         | 3.72         | 2.77         | NS           | 4.46          | 3.33         | 2.72         | 2.87         | 0.38         | 4.30         | 5.14         | 7.84         |              |



**Table 2.5.16 Brix % at 300 days**

| S.No. | Entries     | Coim batore  | Akola        | Basmath nagar | Bel ggam     | Kaw arda | Kolha pur    | Man dya      | Nav sari     | Pade gaon    | Permallia palle | Pravara nagar | Puga lur     | Pune         | Rud rur      | Sameer wadi  | Sanke shwar  | Thiru valla  | Mean         |  |
|-------|-------------|--------------|--------------|---------------|--------------|----------|--------------|--------------|--------------|--------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| 1     | Co 17001    | 20.81        | 19.49        | --            | 22.33        | --       | 21.35        | 21.00        | 17.47        | 19.04        | 19.87           | 20.75         | 16.85        | 20.82        | 20.40        | 20.82        | 21.93        | 17.73        | 20.04        |  |
| 2     | Co 17002    | 21.05        | 19.31        | --            | 21.19        | --       | 20.45        | 19.60        | 18.57        | 18.87        | 17.03           | 20.49         | 16.35        | 20.44        | 19.21        | 19.79        | 21.68        | 17.33        | 19.42        |  |
| 3     | Co 17003    | 21.72        | 19.29        | --            | 20.19        | --       | 21.40        | 21.00        | 16.87        | 19.71        | 20.50           | 21.25         | 19.01        | 19.85        | 20.79        | 21.22        | 21.43        | 17.40        | 20.11        |  |
| 4     | Co 17004    | 20.23        | 18.82        | --            | 19.23        | --       | 21.80        | 18.80        | 17.10        | 17.71        | 17.00           | 18.89         | 16.01        | 18.43        | 18.39        | 20.67        | 19.93        | 18.20        | 18.75        |  |
| 5     | Co 17005    | 21.54        | 21.26        | --            | 18.10        | --       | 22.60        | 19.60        | 18.20        | 17.87        | 16.67           | 19.05         | 18.24        | 19.60        | 19.20        | 22.07        | 18.68        | 17.53        | 19.35        |  |
| 6     | Co 17006    | 20.36        | 19.29        | --            | 22.19        | --       | 23.25        | 21.13        | 17.90        | 18.21        | 19.03           | 18.99         | 19.16        | 20.50        | 18.69        | 21.23        | 21.18        | 17.60        | 19.91        |  |
| 7     | Co 17008    | 20.33        | 19.43        | --            | 19.23        | --       | 19.20        | 20.27        | 18.17        | 16.87        | 18.83           | 18.82         | 16.30        | 20.04        | 19.70        | 21.62        | 19.18        | 17.40        | 19.03        |  |
| 8     | Co 17010    | 19.85        | 19.62        | --            | 20.89        | --       | 22.65        | 20.80        | 17.43        | 17.21        | 19.43           | 18.95         | 17.18        | 20.54        | 18.23        | 22.18        | 22.18        | 17.27        | 19.63        |  |
| 9     | Co 17012    | 19.07        | 19.42        | --            | 19.56        | --       | 20.75        | 18.47        | 16.23        | 17.21        | 15.00           | 18.59         | 16.19        | 18.89        | 17.24        | 20.60        | 17.93        | 18.00        | 18.21        |  |
| 10    | Co 17013    | 19.97        | 18.46        | --            | 19.26        | --       | 21.45        | 20.33        | 18.67        | 17.71        | 16.77           | 19.65         | 17.19        | 18.65        | 18.71        | 19.75        | 19.93        | 16.80        | 18.89        |  |
| 11    | Co 17014    | 19.20        | 18.64        | --            | 19.36        | --       | 21.20        | 19.30        | 17.37        | 17.54        | 16.73           | 20.65         | 16.41        | 18.52        | 18.67        | 21.57        | 20.18        | 14.57        | 18.66        |  |
| 12    | CoVC 17061  | 20.41        | 19.08        | --            | 19.09        | --       | 19.90        | 20.00        | 17.03        | 17.21        | 16.27           | 20.75         | 17.55        | 18.81        | 16.69        | 18.15        | 16.92        | 18.00        | 18.39        |  |
| 13    | CoN 17071   | 19.72        | 19.19        | --            | 19.13        | --       | 19.20        | 18.13        | 16.43        | 17.54        | 16.60           | 19.99         | 17.18        | 18.89        | 17.39        | 20.90        | 18.68        | 17.00        | 18.40        |  |
| 14    | CoN 17072   | 19.16        | 18.74        | --            | 18.09        | --       | 21.00        | 17.67        | 16.07        | 17.21        | 17.37           | 19.95         | 15.02        | 18.31        | 15.79        | 19.44        | 18.18        | 15.75        | 17.85        |  |
| 15    | MS 17081    | 17.90        | 18.87        | --            | 17.39        | --       | 20.15        | 18.40        | 18.27        | 16.76        | 15.87           | 20.75         | 14.17        | 18.34        | 18.19        | 17.54        | 18.18        | 16.13        | 17.79        |  |
| 16    | MS 17082    | 19.48        | 19.47        | --            | 19.23        | --       | 21.20        | 19.80        | 18.00        | 17.89        | 17.90           | 20.35         | 13.78        | 19.81        | 17.20        | 20.85        | 17.68        | 13.50        | 18.41        |  |
| 17    | CoVSI 17121 | 19.67        | 19.01        | --            | 19.03        | --       | 22.75        | 19.13        | 16.20        | 17.21        | 15.10           | 21.05         | 14.54        | 20.36        | 18.19        | 20.73        | 16.67        | 16.23        | 18.39        |  |
| 18    | CoT 17366   | 19.90        | 18.82        | --            | 20.03        | --       | 21.45        | 18.80        | 16.10        | 17.21        | 17.40           | 18.79         | 17.03        | 19.38        | 18.69        | 19.44        | 17.93        | 17.00        | 18.53        |  |
|       | <b>Stds</b> |              |              |               |              |          |              |              |              |              |                 |               |              |              |              |              |              |              |              |  |
| 1     | Co 86032    | 19.75        | 20.82        | --            | 17.09        | --       | 20.20        | 19.93        | 18.47        | 18.71        | 18.87           | 20.75         | 18.97        | 20.46        | 17.30        | 21.53        | 20.18        | 18.50        | 19.44        |  |
| 2     | CoC 671     | 22.95        | 19.85        | --            | 21.23        | --       | 22.15        | 20.90        | 18.47        | 19.21        | 19.47           | 21.29         | 17.67        | 21.95        | 17.59        | 20.64        | 20.93        | 19.27        | 20.24        |  |
| 3     | Co 09004    | 22.74        | --           | --            | 20.92        | --       | 22.65        | 20.93        | 17.87        | 19.71        | 18.07           | 19.59         | 18.20        | 21.29        | 20.39        | 22.76        | 21.43        | 17.60        | 20.30        |  |
|       | <b>Mean</b> | <b>20.28</b> | <b>19.34</b> | --            | <b>19.66</b> | --       | <b>21.27</b> | <b>19.71</b> | <b>17.47</b> | <b>17.93</b> | <b>17.61</b>    | <b>19.97</b>  | <b>16.82</b> | <b>19.71</b> | <b>18.41</b> | <b>21.64</b> | <b>19.57</b> | <b>17.09</b> | <b>19.10</b> |  |
|       | SE(m)       | 0.35         | 0.68         | --            | 0.64         | --       | 0.55         | 0.4          | 0.23         | 0.66         | 0.44            | 0.34          | 0.27         | 0.27         | 0.14         | 0.62         | 0.59         | 0.76         |              |  |
|       | CD          | 1.01         | 1.96         | --            | 1.83         | --       | 1.61         | 1.15         | 0.65         | 1.89         | 1.26            | 0.98          | 0.78         | 0.78         | 0.41         | 1.78         | 1.75         | 2.15         |              |  |
|       | CV          | 2.99         | 6.13         | --            | 5.65         | --       | 3.63         | 3.54         | 2.25         | 6.38         | 4.32            | 2.99          | 2.82         | 2.40         | 1.36         | 5.20         | 4.28         | 7.66         |              |  |

**Table 2.5.17 Purity % at 300 days**

| S.No. | Entries     | Coimbatore   | Akola        | Basmathnagar | Belgaum      | Kawarda | Kolhapur     | Mananya      | Navsari      | Padegaon     | Permallapalle | Pravarannagar | Pugalur      | Pune         | Rudrur        | Sameerwadi   | Sanke shwar  | Thiruvalla   | Mean         |  |
|-------|-------------|--------------|--------------|--------------|--------------|---------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--|
| 1     | Co 17001    | 91.73        | 93.00        | --           | 91.77        | --      | 79.61        | 94.1         | 88.34        | 90.46        | 88.60         | 90.99         | 87.47        | 90.28        | 94.40         | 81.83        | 90.04        | 86.35        | 89.26        |  |
| 2     | Co 17002    | 63.52        | 93.99        | --           | 91.54        | --      | 76.69        | 93.26        | 86.68        | 90.16        | 87.97         | 87.47         | 86.84        | 88.88        | 88.01         | 78.44        | 88.14        | 86.10        | 85.85        |  |
| 3     | Co 17003    | 90.77        | 95.65        | --           | 90.90        | --      | 77.76        | 92.03        | 87.84        | 93.69        | 87.87         | 93.17         | 85.44        | 90.90        | 94.60         | 79.08        | 90.83        | 86.24        | 89.12        |  |
| 4     | Co 17004    | 88.66        | 92.98        | --           | 89.46        | --      | 74.53        | 93.86        | 84.94        | 91.11        | 88.43         | 94.91         | 85.44        | 90.72        | 81.81         | 77.75        | 86.29        | 86.18        | 87.14        |  |
| 5     | Co 17005    | 91.70        | 95.66        | --           | 91.46        | --      | 79.10        | 93.65        | 86.85        | 91.09        | 88.20         | 92.60         | 86.84        | 90.47        | 86.92         | 78.46        | 90.47        | 86.00        | 88.63        |  |
| 6     | Co 17006    | 90.24        | 95.67        | --           | 92.39        | --      | 81.74        | 93.97        | 85.40        | 90.42        | 87.90         | 89.77         | 87.78        | 90.58        | 82.74         | 80.14        | 90.05        | 86.13        | 88.33        |  |
| 7     | Co 17008    | 90.84        | 92.01        | --           | 92.99        | --      | 76.13        | 94.31        | 86.57        | 90.02        | 87.33         | 90.62         | 85.72        | 91.19        | 91.71         | 77.75        | 87.16        | 85.82        | 88.01        |  |
| 8     | Co 17010    | 90.65        | 93.99        | --           | 94.49        | --      | 82.01        | 93.06        | 88.14        | 94.32        | 88.27         | 89.52         | 85.90        | 91.29        | 82.52         | 81.19        | 89.52        | 86.03        | 88.73        |  |
| 9     | Co 17012    | 90.38        | 94.00        | --           | 90.82        | --      | 78.07        | 93.46        | 84.70        | 90.82        | 88.03         | 88.32         | 86.38        | 90.46        | 84.84         | 77.95        | 92.06        | 85.95        | 87.75        |  |
| 10    | Co 17013    | 90.14        | 93.99        | --           | 92.38        | --      | 80.35        | 93.75        | 87.61        | 88.91        | 87.60         | 94.14         | 84.37        | 89.39        | 87.92         | 76.49        | 85.86        | 86.17        | 87.94        |  |
| 11    | Co 17014    | 88.89        | 94.95        | --           | 91.22        | --      | 75.77        | 94.12        | 84.55        | 91.03        | 85.90         | 90.88         | 84.43        | 90.74        | 86.02         | 80.16        | 91.83        | 86.19        | 87.78        |  |
| 12    | CoVC 17061  | 90.91        | 95.67        | --           | 91.23        | --      | 77.28        | 94.34        | 85.65        | 87.22        | 87.13         | 91.14         | 85.60        | 88.51        | 78.89         | 75.32        | 85.74        | 86.32        | 86.73        |  |
| 13    | CoN 17071   | 89.63        | 95.01        | --           | 90.35        | --      | 75.48        | 94.03        | 84.33        | 89.47        | 87.97         | 90.51         | 85.50        | 89.22        | 81.22         | 75.57        | 84.78        | 85.59        | 86.58        |  |
| 14    | CoN 17072   | 88.85        | 93.03        | --           | 91.63        | --      | 80.46        | 93.62        | 85.57        | 88.50        | 87.63         | 88.59         | 83.35        | 88.96        | 80.60         | 74.43        | 87.85        | 86.60        | 86.65        |  |
| 15    | MS 17081    | 87.43        | 95.00        | --           | 91.43        | --      | 75.22        | 94.15        | 85.13        | 87.53        | 87.77         | 90.92         | 84.62        | 91.69        | 82.76         | 75.07        | 86.59        | 86.38        | 86.78        |  |
| 16    | MS 17082    | 87.76        | 94.96        | --           | 88.51        | --      | 78.00        | 93.76        | 87.56        | 90.84        | 88.17         | 90.96         | 84.90        | 91.14        | 85.00         | 76.28        | 84.24        | 86.07        | 87.21        |  |
| 17    | CoVSI 17121 | 89.56        | 95.02        | --           | 87.56        | --      | 81.05        | 94.31        | 85.07        | 89.07        | 87.20         | 90.10         | 83.94        | 91.42        | 86.73         | 76.61        | 87.31        | 85.88        | 87.39        |  |
| 18    | CoT 17366   | 90.08        | 94.05        | --           | 90.76        | --      | 78.11        | 94.55        | 86.09        | 90.86        | 88.20         | 88.74         | 84.07        | 90.82        | 82.79         | 74.2         | 84.43        | 86.44        | 86.95        |  |
|       | <b>Stds</b> |              |              |              |              |         |              |              |              |              |               |               |              |              |               |              |              |              |              |  |
| 1     | Co 86032    | 90.04        | 95.02        | --           | 91.52        | --      | 80.16        | 94.73        | 86.75        | 92.44        | 88.33         | 90.59         | 87.24        | 92.34        | 79.06         | 80.78        | 90.56        | 86.48        | 88.40        |  |
| 2     | CoC 671     | 93.19        | 92.00        | --           | 93.27        | --      | 75.34        | 94.11        | 86.96        | 92.62        | 88.17         | 89.79         | 86.14        | 92.33        | 85.61         | 77.84        | 90.75        | 86.33        | 88.30        |  |
| 3     | Co 09004    | 92.74        | --           | --           | 91.27        | --      | 79.43        | 94.19        | 86.26        | 92.90        | 88.47         | 89.65         | 87.14        | 92.45        | 90.06         | 80.89        | 91.87        | 86.56        | 88.85        |  |
|       | <b>Mean</b> | <b>88.94</b> | <b>94.35</b> | --           | <b>91.28</b> | --      | <b>78.20</b> | <b>93.87</b> | <b>86.24</b> | <b>90.64</b> | <b>87.86</b>  | <b>90.63</b>  | <b>85.66</b> | <b>90.66</b> | <b>85.439</b> | <b>79.84</b> | <b>88.40</b> | <b>86.18</b> | <b>87.88</b> |  |
|       | SE(m)       | 5.97         | 0.67         | --           | 1.66         | --      | 2.49         | 0.43         | 0.57         | 1.82         | 0.34          | 0.57          | 0.45         | 0.48         | 0.6527        | 0.87         | 1.73         | 0.22         |              |  |
|       | CD          | 6.89         | 1.91         | --           | 4.75         | --      | NS           | 1.23         | 1.64         | 5.20         | 0.97          | 1.63          | 1.29         | 1.36         | 1.87          | 2.50         | 5.10         | NS           |              |  |
|       | CV          | 11.62        | 1.23         | --           | 3.15         | --      | 4.50         | 0.79         | 1.15         | NS           | 0.67          | 1.08          | 0.91         | 0.91         | 1.32          | 1.94         | 2.77         | 0.44         |              |  |

Table 2.5.18 Pol % cane at 300 days

| S.No. | Entries     | Akola        | Nav sari     | Pade gaon    | Puga lur     | Sanke shwar  | Mean         |
|-------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | Co 17001    | 13.98        | 11.88        | 12.81        | 11.48        | 15.44        | 13.12        |
| 2     | Co 17002    | 12.89        | 12.08        | 12.99        | 10.97        | 14.29        | 12.64        |
| 3     | Co 17003    | 13.93        | 11.15        | 14.14        | 12.61        | 15.05        | 13.38        |
| 4     | Co 17004    | 13.17        | 10.93        | 12.29        | 10.61        | 13.58        | 12.12        |
| 5     | Co 17005    | 15.16        | 11.91        | 12.41        | 12.28        | 12.29        | 12.81        |
| 6     | Co 17006    | 13.72        | 11.62        | 12.34        | 13.05        | 14.16        | 12.98        |
| 7     | Co 17008    | 13.82        | 11.80        | 11.89        | 10.84        | 13.27        | 12.32        |
| 8     | Co 17010    | 14.2         | 11.62        | 12.34        | 11.51        | 15.09        | 12.95        |
| 9     | Co 17012    | 14.25        | 10.37        | 12.25        | 10.82        | 12.83        | 12.10        |
| 10    | Co 17013    | 13.46        | 12.46        | 12.29        | 11.23        | 13.32        | 12.55        |
| 11    | Co 17014    | 13.15        | 11.23        | 12.29        | 10.75        | 14.51        | 12.39        |
| 12    | CoVC 17061  | 13.54        | 11.12        | 11.27        | 11.72        | 10.99        | 11.73        |
| 13    | CoN 17071   | 13.95        | 10.67        | 11.84        | 11.41        | 12.3         | 12.03        |
| 14    | CoN 17072   | 13.54        | 10.59        | 11.96        | 9.68         | 12.71        | 11.70        |
| 15    | MS 17081    | 13.94        | 11.96        | 11.27        | 9.28         | 12.45        | 11.78        |
| 16    | MS 17082    | 14.2         | 12.11        | 12.51        | 9.07         | 12.01        | 11.98        |
| 17    | CoVSI 17121 | 13.95        | 10.50        | 11.63        | 9.45         | 11.37        | 11.38        |
| 18    | CoT 17366   | 13.53        | 10.54        | 12.09        | 11.15        | 11.91        | 11.84        |
|       | <b>Stds</b> |              |              |              |              |              |              |
| 1     | Co 86032    | 15.07        | 12.33        | 13.26        | 12.77        | 14.48        | 13.58        |
| 2     | CoC 671     | 13.76        | 12.33        | 13.62        | 11.75        | 15.2         | 13.33        |
| 3     | Co 09004    | ---          | 11.87        | 13.80        | 12.22        | 15.34        | 13.31        |
|       | <b>Mean</b> | <b>13.85</b> | <b>11.48</b> | <b>12.44</b> | <b>11.18</b> | <b>13.46</b> | <b>12.48</b> |
|       | SE(m)       | 0.54         | 0.18         | 0.62         | 0.18         | 0.5          |              |
|       | CD          | 1.55         | 0.52         | 1.78         | 0.53         | 1.46         |              |
|       | CV          | 6.78         | 2.73         | NS           | 2.85         | 5.21         |              |

Table 2.5.19 Fibre % at 300 days

| S.No. | Entries     | Nav sari     | Pade gaon    | Puga lur     | Sanke shwar  | Mean         |
|-------|-------------|--------------|--------------|--------------|--------------|--------------|
| 1     | Co 17001    | 13.02        | 15.62        | 12.12        | 11.79        | 13.14        |
| 2     | Co 17002    | 14.92        | 13.88        | 12.73        | 15.3         | 14.21        |
| 3     | Co 17003    | 14.72        | 13.44        | 12.38        | 12.69        | 13.31        |
| 4     | Co 17004    | 14.72        | 13.83        | 12.46        | 11.09        | 13.03        |
| 5     | Co 17005    | 14.66        | 13.88        | 12.48        | 17.24        | 14.57        |
| 6     | Co 17006    | 13.97        | 15.03        | 12.40        | 15.7         | 14.28        |
| 7     | Co 17008    | 14.96        | 11.76        | 12.43        | 10.52        | 12.42        |
| 8     | Co 17010    | 14.38        | 13.98        | 12.01        | 14.01        | 13.60        |
| 9     | Co 17012    | 14.57        | 11.86        | 12.66        | 12.33        | 12.86        |
| 10    | Co 17013    | 13.83        | 12.03        | 12.59        | 12.03        | 12.62        |
| 11    | Co 17014    | 13.48        | 13.27        | 12.36        | 11.72        | 12.71        |
| 12    | CoVC 17061  | 13.77        | 15.17        | 11.95        | 14.23        | 13.78        |
| 13    | CoN 17071   | 13.00        | 14.61        | 12.29        | 12.39        | 13.07        |
| 14    | CoN 17072   | 12.98        | 11.53        | 12.66        | 10.39        | 11.89        |
| 15    | MS 17081    | 13.10        | 13.23        | 12.63        | 10.83        | 12.45        |
| 16    | MS 17082    | 13.19        | 13.01        | 12.48        | 9.41         | 12.02        |
| 17    | CoVSI 17121 | 13.82        | 14.15        | 12.65        | 11.89        | 13.13        |
| 18    | CoT 17366   | 13.94        | 12.82        | 12.13        | 11.31        | 12.55        |
|       | <b>Stds</b> |              |              |              |              |              |
| 1     | Co 86032    | 13.06        | 13.30        | 12.79        | 10.78        | 12.48        |
| 2     | CoC 671     | 13.27        | 13.47        | 12.83        | 9.95         | 12.38        |
| 3     | Co 09004    | 12.98        | 14.64        | 12.90        | 12.12        | 13.16        |
|       | <b>Mean</b> | <b>13.83</b> | <b>13.55</b> | <b>12.46</b> | <b>12.27</b> | <b>13.03</b> |
|       | SE(m)       | 0.10         | 0.28         | 0.26         | 0.73         |              |
|       | CD          | 0.29         | 0.81         | 0.73         | 2.15         |              |
|       | CV          | 1.27         | 3.62         | 3.56         | 8.39         |              |

Table 2.5.20 Extraction % at 300 days

| S.No. | Entries     | Coimbatore | Akola | Basmathnagar | Belgaum      | Kawarda | Kolhapur     | Mananya      | Navsari      | Padegaon     | Permallapalle | Pravarannagar | Pugalur      | Pune | Rudrur | Sameerwadi | Sanke shwar  | Thiruvalla   | Mean         |
|-------|-------------|------------|-------|--------------|--------------|---------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|------|--------|------------|--------------|--------------|--------------|
| 1     | Co 17001    | --         | --    | --           | 61.30        | --      | 53.21        | 49.36        | 54.64        | 50.68        | 65.99         | 46.65         | 51.49        | --   | --     | --         | 55.91        | 52.27        | 54.15        |
| 2     | Co 17002    | --         | --    | --           | 60.23        | --      | 61.67        | 44.46        | 56.21        | 42.25        | 63.53         | 49.33         | 51.35        | --   | --     | --         | 57.49        | 54.54        | 54.11        |
| 3     | Co 17003    | --         | --    | --           | 61.39        | --      | 59.91        | 51.47        | 56.99        | 48.95        | 62.58         | 46.13         | 52.85        | --   | --     | --         | 59.66        | 53.31        | 55.32        |
| 4     | Co 17004    | --         | --    | --           | 64.15        | --      | 63.86        | 49.5         | 56.52        | 50.96        | 83.53         | 49.24         | 50.97        | --   | --     | --         | 58.58        | 53.91        | 58.12        |
| 5     | Co 17005    | --         | --    | --           | 62.38        | --      | 51.94        | 44.95        | 56.55        | 51.15        | 84.20         | 48.44         | 51.18        | --   | --     | --         | 57.62        | 51.68        | 56.01        |
| 6     | Co 17006    | --         | --    | --           | 60.36        | --      | 53.60        | 49.03        | 54.52        | 50.61        | 74.24         | 48.09         | 52.07        | --   | --     | --         | 53.33        | 53.32        | 54.92        |
| 7     | Co 17008    | --         | --    | --           | 54.14        | --      | 47.23        | 50.26        | 55.90        | 48.02        | 68.52         | 46.52         | 51.33        | --   | --     | --         | 46.16        | 51.26        | 51.93        |
| 8     | Co 17010    | --         | --    | --           | 60.36        | --      | 57.88        | 44.56        | 56.32        | 54.26        | 76.36         | 48.66         | 52.71        | --   | --     | --         | 57.17        | 53.68        | 56.20        |
| 9     | Co 17012    | --         | --    | --           | 64.71        | --      | 51.33        | 54.76        | 54.85        | 52.88        | 78.00         | 44.05         | 51.60        | --   | --     | --         | 59.31        | 55.72        | 56.72        |
| 10    | Co 17013    | --         | --    | --           | 45.26        | --      | 48.19        | 44.19        | 53.86        | 42.75        | 66.78         | 43.40         | 51.50        | --   | --     | --         | 50.21        | 52.36        | 49.85        |
| 11    | Co 17014    | --         | --    | --           | 63.56        | --      | 58.62        | 38.98        | 54.59        | 57.16        | 88.67         | 50.37         | 49.80        | --   | --     | --         | 57.32        | 55.73        | 57.48        |
| 12    | CoVC.17061  | --         | --    | --           | 63.93        | --      | 68.85        | 48.95        | 54.54        | 52.95        | 68.15         | 44.84         | 49.73        | --   | --     | --         | 61.79        | 55.20        | 56.89        |
| 13    | CoN.17071   | --         | --    | --           | 56.31        | --      | 73.72        | 48.76        | 55.30        | 46.87        | 68.68         | 48.99         | 49.27        | --   | --     | --         | 59.46        | 50.74        | 55.81        |
| 14    | CoN.17072   | --         | --    | --           | 62.30        | --      | 62.30        | 57.47        | 55.24        | 57.04        | 100.28        | 46.02         | 52.84        | --   | --     | --         | 59.46        | 59.70        | 61.26        |
| 15    | MS.17081    | --         | --    | --           | 63.44        | --      | 59.23        | 55.51        | 58.69        | 53.97        | 81.95         | 50.19         | 51.72        | --   | --     | --         | 62.19        | 58.64        | 59.55        |
| 16    | MS.17082    | --         | --    | --           | 65.66        | --      | 54.49        | 51.78        | 57.69        | 51.82        | 76.83         | 48.54         | 53.44        | --   | --     | --         | 61.54        | 50.95        | 57.27        |
| 17    | CoVSI.17121 | --         | --    | --           | 64.98        | --      | 76.08        | 52.81        | 55.21        | 54.92        | 94.91         | 46.44         | 50.58        | --   | --     | --         | 62.5         | 57.36        | 61.58        |
| 18    | CoT.17366   | --         | --    | --           | 63.97        | --      | 56.47        | 53.8         | 53.36        | 53.03        | 59.23         | 43.99         | 50.64        | --   | --     | --         | 59.51        | 54.53        | 54.85        |
|       | <b>Stds</b> |            |       |              |              |         |              |              |              |              |               |               |              |      |        |            |              |              |              |
| 1     | Co.86032    | --         | --    | --           | 62.74        | --      | 54.19        | 50.52        | 54.15        | 50.66        | 53.35         | 48.49         | 52.48        | --   | --     | --         | 60.36        | 53.36        | 54.03        |
| 2     | CoC.671     | --         | --    | --           | 62.08        | --      | 63.28        | 50.04        | 52.05        | 45.20        | 65.11         | 44.79         | 52.42        | --   | --     | --         | 57.22        | 51.34        | 54.35        |
| 3     | Co.09004    | --         | --    | --           | 63.35        | --      | 50.27        | 52.31        | 52.99        | 48.62        | 70.89         | 42.69         | 51.92        | --   | --     | --         | 60.14        | 53.25        | 54.64        |
|       | <b>Mean</b> |            |       |              | <b>61.27</b> |         | <b>58.40</b> | <b>47.18</b> | <b>55.25</b> | <b>50.70</b> | <b>73.89</b>  | <b>46.94</b>  | <b>51.52</b> |      |        |            | <b>57.95</b> | <b>53.94</b> | <b>55.70</b> |
|       | SE(m)       | --         | --    | --           | 1.64         | --      | 2.90         | 3.84         | 0.84         | 2.94         | 4.81          | 0.56          | 1.80         | --   | --     | --         | 1.48         | 1.998        |              |
|       | CD          | --         | --    | --           | 4.69         | --      | 8.56         | 10.97        | 2.41         | 8.40         | 13.76         | 1.60          | 5.15         | --   | --     | --         | 4.37         | NS           |              |
|       | CV          | --         | --    | --           | 4.64         | --      | 7.03         | 14.09        | 2.65         | 10.04        | 11.28         | 2.07          | 6.06         | --   | --     | --         | 3.61         | 6.42         |              |

Table 2.5.21 NMC at 300 days (\*000/ha)

| S.No. | Entries     | Coimbatore   | Akola        | Basmath nagar | Belgaum      | Kawarda | Kolhapur | Man-dya      | Navsari       | Padgaon      | Permallapalle | Pravara nagar | Pugalur       | Pune | Rudrur | Sameerwadi   | Sanke shwar  | Thiruvalla    | Mean         |
|-------|-------------|--------------|--------------|---------------|--------------|---------|----------|--------------|---------------|--------------|---------------|---------------|---------------|------|--------|--------------|--------------|---------------|--------------|
| 1     | Co 17001    | 83.85        | 67.14        | --            | 71.06        | --      | --       | 81.48        | 112.24        | 75.96        | 72.41         | 105.54        | 103.70        | --   | --     | 52.67        | 69.99        | 120.72        | 84.73        |
| 2     | Co 17002    | 80.98        | 78.02        | --            | 73.26        | --      | --       | 82.41        | 125.21        | 65.68        | 79.83         | 110.72        | 94.77         | --   | --     | 56.67        | 60.64        | 113.89        | 85.17        |
| 3     | Co 17003    | 82.06        | 81.85        | --            | 93.40        | --      | --       | 81.02        | 125.44        | 83.58        | 72.51         | 105.36        | 112.17        | --   | --     | 52.33        | 53.59        | 106.95        | 87.52        |
| 4     | Co 17004    | 82.06        | 70.09        | --            | 73.96        | --      | --       | 87.32        | 131.04        | 71.92        | 73.85         | 107.23        | 99.76         | --   | --     | 46.00        | 66.07        | 112.27        | 85.13        |
| 5     | Co 17005    | 83.13        | 98.35        | --            | 69.44        | --      | --       | 74.05        | 101.30        | 69.73        | 78.90         | 118.96        | 123.08        | --   | --     | 50.00        | 65.26        | 100.23        | 86.04        |
| 6     | Co 17006    | 80.98        | 71.36        | --            | 59.61        | --      | --       | 55.93        | 107.25        | 65.51        | 57.27         | 123.93        | 115.07        | --   | --     | 48.33        | 62.72        | 103.71        | 79.31        |
| 7     | Co 17008    | 41.21        | 68.68        | --            | 67.13        | --      | --       | 59.17        | 110.80        | 51.79        | 61.90         | 114.93        | 111.36        | --   | --     | 42.33        | 46.55        | 94.21         | 72.51        |
| 8     | Co 17010    | 77.76        | 70.21        | --            | 78.24        | --      | --       | 74.26        | 122.26        | 48.02        | 78.80         | 97.15         | 111.13        | --   | --     | 54.33        | 56.83        | 121.41        | 82.53        |
| 9     | Co 17012    | 85.28        | 68.04        | --            | 84.61        | --      | --       | 71.95        | 109.26        | 85.92        | 73.65         | 103.49        | 121.22        | --   | --     | 54.00        | 70.46        | 96.30         | 85.35        |
| 10    | Co 17013    | 74.53        | 68.93        | --            | 65.39        | --      | --       | 78.98        | 110.40        | 72.28        | 72.41         | 113.03        | 106.84        | --   | --     | 56.67        | 53.13        | 89.12         | 80.14        |
| 11    | Co 17014    | 43.00        | 67.40        | --            | 74.31        | --      | --       | 71.52        | 116.28        | 65.03        | 61.59         | 118.13        | 104.17        | --   | --     | 50.67        | 42.39        | 93.40         | 75.66        |
| 12    | CoVC 17061  | 79.19        | 69.96        | --            | 95.25        | --      | --       | 93.02        | 121.64        | 75.62        | 79.41         | 114.08        | 131.66        | --   | --     | 52.67        | 70.57        | 107.76        | 90.90        |
| 13    | CoN 17071   | 73.82        | 67.53        | --            | 93.87        | --      | --       | 79.26        | 116.90        | 93.96        | 79.41         | 112.31        | 133.75        | --   | --     | 56.67        | 62.83        | 108.45        | 89.90        |
| 14    | CoN 17072   | 73.10        | 73.92        | --            | 67.25        | --      | --       | 68.80        | 118.23        | 53.03        | 73.54         | 116.56        | 110.55        | --   | --     | 61.33        | 60.98        | 85.88         | 80.26        |
| 15    | MS 17081    | 71.67        | 66.89        | --            | 78.94        | --      | --       | 95.74        | 123.93        | 80.32        | 73.54         | 111.82        | 129.57        | --   | --     | 48.33        | 69.65        | 120.83        | 89.27        |
| 16    | MS 17082    | 73.82        | 65.10        | --            | 86.57        | --      | --       | 76.57        | 140.12        | 79.63        | 72.82         | 99.95         | 130.38        | --   | --     | 60.33        | 62.14        | 93.40         | 86.74        |
| 17    | CoVSI 17121 | 72.38        | 65.74        | --            | 75.00        | --      | --       | 67.59        | 114.60        | 69.19        | 50.26         | 116.24        | 96.86         | --   | --     | 50.00        | 68.61        | 88.08         | 77.88        |
| 18    | CoT 17366   | 75.25        | 69.19        | --            | 83.91        | --      | --       | 77.41        | 112.61        | 77.16        | 70.35         | 118.38        | 128.41        | --   | --     | 66.67        | 71.49        | 107.18        | 88.17        |
|       | <b>Stds</b> |              |              |               |              |         |          |              |               |              |               |               |               |      |        |              |              |               |              |
| 1     | Co 86032    | 79.55        | 92.59        | --            | 112.15       | --      | --       | 101.30       | 108.93        | 80.71        | 83.53         | 130.70        | 145.12        | --   | --     | 94.67        | 80.16        | 121.53        | 102.58       |
| 2     | CoC 671     | 72.38        | 92.59        | --            | 83.68        | --      | --       | 71.30        | 103.88        | 70.15        | 84.46         | 119.90        | 160.78        | --   | --     | 58.00        | 60.64        | 106.25        | 90.33        |
| 3     | Co 09004    | 89.58        | --           | --            | 78.01        | --      | --       | 93.24        | 106.20        | 73.36        | 73.13         | 119.66        | 125.49        | --   | --     | 51.00        | 76.58        | 113.19        | 90.86        |
|       | <b>Mean</b> | <b>75.03</b> | <b>74.02</b> | --            | <b>79.29</b> | --      | --       | <b>78.20</b> | <b>116.21</b> | <b>71.84</b> | <b>72.55</b>  | <b>113.24</b> | <b>118.85</b> | --   | --     | <b>55.41</b> | <b>63.39</b> | <b>104.99</b> | <b>85.25</b> |
|       | SE(m)       | 4.23         | 3.62         | --            | 4.68         | --      | --       | 2.84         | 3.85          | 2.37         | 5.10          | 0.27          | 7.15          | --   | --     | 5.87         | 9.74         | 5.08          |              |
|       | CD          | 10.01        | 10.36        | --            | 13.37        | --      | --       | 8.12         | 10.99         | 6.78         | 14.59         | 0.78          | 20.45         | --   | --     | 16.84        | 28.74        | 14.45         |              |
|       | CV          | 8.56         | 8.51         | --            | 10.22        | --      | --       | 6.30         | 5.74          | 5.72         | 12.19         | 0.42          | 10.43         | --   | --     | 18.35        | 21.73        | 8.38          |              |

**Table 2.5.22 Stalk length (cm) at 300 days**

| S.No.       | Entries     | Coimbatore    | Akola         | Basmathnagar | Belgaum       | Kawarda | Kolhapur      | Manadya       | Navsari       | Padegaon      | Permallapalle | Pravaranagar  | Pugalur       | Pune          | Rudrur | Sameerwadi    | Sanke shwar   | Thiruvalla    | Mean          |
|-------------|-------------|---------------|---------------|--------------|---------------|---------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|---------------|---------------|---------------|---------------|
| 1           | Co 17001    | 278.33        | 214.00        | --           | 264.50        | --      | 261.25        | 207.33        | 215.00        | 201.67        | 293.00        | 218.00        | 260.73        | 248.11        | --     | 272.00        | 286.00        | 229.33        | 246.38        |
| 2           | Co 17002    | 263.33        | 210.00        | --           | 288.50        | --      | 253.75        | 218.00        | 235.33        | 200.00        | 326.67        | 240.00        | 287.55        | 245.08        | --     | 284.00        | 270.00        | 192.67        | 251.06        |
| 3           | Co 17003    | 218.33        | 194.00        | --           | 272.83        | --      | 228.75        | 199.67        | 240.00        | 198.33        | 258.00        | 203.00        | 238.43        | 226.19        | --     | 262.66        | 211.50        | 194.33        | 224.72        |
| 4           | Co 17004    | 273.33        | 213.00        | --           | 331.33        | --      | 260.00        | 230.67        | 231.67        | 205.00        | 327.67        | 195.00        | 255.97        | 209.22        | --     | 272.66        | 277.00        | 239.67        | 251.59        |
| 5           | Co 17005    | 286.67        | 259.00        | --           | 281.83        | --      | 278.75        | 224.67        | 230.00        | 250.00        | 328.33        | 221.33        | 270.70        | 278.64        | --     | 303.66        | 308.00        | 196.33        | 265.57        |
| 6           | Co 17006    | 228.33        | 233.00        | --           | 239.50        | --      | 201.25        | 200.67        | 215.00        | 178.33        | 296.67        | 226.00        | 268.33        | 211.61        | --     | 277.66        | 275.00        | 222.67        | 233.86        |
| 7           | Co 17008    | 221.67        | 223.00        | --           | 210.67        | --      | 206.25        | 172.00        | 233.67        | 165.00        | 229.33        | 177.33        | 187.17        | 192.08        | --     | 192.66        | 233.50        | 194.33        | 202.76        |
| 8           | Co 17010    | 256.67        | 237.00        | --           | 308.00        | --      | 296.25        | 224.00        | 227.00        | 206.67        | 293.00        | 215.33        | 263.37        | 255.72        | --     | 309.00        | 292.00        | 218.67        | 257.33        |
| 9           | Co 17012    | 265.00        | 238.00        | --           | 296.33        | --      | 266.25        | 210.67        | 240.00        | 208.33        | 323.67        | 220.00        | 283.70        | 280.06        | --     | 309.00        | 294.00        | 228.33        | 261.67        |
| 10          | Co 17013    | 268.33        | 245.00        | --           | 253.83        | --      | 262.50        | 212.00        | 231.67        | 245.00        | 305.00        | 198.66        | 257.62        | 212.11        | --     | 266.66        | 264.00        | 214.67        | 245.50        |
| 11          | Co 17014    | 230.00        | 229.00        | --           | 265.67        | --      | 252.50        | 203.33        | 225.00        | 198.33        | 282.00        | 222.33        | 236.90        | 236.61        | --     | 222.66        | 255.50        | 201.33        | 232.94        |
| 12          | CoVC 17061  | 273.33        | 262.00        | --           | 285.17        | --      | 277.50        | 210.67        | 220.00        | 238.33        | 309.00        | 227.33        | 282.48        | 237.08        | --     | 255.66        | 284.50        | 218.33        | 255.81        |
| 13          | CoN 17071   | 226.67        | 219.00        | --           | 264.67        | --      | 247.50        | 181.33        | 226.67        | 193.00        | 264.33        | 216.66        | 228.77        | 227.03        | --     | 264.00        | 265.50        | 205.67        | 230.77        |
| 14          | CoN 17072   | 248.33        | 245.00        | --           | 301.33        | --      | 196.25        | 206.00        | 238.33        | 211.67        | 261.00        | 195.33        | 224.17        | 220.42        | --     | 238.66        | 257.50        | 217.67        | 232.98        |
| 15          | MS 17081    | 248.33        | 232.00        | --           | 300.50        | --      | 285.00        | 225.33        | 235.00        | 215.00        | 313.67        | 235.00        | 250.37        | 273.03        | --     | 229.66        | 290.00        | 228.67        | 254.40        |
| 16          | MS 17082    | 241.67        | 212.00        | --           | 280.83        | --      | 268.75        | 202.67        | 255.00        | 204.33        | 280.33        | 217.00        | 253.28        | 233.64        | --     | 282.66        | 250.00        | 199.33        | 241.54        |
| 17          | CoVSI 17121 | 231.67        | 229.00        | --           | 285.50        | --      | 227.50        | 192.67        | 250.00        | 218.33        | 288.33        | 215.00        | 228.53        | 239.69        | --     | 260.66        | 289.00        | 187.33        | 238.80        |
| 18          | CoT 17366   | 206.67        | 265.00        | --           | 279.17        | --      | 268.75        | 222.67        | 238.33        | 213.33        | 296.67        | 213.00        | 247.67        | 246.97        | --     | 266.00        | 274.50        | 208.33        | 246.22        |
| <b>Stds</b> |             |               |               |              |               |         |               |               |               |               |               |               |               |               |        |               |               |               |               |
| 1           | Co 86032    | 271.67        | 234.00        | --           | 269.17        | --      | 286.25        | 225.33        | 213.33        | 188.33        | 309.67        | 198.33        | 264.52        | 177.17        | --     | 268.66        | 233.00        | 179.33        | 237.05        |
| 2           | CoC 671     | 268.33        | 222.00        | --           | 271.83        | --      | 237.50        | 204.67        | 223.33        | 220.00        | 274.67        | 181.33        | 236.53        | 207.96        | --     | 281.66        | 254.30        | 193.67        | 234.13        |
| 3           | Co 09004    | 256.67        | --            | --           | 303.67        | --      | 296.25        | 223.33        | 241.67        | 223.33        | 327.67        | 196.33        | 248.50        | 201.75        | --     | 286.66        | 266.00        | 229.33        | 253.93        |
|             | <b>Mean</b> | <b>250.63</b> | <b>231.63</b> | --           | <b>278.80</b> | --      | <b>255.18</b> | <b>209.41</b> | <b>231.71</b> | <b>208.68</b> | <b>294.70</b> | <b>211.06</b> | <b>251.20</b> | <b>231.44</b> | --     | <b>278.99</b> | <b>241.66</b> | <b>209.52</b> | <b>241.76</b> |
|             | SE(m)       | 11.61         | 4.25          | --           | 13.61         | --      | 10.92         | 5.72          | 6.24          | 5.55          | 13.09         | 3.15          | 12.96         | 7.15          | --     | 7.62          | 18.86         | 7.50          |               |
|             | CD          | 23.31         | 12.16         | --           | 38.91         | --      | 32.20         | 16.34         | 17.84         | 15.87         | 37.40         | 9.02          | 34.57         | 20.44         | --     | 21.86         | 55.65         | 21.31         |               |
|             | CV          | 8.02          | 3.19          | --           | 8.46          | --      | 6.05          | -             | 4.67          | 4.61          | 7.69          | 2.58          | 8.34          | 5.49          | --     | 4.94          | 11.04         | 6.20          |               |

Table 2.5.23 Stalk diameter (cm) at 300 days

| S.No. | Entries      | Coim batore | Akola | Basmath nagar | Bel gaum | Kaw arda | Kolha pur | Man dya | Nav sari | Pade gaon | Permallla palle | Pravara nagar | Puga lur | Pune | Rud rur | Sameer wadi | Sanke shwar | Thiru valla | Mean |
|-------|--------------|-------------|-------|---------------|----------|----------|-----------|---------|----------|-----------|-----------------|---------------|----------|------|---------|-------------|-------------|-------------|------|
| 1     | Co 17001     | 2.72        | 2.13  | --            | 2.52     | --       | 2.64      | 2.89    | 2.26     | 2.53      | 2.60            | 2.51          | 2.69     | 3.28 | --      | 2.77        | 3.04        | 2.60        | 2.66 |
| 2     | Co 17002     | 2.89        | 2.20  | --            | 2.53     | --       | 2.63      | 2.78    | 2.33     | 2.53      | 2.43            | 2.33          | 2.75     | 2.90 | --      | 2.97        | 2.68        | 2.78        | 2.62 |
| 3     | Co 17003     | 2.93        | 1.94  | --            | 2.33     | --       | 2.71      | 2.71    | 2.37     | 2.42      | 2.83            | 2.46          | 2.76     | 2.88 | --      | 2.82        | 2.79        | 2.73        | 2.62 |
| 4     | Co 17004     | 3.17        | 2.21  | --            | 2.75     | --       | 2.97      | 3.06    | 2.43     | 2.90      | 3.10            | 2.54          | 3.06     | 2.83 | --      | 2.95        | 2.92        | 2.87        | 2.84 |
| 5     | Co 17005     | 2.85        | 2.43  | --            | 2.58     | --       | 2.64      | 2.54    | 2.28     | 2.63      | 2.97            | 2.53          | 2.63     | 2.37 | --      | 2.88        | 2.61        | 2.38        | 2.59 |
| 6     | Co 17006     | 2.81        | 2.16  | --            | 2.57     | --       | 2.65      | 2.78    | 2.37     | 2.61      | 2.90            | 2.42          | 2.44     | 2.86 | --      | 2.83        | 2.79        | 2.56        | 2.62 |
| 7     | Co 17008     | 3.57        | 2.21  | --            | 3.20     | --       | 3.07      | 3.47    | 2.28     | 2.90      | 3.00            | 2.49          | 3.19     | 3.17 | --      | 3.76        | 3.55        | 2.81        | 3.05 |
| 8     | Co 17010     | 2.70        | 2.10  | --            | 2.35     | --       | 2.93      | 2.76    | 2.42     | 2.95      | 2.30            | 2.38          | 2.92     | 3.10 | --      | 2.80        | 2.59        | 2.50        | 2.63 |
| 9     | Co 17012     | 2.74        | 2.33  | --            | 2.58     | --       | 2.70      | 2.81    | 2.36     | 2.90      | 2.43            | 2.33          | 2.73     | 3.01 | --      | 2.84        | 2.66        | 2.56        | 2.64 |
| 10    | Co 17013     | 3.06        | 2.47  | --            | 2.63     | --       | 2.88      | 3.15    | 2.41     | 3.11      | 2.67            | 2.41          | 3.09     | 2.84 | --      | 3.10        | 2.78        | 2.75        | 2.81 |
| 11    | Co 17014     | 3.09        | 2.36  | --            | 2.60     | --       | 2.96      | 3.17    | 2.42     | 3.14      | 3.20            | 2.49          | 3.24     | 3.28 | --      | 3.18        | 3.10        | 2.89        | 2.94 |
| 12    | CoVC 17061   | 2.86        | 2.32  | --            | 2.67     | --       | 2.76      | 2.77    | 2.33     | 2.58      | 2.63            | 2.52          | 2.86     | 3.03 | --      | 2.74        | 2.63        | 2.37        | 2.65 |
| 13    | CoN 17071    | 2.53        | 2.28  | --            | 2.33     | --       | 2.51      | 2.55    | 2.34     | 2.55      | 2.63            | 2.34          | 2.48     | 2.85 | --      | 2.52        | 2.54        | 2.19        | 2.47 |
| 14    | CoN 17072    | 3.26        | 2.40  | --            | 3.47     | --       | 2.56      | 3.25    | 2.37     | 2.58      | 2.73            | 2.44          | 3.49     | 3.43 | --      | 3.76        | 3.20        | 3.34        | 3.02 |
| 15    | MS 17081     | 2.83        | 2.35  | --            | 2.85     | --       | 2.97      | 3.25    | 2.48     | 2.74      | 2.70            | 2.47          | 3.00     | 3.28 | --      | 3.08        | 3.40        | 2.72        | 2.87 |
| 16    | MS 17082     | 2.90        | 2.20  | --            | 2.85     | --       | 3.43      | 3.15    | 2.52     | 2.79      | 3.00            | 2.52          | 3.01     | 2.94 | --      | 3.24        | 2.87        | 2.35        | 2.84 |
| 17    | CoVSI 17121  | 2.94        | 2.05  | --            | 2.68     | --       | 2.96      | 2.94    | 2.32     | 2.95      | 2.70            | 2.43          | 3.00     | 3.05 | --      | 3.18        | 2.81        | 2.66        | 2.76 |
| 18    | CoT 17366    | 2.85        | 2.20  | --            | 2.78     | --       | 3.13      | 3.05    | 2.43     | 2.61      | 2.77            | 2.48          | 3.13     | 3.09 | --      | 3.16        | 2.66        | 2.46        | 2.77 |
|       | <b>Stds</b>  |             |       |               |          |          |           |         |          |           |                 |               |          |      |         |             |             |             |      |
| 1     | Co 86032     | 2.88        | 2.03  | --            | 2.48     | --       | 2.87      | 3.1     | 2.32     | 2.82      | 2.33            | 2.48          | 2.70     | 2.91 | --      | 2.96        | 2.74        | 2.45        | 2.65 |
| 2     | CoC 671      | 2.90        | 2.45  | --            | 2.50     | --       | 2.92      | 2.98    | 2.53     | 2.63      | 2.37            | 2.46          | 3.28     | 3.08 | --      | 2.76        | 2.78        | 2.30        | 2.71 |
| 3     | Co 09004     | 2.81        | --    | --            | 2.73     | --       | 3.03      | 2.73    | 2.40     | 2.58      | 2.93            | 2.28          | 2.68     | 2.94 | --      | 2.76        | 2.62        | 2.26        | 2.67 |
|       | <b>Mean</b>  | 2.90        | 2.25  | --            | 2.67     | --       | 2.85      | 2.95    | 2.38     | 2.73      | 2.73            | 2.44          | 2.90     | 3.01 | --      | 2.83        | 2.84        | 2.60        | 2.72 |
|       | <b>SE(m)</b> | 0.08        | 0.06  | --            | 0.11     | --       | 0.15      | 0.11    | 0.02     | 0.12      | 0.07            | 0.02          | 0.12     | 0.08 | --      | 0.06        | 0.1         | 0.11        |      |
|       | <b>CD</b>    | 0.24        | 0.16  | --            | 0.33     | --       | 0.43      | 0.32    | 0.06     | 0.34      | 0.19            | 0.06          | 0.34     | 0.23 | --      | 0.18        | 0.30        | 0.31        |      |
|       | <b>CV</b>    | 4.99        | 4.4   | --            | 7.47     | --       | 7.29      | 6.65    | 1.62     | 7.52      | 4.30            | 1.69          | 7.11     | 4.60 | --      | 3.76        | 5.11        | 7.16        |      |

Table 2.5. 24 Single cane weight (kg) at 300 days

| S.No. | Entries     | Coimbatore  | Akola | Basmathnagar | Belgaum     | Kawarda | Kolhapur    | Man-dya     | Navsari     | Padegaon    | Permallapalle | Pravaranagar | Pugalur     | Pune        | Rudrur | Sameerwadi  | Sanke-shwar | Thiruvalla  | Mean        |  |
|-------|-------------|-------------|-------|--------------|-------------|---------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|-------------|--------|-------------|-------------|-------------|-------------|--|
| 1     | Co 17001    | 1.62        | --    | --           | 1.51        | --      | 1.43        | 1.28        | 1.06        | 1.40        | 1.43          | 1.41         | 1.70        | 1.60        | --     | 1.42        |             | 1.04        | 1.41        |  |
| 2     | Co 17002    | 1.36        | --    | --           | 1.60        | --      | 1.26        | 1.21        | 1.15        | 1.18        | 1.40          | 1.62         | 1.87        | 1.41        | --     | 1.47        |             | 1.00        | 1.38        |  |
| 3     | Co 17003    | 1.18        | --    | --           | 1.29        | --      | 1.69        | 0.96        | 1.21        | 1.11        | 1.39          | 1.16         | 1.42        | 1.44        | --     | 1.75        |             | 0.98        | 1.30        |  |
| 4     | Co 17004    | 1.84        | --    | --           | 2.33        | --      | 1.67        | 1.49        | 1.19        | 1.52        | 1.51          | 1.62         | 1.57        | 1.27        | --     | 1.59        |             | 1.42        | 1.58        |  |
| 5     | Co 17005    | 1.54        | --    | --           | 1.64        | --      | 1.55        | 1.27        | 1.02        | 1.41        | 1.20          | 1.57         | 1.16        | 1.30        | --     | 1.33        |             | 0.90        | 1.32        |  |
| 6     | Co 17006    | 1.19        | --    | --           | 1.54        | --      | 1.50        | 1.15        | 1.02        | 1.27        | 1.18          | 1.45         | 1.32        | 1.33        | --     | 1.59        |             | 1.19        | 1.31        |  |
| 7     | Co 17008    | 1.56        | --    | --           | 1.77        | --      | 1.70        | 1.4         | 1.09        | 1.71        | 1.54          | 1.42         | 1.36        | 1.27        | --     | 1.50        |             | 1.35        | 1.47        |  |
| 8     | Co 17010    | 1.33        | --    | --           | 1.56        | --      | 1.56        | 1.2         | 1.15        | 1.45        | 1.19          | 1.47         | 1.42        | 1.51        | --     | 1.72        |             | 1.29        | 1.40        |  |
| 9     | Co 17012    | 1.39        | --    | --           | 1.78        | --      | 1.58        | 1.23        | 1.09        | 1.62        | 1.40          | 1.29         | 1.22        | 1.75        | --     | 1.60        |             | 1.06        | 1.42        |  |
| 10    | Co 17013    | 1.58        | --    | --           | 1.48        | --      | 1.91        | 1.37        | 1.25        | 1.62        | 1.36          | 1.09         | 1.34        | 1.31        | --     | 1.90        |             | 1.20        | 1.45        |  |
| 11    | Co 17014    | 1.71        | --    | --           | 1.50        | --      | 1.56        | 1.36        | 0.97        | 1.59        | 1.36          | 1.52         | 1.28        | 1.65        | --     | 1.49        |             | 1.49        | 1.46        |  |
| 12    | CoVC 17061  | 1.59        | --    | --           | 1.68        | --      | 1.43        | 1.19        | 1.15        | 1.30        | 1.34          | 1.20         | 1.40        | 1.45        | --     | 1.43        |             | 1.20        | 1.36        |  |
| 13    | CoN 17071   | 0.99        | --    | --           | 1.26        | --      | 1.16        | 0.92        | 1.00        | 0.94        | 1.08          | 1.54         | 1.14        | 1.27        | --     | 1.35        |             | 0.91        | 1.13        |  |
| 14    | CoN 17072   | 1.84        | --    | --           | 2.51        | --      | 1.05        | 1.57        | 1.04        | 1.42        | 1.44          | 1.40         | 1.58        | 1.42        | --     | 1.98        |             | 1.34        | 1.55        |  |
| 15    | MS 17081    | 1.51        | --    | --           | 2.21        | --      | 1.88        | 1.8         | 1.08        | 1.51        | 1.46          | 1.55         | 1.53        | 1.75        | --     | 1.87        |             | 1.39        | 1.63        |  |
| 16    | MS 17082    | 1.42        | --    | --           | 1.90        | --      | 2.13        | 1.38        | 1.17        | 1.33        | 1.46          | 1.62         | 1.61        | 1.41        | --     | 1.95        |             | 1.01        | 1.53        |  |
| 17    | CoVSI 17121 | 1.47        | --    | --           | 1.78        | --      | 1.61        | 1.31        | 1.07        | 1.46        | 1.13          | 1.49         | 1.38        | 1.44        | --     | 1.87        |             | 1.17        | 1.43        |  |
| 18    | CoT 17366   | 1.31        | --    | --           | 1.81        | --      | 1.94        | 1.38        | 1.06        | 1.38        | 1.40          | 1.31         | 1.38        | 1.45        | --     | 1.54        |             | 1.17        | 1.43        |  |
|       | <b>Stds</b> |             |       |              |             |         |             |             |             |             |               |              |             |             |        |             |             |             |             |  |
| 1     | Co 86032    | 1.67        | --    | --           | 1.46        | --      | 1.65        | 1.49        | 0.91        | 1.39        | 1.34          | 1.33         | 1.41        | 1.11        | --     | 2.18        |             | 1.11        | 1.42        |  |
| 2     | CoC 671     | 1.68        | --    | --           | 1.61        | --      | 1.63        | 1.35        | 1.07        | 1.23        | 1.21          | 1.10         | 1.44        | 1.40        | --     | 1.29        |             | 1.03        | 1.34        |  |
| 3     | Co 09004    | 1.24        | --    | --           | 2.07        | --      | 1.94        | 1.23        | 1.02        | 1.12        | 1.38          | 1.25         | 1.33        | 1.14        | --     | 1.76        |             | 1.15        | 1.39        |  |
|       | <b>Mean</b> | <b>1.48</b> | --    | --           | <b>1.73</b> | --      | <b>1.61</b> | <b>1.31</b> | <b>1.08</b> | <b>1.38</b> | <b>1.34</b>   | <b>1.40</b>  | <b>1.42</b> | <b>1.41</b> | --     | <b>1.74</b> |             | <b>1.16</b> | <b>1.42</b> |  |
|       | SE(m)       | 0.11        | --    | --           | 0.16        | --      | 0.15        | 0.08        | 0.03        | 0.11        | 0.03          | 0.03         | 0.09        | 0.03        | --     | 0.10        |             | 0.05        |             |  |
|       | CD          | 0.30        | --    | --           | 0.46        | --      | 0.45        | 0.23        | 0.08        | 0.32        | 0.09          | 0.10         | 0.28        | 0.09        | --     | 0.29        |             | 0.15        |             |  |
|       | CV          | 12.30       | --    | --           | 16.01       | --      | 13.32       | 10.71       | 4.29        | 13.86       | 4.02          | 4.66         | 12.02       | 3.80        | --     | 10.51       |             | 8.04        |             |  |



Table 2.5.25 Stalk Length (cm) at 240 days

| S.No. | Entries     | Coimbatore    | Akola         | Basmathnagar | Belgaum       | Kawarda | Kolhapur | Man-dya       | Navsari       | Padegaon      | Permallapalle | Pravaranagar  | Pugalur       | Pune          | Rudrur | Sameerwadi    | Sanke-shwar   | Thiruvalla | Mean          |  |
|-------|-------------|---------------|---------------|--------------|---------------|---------|----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|---------------|---------------|------------|---------------|--|
| 1     | Co 17001    | 213.33        | 189.30        | --           | 212.33        | --      | --       | 193.33        | 183.33        | 172.33        | 248.33        | 205.33        | 256.52        | 166.78        | --     | 242.00        | 178.50        | --         | 205.12        |  |
| 2     | Co 17002    | 213.33        | 185.30        | --           | 226.17        | --      | --       | 204.00        | 213.67        | 184.67        | 245.00        | 207.66        | 283.83        | 193.33        | --     | 252.66        | 187.30        | --         | 216.41        |  |
| 3     | Co 17003    | 171.67        | 169.00        | --           | 223.33        | --      | --       | 190.67        | 223.33        | 179.67        | 241.67        | 184.00        | 224.73        | 156.00        | --     | 230.66        | 131.15        | --         | 193.82        |  |
| 4     | Co 17004    | 220.00        | 188.30        | --           | 225.17        | --      | --       | 208.00        | 215.00        | 159.67        | 285.00        | 171.00        | 258.35        | 168.11        | --     | 241.00        | 188.50        | --         | 210.67        |  |
| 5     | Co 17005    | 215.00        | 234.30        | --           | 214.33        | --      | --       | 213.33        | 198.33        | 201.00        | 270.33        | 200.66        | 265.25        | 200.22        | --     | 265.66        | 223.00        | --         | 225.12        |  |
| 6     | Co 17006    | 191.67        | 208.30        | --           | 193.00        | --      | --       | 166.00        | 188.33        | 158.33        | 220.67        | 213.33        | 261.22        | 136.11        | --     | 242.66        | 175.00        | --         | 196.22        |  |
| 7     | Co 17008    | 171.67        | 198.30        | --           | 139.67        | --      | --       | 160.67        | 208.33        | 155.33        | 176.00        | 165.33        | 184.20        | 107.56        | --     | 194.66        | 111.00        | --         | 164.39        |  |
| 8     | Co 17010    | 198.33        | 213.70        | --           | 261.50        | --      | --       | 211.33        | 206.67        | 177.67        | 244.67        | 208.00        | 270.82        | 171.78        | --     | 248.00        | 192.15        | --         | 217.05        |  |
| 9     | Co 17012    | 218.33        | 215.30        | --           | 221.17        | --      | --       | 194.67        | 221.67        | 183.33        | 283.67        | 204.00        | 276.08        | 167.22        | --     | 276.66        | 168.00        | --         | 219.17        |  |
| 10    | Co 17013    | 220.00        | 221.70        | --           | 204.83        | --      | --       | 204.67        | 205.00        | 214.00        | 228.00        | 182.33        | 244.83        | 155.33        | --     | 226.00        | 169.50        | --         | 206.35        |  |
| 11    | Co 17014    | 198.33        | 205.70        | --           | 261.50        | --      | --       | 193.33        | 196.67        | 178.67        | 245.33        | 214.00        | 221.73        | 154.33        | --     | 215.00        | 155.30        | --         | 203.32        |  |
| 12    | CoVC 17061  | 218.33        | 239.00        | --           | 231.83        | --      | --       | 204.67        | 206.33        | 196.33        | 264.67        | 205.00        | 276.50        | 180.44        | --     | 222.00        | 202.65        | --         | 220.65        |  |
| 13    | CoN 17071   | 190.00        | 195.70        | --           | 216.33        | --      | --       | 166.00        | 200.00        | 175.00        | 231.67        | 193.33        | 224.93        | 133.44        | --     | 234.66        | 165.00        | --         | 193.84        |  |
| 14    | CoN 17072   | 185.00        | 222.30        | --           | 206.50        | --      | --       | 183.33        | 220.00        | 164.33        | 235.33        | 185.33        | 216.87        | 123.11        | --     | 200.66        | 136.00        | --         | 189.90        |  |
| 15    | MS 17081    | 188.33        | 209.00        | --           | 243.83        | --      | --       | 184.67        | 213.33        | 195.33        | 255.00        | 207.00        | 239.13        | 188.67        | --     | 223.00        | 206.35        | --         | 212.80        |  |
| 16    | MS 17082    | 176.67        | 189.00        | --           | 225.83        | --      | --       | 185.33        | 231.67        | 175.33        | 257.00        | 205.33        | 242.38        | 164.78        | --     | 242.00        | 178.00        | --         | 206.11        |  |
| 17    | CoVSI 17121 | 178.33        | 205.70        | --           | 206.83        | --      | --       | 176.00        | 230.00        | 179.00        | 225.00        | 179.33        | 217.77        | 144.00        | --     | 230.00        | 174.50        | --         | 195.54        |  |
| 18    | CoT 17366   | 211.67        | 242.30        | --           | 240.67        | --      | --       | 194.00        | 215.00        | 190.67        | 225.00        | 185.00        | 235.18        | 150.78        | --     | 234.00        | 171.85        | --         | 208.01        |  |
|       | <b>Stds</b> |               |               |              |               |         |          |               |               |               |               |               |               |               |        |               |               |            |               |  |
| 1     | Co 86032    | 215.00        | 210.70        | --           | 212.00        | --      | --       | 196.00        | 190.00        | 186.67        | 251.67        | 185.33        | 251.93        | 133.11        | --     | 246.66        | 184.35        | --         | 205.28        |  |
| 2     | CoC 671     | 210.00        | 199.00        | --           | 226.67        | --      | --       | 186.67        | 193.33        | 199.00        | 238.00        | 168.33        | 234.13        | 146.33        | --     | 256.00        | 167.50        | --         | 202.08        |  |
| 3     | Co 09004    | 208.33        | --            | --           | 229.00        | --      | --       | 210.00        | 221.67        | 181.67        | 292.67        | 178.33        | 247.80        | 159.33        | --     | 268.00        | 192.30        | --         | 217.19        |  |
|       | <b>Mean</b> | <b>200.63</b> | <b>208.03</b> | --           | <b>210.10</b> | --      | --       | <b>191.75</b> | <b>208.65</b> | <b>181.33</b> | <b>245.94</b> | <b>193.76</b> | <b>244.49</b> | <b>157.18</b> | --     | <b>256.89</b> | <b>174.19</b> | --         | <b>206.08</b> |  |
|       | SE(m)       | 9.10          | 5.07          | --           | 8.01          | --      | --       | 5.81          | 7.08          | 13.53         | 11.56         | 4.04          | 11.57         | 6.74          | --     | 7.23          | 14.13         | --         |               |  |
|       | CD          | 16.11         | 14.52         | --           | 22.90         | --      | --       | 16.62         | 20.22         | 38.66         | 33.03         | 11.56         | 33.07         | 19.26         | --     | 20.76         | 41.68         | --         |               |  |
|       | CV          | 7.86          | 4.24          | --           | 6.60          | --      | --       | 5.25          | 5.87          | NS            | 8.14          | 3.63          | 8.20          | 7.43          | --     | 5.27          | 11.47         | --         |               |  |

**Table 2.5.2.6 Stalk Diameter (cm) at 240 days**

| S.No. | Entries     | Coimbatore  | Akola       | Basmath nagar | Belgaum     | Kawarda | Kolhapur | Man dya     | Navsari     | Padegaon    | Permallapalle | Pravaranaagar | Pugalur     | Pune        | Rudrur | Sameerwadi  | Sanke shwar | Thiruvalla | Mean        |  |
|-------|-------------|-------------|-------------|---------------|-------------|---------|----------|-------------|-------------|-------------|---------------|---------------|-------------|-------------|--------|-------------|-------------|------------|-------------|--|
| 1     | Co 17001    | 3.21        | 1.99        | --            | 2.72        | --      | --       | 2.63        | 2.22        | 2.27        | 2.27          | 2.42          | 2.67        | 3.39        | --     | 2.56        | 2.92        | --         | 2.61        |  |
| 2     | Co 17002    | 3.02        | 2.06        | --            | 2.70        | --      | --       | 2.64        | 2.29        | 2.10        | 2.20          | 2.43          | 2.78        | 3.15        | --     | 2.71        | 3.06        | --         | 2.60        |  |
| 3     | Co 17003    | 3.00        | 1.80        | --            | 2.75        | --      | --       | 2.45        | 2.33        | 2.20        | 2.53          | 2.37          | 2.72        | 3.11        | --     | 2.61        | 2.89        | --         | 2.56        |  |
| 4     | Co 17004    | 3.54        | 2.07        | --            | 2.78        | --      | --       | 2.73        | 2.38        | 2.63        | 2.97          | 2.46          | 3.11        | 3.27        | --     | 2.73        | 3.10        | --         | 2.81        |  |
| 5     | Co 17005    | 2.96        | 2.29        | --            | 2.90        | --      | --       | 2.55        | 2.20        | 2.21        | 2.73          | 2.51          | 2.58        | 3.04        | --     | 2.68        | 2.79        | --         | 2.62        |  |
| 6     | Co 17006    | 3.01        | 2.02        | --            | 2.53        | --      | --       | 2.64        | 2.32        | 2.50        | 2.83          | 2.36          | 2.37        | 3.08        | --     | 2.58        | 2.95        | --         | 2.60        |  |
| 7     | Co 17008    | 3.33        | 2.07        | --            | 3.30        | --      | --       | 3.01        | 2.23        | 2.84        | 2.77          | 2.43          | 3.25        | 3.80        | --     | 3.53        | 3.95        | --         | 3.74        |  |
| 8     | Co 17010    | 2.76        | 1.96        | --            | 2.38        | --      | --       | 2.55        | 2.37        | 2.46        | 2.10          | 2.32          | 2.80        | 3.09        | --     | 2.52        | 2.83        | --         | 2.51        |  |
| 9     | Co 17012    | 2.76        | 2.19        | --            | 2.57        | --      | --       | 2.63        | 2.32        | 2.45        | 2.23          | 2.22          | 2.61        | 3.09        | --     | 2.65        | 2.86        | --         | 2.55        |  |
| 10    | Co 17013    | 3.12        | 2.33        | --            | 2.77        | --      | --       | 2.76        | 2.36        | 2.45        | 2.43          | 2.39          | 3.03        | 3.31        | --     | 2.81        | 3.03        | --         | 2.73        |  |
| 11    | Co 17014    | 3.31        | 2.22        | --            | 2.65        | --      | --       | 2.73        | 2.38        | 2.54        | 2.77          | 2.49          | 3.10        | 3.48        | --     | 3.40        | 3.25        | --         | 2.86        |  |
| 12    | CoVC 17061  | 2.72        | 2.16        | --            | 2.72        | --      | --       | 2.65        | 2.30        | 2.25        | 2.43          | 2.46          | 2.77        | 3.23        | --     | 2.41        | 2.86        | --         | 2.58        |  |
| 13    | CoN 17071   | 2.58        | 2.12        | --            | 2.25        | --      | --       | 2.49        | 2.30        | 2.10        | 2.43          | 2.25          | 2.37        | 2.92        | --     | 2.23        | 2.69        | --         | 2.39        |  |
| 14    | CoN 17072   | 3.82        | 2.24        | --            | 3.88        | --      | --       | 3.04        | 2.34        | 2.50        | 2.50          | 2.42          | 3.36        | 3.79        | --     | 2.98        | 3.60        | --         | 3.04        |  |
| 15    | MS 17081    | 2.96        | 2.19        | --            | 3.13        | --      | --       | 3.16        | 2.43        | 2.49        | 2.53          | 2.47          | 2.80        | 3.35        | --     | 2.80        | 3.24        | --         | 2.80        |  |
| 16    | MS 17082    | 2.84        | 2.04        | --            | 2.95        | --      | --       | 3.01        | 2.46        | 2.51        | 2.83          | 2.43          | 2.90        | 3.29        | --     | 3.04        | 3.29        | --         | 2.80        |  |
| 17    | CoVSI 17121 | 3.17        | 1.89        | --            | 2.68        | --      | --       | 2.65        | 2.27        | 2.53        | 2.50          | 2.28          | 2.94        | 3.22        | --     | 3.03        | 3.22        | --         | 2.70        |  |
| 18    | CoT 17366   | 3.00        | 2.04        | --            | 2.90        | --      | --       | 2.86        | 2.38        | 2.61        | 2.53          | 2.36          | 2.97        | 3.14        | --     | 2.89        | 2.82        | --         | 2.71        |  |
|       | <b>Stds</b> |             |             |               |             |         |          |             |             |             |               |               |             |             |        |             |             |            |             |  |
| 1     | Co 86032    | 2.86        | 1.87        | --            | 2.62        | --      | --       | 2.68        | 2.28        | 2.46        | 2.13          | 2.40          | 2.53        | 3.11        | --     | 2.89        | 2.89        | --         | 2.56        |  |
| 2     | CoC 671     | 2.94        | 2.29        | --            | 2.60        | --      | --       | 2.96        | 2.48        | 2.18        | 2.27          | 2.35          | 2.93        | 3.30        | --     | 2.34        | 3.13        | --         | 2.65        |  |
| 3     | Co 09004    | 2.57        | --          | --            | 2.63        | --      | --       | 2.57        | 2.37        | 2.06        | 2.73          | 2.15          | 2.45        | 3.03        | --     | 2.47        | 2.83        | --         | 2.53        |  |
|       | <b>Mean</b> | <b>2.79</b> | <b>2.10</b> | --            | <b>2.78</b> | --      | --       | <b>2.73</b> | <b>2.33</b> | <b>2.40</b> | <b>2.51</b>   | <b>2.37</b>   | <b>2.81</b> | <b>3.25</b> | --     | <b>2.57</b> | <b>3.05</b> | --         | <b>2.81</b> |  |
|       | SE(m)       | 0.15        | 0.07        | --            | 0.11        | --      | --       | 0.11        | 0.02        | 0.16        | 0.08          | 0.01          | 0.12        | 0.08        | --     | 0.11        | 0.1         | --         |             |  |
|       | CD          | 0.42        | 0.19        | --            | 0.32        | --      | --       | 0.31        | 0.07        | 0.46        | 0.23          | 0.05          | 0.35        | 0.22        | --     | 0.32        | 0.29        | --         |             |  |
|       | CV          | 8.20        | 5.50        | --            | 6.95        | --      | --       | 6.84        | 1.77        | NS          | 5.47          | 1.43          | 7.56        | 4.03        | --     | 7.02        | 4.50        | --         |             |  |

Table 2.5.27 Single cane weight (kg) at 240 days

| S.No. | Entries     | Coimbatore  | Akola       | Basmathnagar | Belgaum     | Kawarda | Kolhapur | Mandya      | Navsari     | Padegaon    | Permallapalle | Pravarannagar | Pugalur     | Pune        | Rudrur | Sameerwadi  | Sanke shwar | Thiruvalla | Mean        |  |
|-------|-------------|-------------|-------------|--------------|-------------|---------|----------|-------------|-------------|-------------|---------------|---------------|-------------|-------------|--------|-------------|-------------|------------|-------------|--|
| 1     | Co 17001    | 1.45        | 0.47        | --           | 1.37        | --      | --       | 1.21        | 0.99        | 1.18        | 1.26          | 1.05          | 1.66        | 1.34        | --     | 1.45        | 1.30        | --         | 1.23        |  |
| 2     | Co 17002    | 1.32        | 0.43        | --           | 1.46        | --      | --       | 1.09        | 1.10        | 1.17        | 1.33          | 1.23          | 1.74        | 1.35        | --     | 1.55        | 1.47        | --         | 1.27        |  |
| 3     | Co 17003    | 1.13        | 0.41        | --           | 1.46        | --      | --       | 0.87        | 1.11        | 0.96        | 1.32          | 1.13          | 1.24        | 1.08        | --     | 1.36        | 0.95        | --         | 1.08        |  |
| 4     | Co 17004    | 1.52        | 0.43        | --           | 1.57        | --      | --       | 1.31        | 1.13        | 1.46        | 1.40          | 1.22          | 1.68        | 1.35        | --     | 1.62        | 1.55        | --         | 1.35        |  |
| 5     | Co 17005    | 1.37        | 0.81        | --           | 1.55        | --      | --       | 1.17        | 0.98        | 1.24        | 1.12          | 1.29          | 1.27        | 1.33        | --     | 1.48        | 1.52        | --         | 1.26        |  |
| 6     | Co 17006    | 1.23        | 0.71        | --           | 1.25        | --      | --       | 1.02        | 0.97        | 1.13        | 1.09          | 1.24          | 1.22        | 0.99        | --     | 1.55        | 1.32        | --         | 1.14        |  |
| 7     | Co 17008    | 1.53        | 0.67        | --           | 1.34        | --      | --       | 1.20        | 1.04        | 1.59        | 1.43          | 1.22          | 1.43        | 1.05        | --     | 1.41        | 1.36        | --         | 1.27        |  |
| 8     | Co 17010    | 1.12        | 0.60        | --           | 1.37        | --      | --       | 1.18        | 1.11        | 1.21        | 1.13          | 1.26          | 1.54        | 1.33        | --     | 1.45        | 1.35        | --         | 1.22        |  |
| 9     | Co 17012    | 1.53        | 0.75        | --           | 1.43        | --      | --       | 1.04        | 1.08        | 1.40        | 1.35          | 1.05          | 1.52        | 1.18        | --     | 1.72        | 1.16        | --         | 1.27        |  |
| 10    | Co 17013    | 1.51        | 0.71        | --           | 1.28        | --      | --       | 1.34        | 1.22        | 1.32        | 1.27          | 0.96          | 1.51        | 1.17        | --     | 1.61        | 1.22        | --         | 1.26        |  |
| 11    | Co 17014    | 1.47        | 0.76        | --           | 1.52        | --      | --       | 1.27        | 0.92        | 1.45        | 1.27          | 1.26          | 1.36        | 1.36        | --     | 1.57        | 1.38        | --         | 1.30        |  |
| 12    | CoVC 17061  | 1.17        | 0.74        | --           | 1.42        | --      | --       | 1.11        | 1.12        | 1.06        | 1.25          | 0.98          | 1.50        | 1.30        | --     | 1.45        | 1.41        | --         | 1.21        |  |
| 13    | CoN 17071   | 0.92        | 0.67        | --           | 1.04        | --      | --       | 0.80        | 0.94        | 0.82        | 1.09          | 1.19          | 1.08        | 0.80        | --     | 1.23        | 1.04        | --         | 0.97        |  |
| 14    | CoN 17072   | 1.83        | 0.64        | --           | 2.34        | --      | --       | 1.17        | 1.00        | 1.43        | 1.36          | 1.15          | 1.55        | 1.27        | --     | 2.09        | 1.42        | --         | 1.44        |  |
| 15    | MS 17081    | 1.25        | 0.74        | --           | 2.03        | --      | --       | 1.49        | 1.04        | 1.88        | 1.39          | 1.38          | 1.51        | 1.65        | --     | 1.97        | 1.68        | --         | 1.50        |  |
| 16    | MS 17082    | 1.12        | 0.67        | --           | 1.73        | --      | --       | 1.29        | 1.05        | 1.49        | 1.31          | 1.37          | 1.54        | 1.26        | --     | 1.52        | 1.58        | --         | 1.33        |  |
| 17    | CoVSI 17121 | 1.20        | 0.71        | --           | 1.40        | --      | --       | 1.17        | 1.02        | 1.25        | 1.05          | 1.23          | 1.44        | 1.10        | --     | 1.32        | 1.52        | --         | 1.20        |  |
| 18    | CoT 17366   | 1.18        | 0.76        | --           | 1.63        | --      | --       | 1.25        | 0.99        | 1.19        | 1.30          | 1.15          | 1.52        | 1.24        | --     | 1.49        | 1.20        | --         | 1.24        |  |
|       | <b>Stds</b> |             |             |              |             |         |          |             |             |             |               |               |             |             |        |             |             |            |             |  |
| 1     | Co 86032    | 1.28        | 0.69        | --           | 1.28        | --      | --       | 1.21        | 0.88        | 1.35        | 1.24          | 1.07          | 1.34        | 1.04        | --     | 1.48        | 1.25        | --         | 1.18        |  |
| 2     | CoC 671     | 1.33        | 0.65        | --           | 1.44        | --      | --       | 1.30        | 0.99        | 1.17        | 1.10          | 0.97          | 1.39        | 1.22        | --     | 1.07        | 1.46        | --         | 1.17        |  |
| 3     | Co 09004    | 1.15        | --          | --           | 1.46        | --      | --       | 1.17        | 0.97        | 1.11        | 1.28          | 1.05          | 1.17        | 1.13        | --     | 1.16        | 1.31        | --         | 1.18        |  |
|       | <b>Mean</b> | <b>1.32</b> | <b>0.66</b> | --           | <b>1.49</b> | --      | --       | <b>1.17</b> | <b>1.03</b> | <b>1.28</b> | <b>1.25</b>   | <b>1.16</b>   | <b>1.44</b> | <b>1.22</b> | --     | <b>1.24</b> | <b>1.35</b> | --         | <b>1.22</b> |  |
|       | SE(m)       | 0.08        | 0.04        | --           | 0.13        | --      | --       | 0.08        | 0.03        | 0.11        | 0.06          | 0.03          | 0.09        | 0.06        | --     | 0.12        | 0.17        | --         |             |  |
|       | CD          | 0.22        | 0.11        | --           | 0.38        | --      | --       | 0.22        | 0.08        | 0.31        | 0.16          | 0.10          | 0.28        | 0.17        | --     | 0.35        | 0.49        | --         |             |  |
|       | CV          | 10.25       | 9.86        | --           | 15.36       | --      | --       | 11.11       | 4.47        | 14.62       | 7.75          | 5.29          | 11.93       | 8.25        | --     | 14.30       | 17.39       | --         |             |  |

Table 2.5.28 CCS % at 240 days

| S.No. | Entries     | Coimbatore   | Akola | Basmath nagar | Belgaum     | Kawardda | Kolhapur | Man-dya      | Navsari     | Padegaon    | Permallapalle | Pravaranaagar | Pugajur     | Pune        | Rudrur      | Sameerwadi   | Sanke shwar | Thiruvalla | Mean        |  |
|-------|-------------|--------------|-------|---------------|-------------|----------|----------|--------------|-------------|-------------|---------------|---------------|-------------|-------------|-------------|--------------|-------------|------------|-------------|--|
| 1     | Co 17001    | 11.44        | --    | --            | 8.10        | --       | --       | 12.31        | 8.82        | 8.12        | 10.82         | 11.25         | 9.65        | 9.08        | 11.04       | 10.37        | 9.78        | --         | 10.06       |  |
| 2     | Co 17002    | 10.13        | --    | --            | 7.33        | --       | --       | 11.59        | 7.82        | 7.00        | 9.55          | 12.26         | 8.88        | 9.01        | 8.10        | 9.83         | 9.38        | --         | 9.24        |  |
| 3     | Co 17003    | 10.94        | --    | --            | 6.78        | --       | --       | 12.24        | 7.68        | 7.02        | 9.96          | 13.06         | 10.43       | 8.50        | 10.72       | 10.47        | 10.58       | --         | 9.86        |  |
| 4     | Co 17004    | 9.08         | --    | --            | 7.22        | --       | --       | 11.46        | 7.57        | 6.75        | 7.68          | 11.85         | 7.91        | 7.92        | 7.24        | 8.33         | 8.66        | --         | 8.47        |  |
| 5     | Co 17005    | 10.66        | --    | --            | 5.29        | --       | --       | 10.53        | 7.26        | 7.56        | 8.67          | 11.49         | 10.74       | 8.72        | 6.98        | 8.08         | 7.97        | --         | 8.66        |  |
| 6     | Co 17006    | 11.15        | --    | --            | 9.97        | --       | --       | 12.30        | 6.97        | 8.67        | 10.28         | 11.68         | 11.10       | 9.41        | 10.23       | 9.71         | 9.27        | --         | 10.06       |  |
| 7     | Co 17008    | 10.40        | --    | --            | 7.95        | --       | --       | 11.23        | 6.69        | 8.40        | 9.87          | 12.08         | 8.89        | 7.43        | 8.60        | 7.71         | 7.68        | --         | 8.91        |  |
| 8     | Co 17010    | 11.28        | --    | --            | 11.26       | --       | --       | 12.53        | 7.89        | 8.85        | 9.90          | 12.00         | 9.34        | 9.19        | 8.55        | 10.91        | 11.20       | --         | 10.24       |  |
| 9     | Co 17012    | 10.23        | --    | --            | 6.75        | --       | --       | 10.04        | 7.20        | 6.63        | 8.03          | 11.83         | 9.16        | 6.71        | 7.01        | 8.37         | 7.55        | --         | 8.29        |  |
| 10    | Co 17013    | 9.67         | --    | --            | 7.44        | --       | --       | 11.84        | 8.05        | 7.24        | 8.77          | 12.13         | 9.40        | 7.44        | 7.44        | 8.83         | 7.91        | --         | 8.85        |  |
| 11    | Co 17014    | 9.35         | --    | --            | 6.30        | --       | --       | 11.55        | 7.96        | 9.12        | 8.70          | 11.47         | 8.71        | 9.44        | 8.78        | 10.33        | 10.42       | --         | 9.34        |  |
| 12    | CoVC 17061  | 10.17        | --    | --            | 5.93        | --       | --       | 11.26        | 7.61        | 6.17        | 8.73          | 11.83         | 9.91        | 8.50        | 6.94        | 7.41         | 6.62        | --         | 8.42        |  |
| 13    | CoN 17071   | 9.57         | --    | --            | 5.25        | --       | --       | 9.80         | 6.46        | 5.41        | 8.45          | 12.24         | 8.78        | 6.36        | 6.08        | 8.12         | 5.69        | --         | 7.68        |  |
| 14    | CoN 17072   | 8.23         | --    | --            | 5.75        | --       | --       | 8.52         | 6.69        | 5.53        | 8.45          | 12.64         | 7.54        | 6.40        | 6.38        | 7.03         | 7.88        | --         | 7.59        |  |
| 15    | MS 17081    | 7.81         | --    | --            | 7.05        | --       | --       | 10.27        | 8.65        | 5.73        | 8.10          | 12.32         | 6.65        | 6.87        | 8.08        | 6.81         | 6.94        | --         | 7.94        |  |
| 16    | MS 17082    | 8.75         | --    | --            | 6.10        | --       | --       | 10.42        | 6.28        | 5.27        | 9.15          | 12.77         | 6.57        | 8.24        | 7.94        | 7.38         | 7.90        | --         | 8.06        |  |
| 17    | CoVSI 17121 | 8.41         | --    | --            | 7.10        | --       | --       | 10.77        | 6.22        | 6.58        | 7.97          | 12.78         | 6.98        | 6.35        | 6.58        | 7.52         | 6.04        | --         | 7.78        |  |
| 18    | CoT 17366   | 9.83         | --    | --            | 7.89        | --       | --       | 11.53        | 6.63        | 7.13        | 9.49          | 10.91         | 8.92        | 6.82        | 6.33        | 6.87         | 8.30        | --         | 8.39        |  |
|       | <b>Stds</b> |              |       |               |             |          |          |              |             |             |               |               |             |             |             |              |             |            |             |  |
| 1     | Co 86032    | 10.21        | --    | --            | 6.62        | --       | --       | 11.85        | 8.33        | 8.03        | 10.38         | 11.70         | 10.56       | 9.94        | 6.00        | 10.21        | 10.38       | --         | 9.52        |  |
| 2     | CoC 671     | 12.62        | --    | --            | 6.49        | --       | --       | 12.49        | 8.42        | 8.45        | 10.86         | 12.76         | 9.98        | 11.03       | 8.16        | 11.37        | 10.38       | --         | 10.25       |  |
| 3     | Co 09004    | 11.23        | --    | --            | 9.33        | --       | --       | 12.97        | 7.53        | 10.86       | 9.35          | 12.29         | 10.37       | 10.92       | 9.58        | 13.37        | 11.64       | --         | 10.79       |  |
|       | <b>Mean</b> | <b>10.05</b> | --    | --            | <b>7.23</b> | --       | --       | <b>11.31</b> | <b>7.46</b> | <b>7.36</b> | <b>9.20</b>   | <b>12.06</b>  | <b>9.07</b> | <b>8.30</b> | <b>7.94</b> | <b>11.65</b> | <b>8.68</b> | --         | <b>9.19</b> |  |
|       | SE(m)       | 0.50         | --    | --            | 0.55        | --       | --       | 0.40         | 0.14        | 0.57        | 0.24          | 0.91          | 0.13        | 0.22        | 0.05        | 0.36         | 0.79        | --         |             |  |
|       | CD          | 1.44         | --    | --            | 1.59        | --       | --       | 1.15         | 0.41        | 1.62        | 0.67          | 2.62          | 0.37        | 0.63        | 0.14        | 1.04         | 2.33        | --         |             |  |
|       | CV          | 8.65         | --    | --            | 13.28       | --       | --       | 6.15         | 3.32        | 13.33       | 4.43          | 3.16          | 2.46        | 4.61        | 1.06        | 6.97         | 12.88       | --         |             |  |

Table 2.5.29 Sucrose % at 240 days

| S.No. | Entries     | Coimbatore   | Akola | Basmathnagar | Belgaum      | Kawarda | Kolhapur | Mandya       | Navsari      | Padgaon      | Permallapalle | Pravaranagar | Pugalur      | Pune         | Rudur        | Sameerwadi   | Sanke shwar  | Thiruvalla | Mean         |  |
|-------|-------------|--------------|-------|--------------|--------------|---------|----------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|--|
| 1     | Co 17001    | 16.44        | --    | --           | 11.91        | --      | --       | 17.41        | 12.90        | 12.38        | 15.79         | 16.35        | 13.99        | 13.22        | 16.01        | 15.00        | 14.14        | --         | 14.63        |  |
| 2     | Co 17002    | 14.86        | --    | --           | 10.91        | --      | --       | 16.45        | 11.53        | 10.93        | 13.92         | 17.12        | 13.29        | 13.17        | 12.29        | 14.62        | 13.61        | --         | 13.56        |  |
| 3     | Co 17003    | 15.89        | --    | --           | 10.30        | --      | --       | 17.22        | 11.37        | 11.00        | 14.54         | 18.05        | 15.39        | 12.48        | 15.55        | 15.42        | 15.15        | --         | 14.36        |  |
| 4     | Co 17004    | 13.68        | --    | --           | 11.02        | --      | --       | 16.16        | 11.17        | 10.90        | 11.25         | 16.75        | 11.90        | 11.97        | 11.30        | 12.64        | 12.91        | --         | 12.64        |  |
| 5     | Co 17005    | 15.44        | --    | --           | 8.52         | --      | --       | 14.92        | 10.80        | 11.40        | 12.70         | 16.06        | 15.63        | 12.52        | 10.86        | 12.09        | 11.87        | --         | 12.73        |  |
| 6     | Co 17006    | 16.20        | --    | --           | 14.32        | --      | --       | 17.3         | 10.40        | 13.05        | 15.01         | 16.17        | 16.19        | 13.75        | 15.35        | 14.25        | 13.86        | --         | 14.65        |  |
| 7     | Co 17008    | 15.17        | --    | --           | 11.94        | --      | --       | 15.8         | 10.00        | 12.55        | 14.47         | 16.95        | 13.10        | 11.02        | 12.78        | 11.72        | 11.59        | --         | 13.09        |  |
| 8     | Co 17010    | 15.73        | --    | --           | 15.95        | --      | --       | 17.73        | 11.67        | 13.16        | 14.45         | 16.80        | 13.91        | 13.37        | 12.98        | 15.90        | 15.90        | --         | 14.80        |  |
| 9     | Co 17012    | 14.88        | --    | --           | 10.32        | --      | --       | 14.32        | 10.70        | 10.14        | 11.72         | 17.06        | 13.44        | 10.35        | 11.07        | 12.48        | 11.18        | --         | 12.30        |  |
| 10    | Co 17013    | 14.19        | --    | --           | 11.09        | --      | --       | 16.65        | 11.86        | 11.18        | 12.83         | 16.76        | 13.92        | 11.06        | 11.55        | 13.23        | 11.60        | --         | 12.99        |  |
| 11    | Co 17014    | 13.74        | --    | --           | 9.64         | --      | --       | 16.41        | 11.73        | 13.39        | 12.78         | 16.48        | 12.84        | 13.54        | 13.22        | 15.13        | 14.85        | --         | 13.65        |  |
| 12    | CoVC 17061  | 14.83        | --    | --           | 9.15         | --      | --       | 15.82        | 11.28        | 9.92         | 12.81         | 17.00        | 14.47        | 12.37        | 11.07        | 11.44        | 10.26        | --         | 12.53        |  |
| 13    | CoN 17071   | 14.16        | --    | --           | 8.27         | --      | --       | 14.08        | 9.68         | 8.77         | 12.38         | 17.47        | 13.09        | 9.70         | 9.88         | 12.41        | 9.00         | --         | 11.57        |  |
| 14    | CoN 17072   | 12.43        | --    | --           | 8.88         | --      | --       | 12.44        | 9.90         | 9.05         | 12.34         | 17.91        | 11.30        | 9.87         | 9.90         | 11.00        | 11.50        | --         | 11.38        |  |
| 15    | MS 17081    | 11.78        | --    | --           | 10.58        | --      | --       | 14.7         | 12.67        | 9.34         | 11.87         | 17.05        | 10.31        | 10.36        | 12.50        | 10.69        | 10.52        | --         | 11.86        |  |
| 16    | MS 17082    | 13.11        | --    | --           | 9.35         | --      | --       | 14.85        | 10.23        | 8.70         | 13.36         | 17.77        | 10.10        | 12.10        | 12.05        | 11.34        | 11.52        | --         | 12.04        |  |
| 17    | CoVSI 17121 | 12.60        | --    | --           | 10.59        | --      | --       | 15.18        | 9.30         | 10.19        | 11.68         | 18.10        | 10.73        | 9.65         | 10.37        | 11.41        | 8.86         | --         | 11.55        |  |
| 18    | CoT 17366   | 14.44        | --    | --           | 11.77        | --      | --       | 16.26        | 9.93         | 11.10        | 13.91         | 15.97        | 13.33        | 10.39        | 9.92         | 10.70        | 12.12        | --         | 12.49        |  |
|       | <b>Stds</b> |              |       |              |              |         |          |              |              |              |               |              |              |              |              |              |              |            |              |  |
| 1     | Co 86032    | 14.86        | --    | --           | 10.11        | --      | --       | 16.71        | 12.23        | 12.15        | 15.18         | 17.00        | 15.54        | 14.15        | 9.88         | 14.83        | 14.74        | --         | 13.95        |  |
| 2     | CoC 671     | 18.03        | --    | --           | 10.10        | --      | --       | 17.58        | 12.34        | 12.55        | 15.80         | 18.36        | 14.49        | 15.66        | 12.47        | 16.74        | 14.81        | --         | 14.91        |  |
| 3     | Co 09004    | 16.23        | --    | --           | 13.57        | --      | --       | 18.39        | 11.14        | 15.79        | 13.64         | 17.10        | 15.01        | 15.53        | 14.14        | 19.30        | 16.61        | --         | 15.54        |  |
|       | <b>Mean</b> | <b>14.70</b> | --    | --           | <b>10.87</b> | --      | --       | <b>16.02</b> | <b>11.09</b> | <b>11.32</b> | <b>13.45</b>  | <b>17.06</b> | <b>13.43</b> | <b>12.20</b> | <b>12.15</b> | <b>16.96</b> | <b>12.69</b> | --         | <b>13.49</b> |  |
|       | SE(m)       | 0.63         | --    | --           | 0.68         | --      | --       | 0.53         | 0.17         | 0.70         | 0.34          | 0.32         | 0.19         | 0.30         | 0.04         | 0.42         | 0.94         | --         |              |  |
|       | CD          | 1.81         | --    | --           | 1.95         | --      | --       | 1.51         | 0.49         | 1.99         | 0.98          | 0.91         | 0.53         | 0.85         | 0.11         | 1.20         | 2.76         | --         |              |  |
|       | CV          | 7.45         | --    | --           | 10.88        | --      | --       | 5.73         | 2.71         | 10.68        | 4.44          | 3.25         | 2.41         | 4.21         | 0.55         | 5.41         | 10.43        | --         |              |  |

**Table 2.5.30 Brix % at 240 days**

| S.No. | Entries     | Coimbatore   | Akola | Basmathnagar | Belgaum      | Kawarda | Kolhapur | Manadya      | Navsari      | Padgaon      | Permallapalle | Pravarannagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla | Mean         |  |
|-------|-------------|--------------|-------|--------------|--------------|---------|----------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|--|
| 1     | Co 17001    | 18.37        | --    | --           | 13.93        | --      | --       | 18.80        | 14.93        | 15.52        | 18.23         | 17.45         | 15.93        | 15.56        | 18.23        | 16.97        | 16.01        | --         | 16.66        |  |
| 2     | Co 17002    | 17.32        | --    | --           | 13.06        | --      | --       | 17.93        | 13.60        | 14.29        | 16.03         | 18.05         | 16.10        | 15.66        | 15.27        | 17.49        | 15.51        | --         | 15.86        |  |
| 3     | Co 17003    | 18.14        | --    | --           | 12.83        | --      | --       | 18.40        | 13.47        | 14.48        | 16.80         | 18.79         | 18.16        | 14.95        | 17.73        | 18.09        | 16.76        | --         | 16.55        |  |
| 4     | Co 17004    | 16.78        | --    | --           | 13.83        | --      | --       | 17.33        | 13.17        | 15.03        | 13.10         | 17.69         | 14.57        | 15.14        | 14.77        | 15.72        | 15.51        | --         | 15.22        |  |
| 5     | Co 17005    | 17.55        | --    | --           | 11.69        | --      | --       | 16.20        | 12.93        | 14.02        | 14.77         | 16.99         | 17.92        | 14.35        | 14.13        | 14.64        | 14.26        | --         | 14.95        |  |
| 6     | Co 17006    | 18.52        | --    | --           | 15.96        | --      | --       | 18.47        | 12.53        | 15.98        | 17.33         | 16.92         | 18.65        | 16.29        | 18.67        | 16.62        | 16.76        | --         | 16.89        |  |
| 7     | Co 17008    | 17.47        | --    | --           | 14.56        | --      | --       | 16.87        | 12.10        | 15.16        | 16.87         | 18.05         | 15.40        | 13.47        | 15.30        | 14.62        | 14.26        | --         | 15.34        |  |
| 8     | Co 17010    | 16.45        | --    | --           | 17.26        | --      | --       | 19.20        | 13.80        | 15.74        | 16.70         | 17.75         | 16.70        | 16.85        | 16.13        | 18.30        | 17.26        | --         | 16.85        |  |
| 9     | Co 17012    | 17.03        | --    | --           | 12.99        | --      | --       | 15.80        | 12.80        | 12.80        | 13.53         | 17.95         | 15.67        | 13.55        | 14.73        | 15.01        | 13.26        | --         | 14.59        |  |
| 10    | Co 17013    | 16.55        | --    | --           | 13.33        | --      | --       | 17.77        | 13.97        | 14.35        | 14.90         | 17.99         | 16.53        | 13.58        | 14.93        | 16.05        | 13.51        | --         | 15.29        |  |
| 11    | Co 17014    | 16.08        | --    | --           | 12.16        | --      | --       | 17.93        | 13.80        | 15.64        | 14.93         | 17.05         | 15.10        | 15.49        | 16.20        | 17.56        | 16.26        | --         | 15.68        |  |
| 12    | CoVC 17061  | 17.07        | --    | --           | 11.69        | --      | --       | 16.87        | 13.40        | 13.59        | 14.97         | 18.19         | 16.69        | 14.58        | 14.97        | 14.66        | 13.26        | --         | 14.99        |  |
| 13    | CoN 17071   | 16.79        | --    | --           | 10.96        | --      | --       | 15.73        | 11.77        | 12.18        | 14.43         | 18.82         | 15.77        | 12.47        | 13.73        | 15.63        | 12.01        | --         | 14.19        |  |
| 14    | CoN 17072   | 15.32        | --    | --           | 11.39        | --      | --       | 14.40        | 11.73        | 12.74        | 14.27         | 18.85         | 13.73        | 12.93        | 12.80        | 14.40        | 13.26        | --         | 13.82        |  |
| 15    | MS 17081    | 14.46        | --    | --           | 12.89        | --      | --       | 16.33        | 14.70        | 13.08        | 13.83         | 17.99         | 13.29        | 13.07        | 16.07        | 14.09        | 13.03        | --         | 14.40        |  |
| 16    | MS 17082    | 15.91        | --    | --           | 11.86        | --      | --       | 16.33        | 14.30        | 12.41        | 15.43         | 18.79         | 12.86        | 14.51        | 15.00        | 14.41        | 13.26        | --         | 14.59        |  |
| 17    | CoVSI 17121 | 15.33        | --    | --           | 12.76        | --      | --       | 16.27        | 11.23        | 13.13        | 13.60         | 19.22         | 13.67        | 12.34        | 13.73        | 14.16        | 10.30        | --         | 13.81        |  |
| 18    | CoT 17366   | 16.86        | --    | --           | 14.16        | --      | --       | 17.47        | 12.07        | 14.43        | 16.20         | 17.22         | 16.13        | 13.33        | 13.03        | 13.93        | 14.01        | --         | 14.90        |  |
|       | <b>Stds</b> |              |       |              |              |         |          |              |              |              |               |               |              |              |              |              |              |            |              |  |
| 1     | Co 86032    | 17.04        | --    | --           | 12.69        | --      | --       | 17.93        | 14.30        | 15.03        | 17.60         | 17.85         | 18.25        | 15.96        | 14.03        | 16.93        | 16.01        | --         | 16.14        |  |
| 2     | CoC 671     | 19.90        | --    | --           | 13.13        | --      | --       | 18.8         | 14.37        | 15.01        | 18.10         | 19.45         | 16.56        | 17.55        | 15.70        | 19.63        | 16.26        | --         | 17.04        |  |
| 3     | Co 09004    | 18.34        | --    | --           | 15.56        | --      | --       | 20           | 13.20        | 18.05        | 15.77         | 18.29         | 17.03        | 17.45        | 16.67        | 21.76        | 18.26        | --         | 17.53        |  |
|       | <b>Mean</b> | <b>17.01</b> | --    | --           | <b>13.27</b> | --      | --       | <b>17.37</b> | <b>13.25</b> | <b>14.41</b> | <b>15.59</b>  | <b>18.06</b>  | <b>15.94</b> | <b>14.72</b> | <b>15.33</b> | <b>19.44</b> | <b>14.71</b> | --         | <b>15.76</b> |  |
|       | SE(m)       | 0.60         | --    | --           | 0.60         | --      | --       | 0.53         | 0.15         | 0.55         | 0.41          | 0.24          | 0.21         | 0.29         | 0.14         | 0.33         | 0.80         | --         |              |  |
|       | CD          | 1.72         | --    | --           | 1.72         | --      | --       | 1.50         | 0.42         | 1.58         | 1.16          | 0.69          | 0.61         | 0.82         | 0.40         | 0.95         | 2.37         | --         |              |  |
|       | CV          | 6.12         | --    | --           | 7.87         | --      | --       | 5.25         | 1.92         | 6.65         | 4.52          | 2.32          | 2.31         | 3.38         | 1.59         | 3.57         | 7.73         | --         |              |  |

Table 2.5.31 Purity % at 240 days

| S.No. | Entries     | Coimbatore   | Akola     | Basmathnagar | Belgaum      | Kawarda   | Kolhapur  | Man-dya      | Navsari      | Padegaon     | Permallapalle | Pravarannagar | Pugalur      | Pune         | Rudrur       | Sameerwadi   | Sanke-shwar  | Thiruvalla | Mean         |  |
|-------|-------------|--------------|-----------|--------------|--------------|-----------|-----------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|--|
| 1     | Co 17001    | 89.43        | --        | --           | 85.69        | --        | --        | 92.75        | 86.37        | 79.68        | 86.60         | 88.21         | 87.81        | 84.89        | 87.82        | 88.37        | 88.22        | --         | 87.15        |  |
| 2     | Co 17002    | 85.79        | --        | --           | 83.36        | --        | --        | 91.91        | 84.80        | 76.42        | 86.83         | 88.87         | 82.55        | 84.09        | 80.50        | 83.59        | 87.35        | --         | 84.67        |  |
| 3     | Co 17003    | 87.53        | --        | --           | 80.11        | --        | --        | 93.81        | 84.40        | 75.67        | 86.57         | 89.82         | 84.75        | 83.42        | 87.71        | 85.27        | 90.20        | --         | 85.77        |  |
| 4     | Co 17004    | 81.48        | --        | --           | 79.59        | --        | --        | 93.47        | 84.82        | 72.46        | 85.93         | 88.89         | 81.68        | 79.01        | 76.53        | 80.42        | 83.15        | --         | 82.29        |  |
| 5     | Co 17005    | 87.97        | --        | --           | 72.63        | --        | --        | 92.33        | 83.50        | 81.22        | 86.00         | 89.39         | 87.20        | 87.22        | 76.87        | 82.59        | 83.24        | --         | 84.18        |  |
| 6     | Co 17006    | 87.49        | --        | --           | 89.73        | --        | --        | 93.89        | 82.96        | 81.08        | 86.60         | 87.65         | 86.79        | 84.39        | 82.22        | 85.78        | 82.55        | --         | 85.93        |  |
| 7     | Co 17008    | 86.82        | --        | --           | 81.74        | --        | --        | 93.89        | 82.65        | 82.73        | 85.87         | 89.02         | 85.07        | 81.75        | 83.56        | 80.16        | 82.00        | --         | 84.60        |  |
| 8     | Co 17010    | 85.47        | --        | --           | 92.37        | --        | --        | 92.54        | 84.54        | 83.58        | 86.53         | 90.80         | 83.31        | 79.29        | 80.44        | 86.87        | 92.31        | --         | 86.50        |  |
| 9     | Co 17012    | 87.28        | --        | --           | 79.40        | --        | --        | 90.96        | 83.59        | 79.44        | 86.60         | 89.19         | 85.81        | 76.40        | 75.12        | 83.12        | 84.06        | --         | 83.41        |  |
| 10    | Co 17013    | 85.61        | --        | --           | 83.22        | --        | --        | 93.91        | 84.94        | 77.85        | 86.17         | 89.61         | 84.21        | 81.43        | 77.39        | 82.41        | 85.87        | --         | 84.38        |  |
| 11    | Co 17014    | 85.41        | --        | --           | 78.81        | --        | --        | 91.70        | 85.02        | 85.60        | 85.57         | 90.85         | 85.01        | 87.40        | 81.62        | 86.15        | 91.01        | --         | 86.18        |  |
| 12    | CoVC 17061  | 86.61        | --        | --           | 78.35        | --        | --        | 94.02        | 84.15        | 72.91        | 85.60         | 89.44         | 86.68        | 84.84        | 73.95        | 78.13        | 76.73        | --         | 82.62        |  |
| 13    | CoN 17071   | 84.32        | --        | --           | 78.62        | --        | --        | 89.53        | 82.28        | 72.11        | 85.80         | 91.25         | 83.01        | 77.74        | 71.92        | 79.07        | 74.43        | --         | 80.84        |  |
| 14    | CoN 17072   | 81.10        | --        | --           | 77.98        | --        | --        | 86.65        | 84.38        | 70.88        | 86.50         | 89.75         | 82.25        | 76.27        | 77.35        | 76.37        | 86.64        | --         | 81.34        |  |
| 15    | MS 17081    | 81.39        | --        | --           | 82.00        | --        | --        | 90.27        | 86.16        | 71.43        | 85.83         | 90.14         | 77.53        | 79.30        | 77.84        | 75.89        | 79.90        | --         | 81.47        |  |
| 16    | MS 17082    | 82.19        | --        | --           | 78.98        | --        | --        | 91.16        | 71.55        | 69.85        | 86.57         | 91.46         | 78.56        | 83.37        | 80.39        | 78.72        | 86.88        | --         | 81.64        |  |
| 17    | CoVSI 17121 | 82.16        | --        | --           | 82.67        | --        | --        | 93.60        | 82.77        | 77.39        | 85.87         | 90.59         | 78.54        | 78.32        | 75.50        | 80.19        | 86.38        | --         | 82.83        |  |
| 18    | CoT 17366   | 85.53        | --        | --           | 83.11        | --        | --        | 93.31        | 82.30        | 76.43        | 85.87         | 88.50         | 82.65        | 78.01        | 76.09        | 76.8         | 86.52        | --         | 82.93        |  |
|       | <b>Stds</b> |              |           |              |              |           |           |              |              |              |               |               |              |              |              |              |              |            |              |  |
| 1     | Co 86032    | 87.19        | --        | --           | 79.11        | --        | --        | 93.37        | 85.55        | 80.89        | 86.23         | 91.67         | 85.15        | 88.68        | 70.39        | 86.95        | 91.43        | --         | 85.55        |  |
| 2     | CoC 671     | 90.59        | --        | --           | 77.04        | --        | --        | 93.76        | 85.90        | 83.65        | 87.27         | 91.37         | 87.50        | 89.26        | 79.45        | 83.94        | 90.78        | --         | 86.71        |  |
| 3     | Co 09004    | 88.40        | --        | --           | 87.07        | --        | --        | 92.14        | 84.40        | 87.40        | 86.53         | 88.50         | 88.12        | 88.98        | 84.83        | 87.69        | 90.79        | --         | 87.90        |  |
|       | <b>Mean</b> | <b>85.70</b> | <b>--</b> | <b>--</b>    | <b>81.50</b> | <b>--</b> | <b>--</b> | <b>92.33</b> | <b>83.67</b> | <b>78.03</b> | <b>86.25</b>  | <b>89.76</b>  | <b>84.01</b> | <b>82.57</b> | <b>78.93</b> | <b>86.19</b> | <b>85.73</b> | <b>--</b>  | <b>84.56</b> |  |
|       | SE(m)       | 1.36         | --        | --           | 2.79         | --        | --        | 1.11         | 0.79         | 2.40         | 0.32          | 0.59          | 0.22         | 1.03         | 0.69         | 1.45         | 3.91         | --         |              |  |
|       | CD          | 3.89         | --        | --           | 7.97         | --        | --        | 3.18         | 2.27         | 6.85         | 0.91          | 1.71          | 0.63         | 2.93         | 1.98         | 4.16         | 11.52        | --         |              |  |
|       | CV          | 2.74         | --        | --           | 5.92         | --        | --        | 2.09         | 1.64         | 5.32         | 0.64          | 1.15          | 0.46         | 2.15         | 1.52         | 3.05         | 6.44         | --         |              |  |

**Table 2.5.32 Number of shoots ( $\times 1000/\text{ha}$ ) at 240 days**

| S.No. | Entries     | Coimbatore   | Akola        | Basmathnagar | Belgaum      | Kawarda   | Kolhapur  | Man-dya      | Navsari       | Padegaon     | Permallapalle | Pravaranagar  | Pugalur       | Pune         | Rudrur       | Sameerwadi   | Sanke shwar  | Thiruvalla | Mean         |  |
|-------|-------------|--------------|--------------|--------------|--------------|-----------|-----------|--------------|---------------|--------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|------------|--------------|--|
| 1     | Co 17001    | 90.09        | 78.99        | --           | 78.01        | --        | --        | 85.74        | 132.98        | 76.93        | 86.01         | 110.47        | 115.30        | 79.63        | 79.55        | 73.33        | 76.46        | --         | 89.50        |  |
| 2     | Co 17002    | 87.01        | 91.78        | --           | 77.55        | --        | --        | 99.07        | 144.45        | 67.82        | 93.83         | 113.80        | 118.90        | 84.56        | 98.61        | 88.00        | 73.57        | --         | 95.30        |  |
| 3     | Co 17003    | 88.17        | 96.30        | --           | 94.56        | --        | --        | 94.35        | 144.95        | 91.90        | 84.56         | 110.49        | 124.58        | 87.48        | 99.61        | 98.33        | 63.64        | --         | 98.38        |  |
| 4     | Co 17004    | 88.17        | 82.45        | --           | 78.13        | --        | --        | 93.98        | 143.01        | 73.84        | 87.45         | 112.37        | 110.55        | 81.67        | 84.98        | 84.00        | 73.46        | --         | 91.85        |  |
| 5     | Co 17005    | 89.32        | 115.71       | --           | 75.23        | --        | --        | 84.72        | 128.80        | 71.76        | 92.80         | 122.79        | 135.72        | 83.44        | 69.75        | 77.00        | 77.85        | --         | 94.22        |  |
| 6     | Co 17006    | 87.01        | 83.96        | --           | 62.62        | --        | --        | 60.37        | 130.40        | 66.67        | 69.32         | 121.86        | 127.60        | 71.78        | 90.39        | 76.66        | 66.18        | --         | 85.75        |  |
| 7     | Co 17008    | 44.28        | 80.80        | --           | 72.80        | --        | --        | 72.5         | 136.07        | 49.54        | 77.46         | 118.92        | 124.00        | 59.57        | 59.77        | 63.66        | 49.90        | --         | 77.64        |  |
| 8     | Co 17010    | 83.55        | 82.60        | --           | 78.94        | --        | --        | 87.59        | 146.38        | 49.00        | 87.76         | 101.60        | 124.00        | 78.63        | 69.52        | 73.66        | 69.76        | --         | 87.15        |  |
| 9     | Co 17012    | 91.63        | 80.05        | --           | 86.23        | --        | --        | 88.61        | 129.29        | 93.75        | 86.62         | 108.53        | 136.65        | 90.56        | 81.17        | 94.00        | 85.59        | --         | 96.36        |  |
| 10    | Co 17013    | 80.08        | 81.10        | --           | 71.76        | --        | --        | 92.31        | 127.24        | 75.00        | 79.00         | 117.37        | 120.64        | 69.07        | 62.67        | 85.33        | 60.06        | --         | 86.28        |  |
| 11    | Co 17014    | 46.20        | 79.29        | --           | 77.43        | --        | --        | 73.52        | 135.86        | 63.43        | 70.45         | 121.95        | 101.04        | 55.00        | 61.11        | 68.66        | 44.70        | --         | 76.82        |  |
| 12    | CoVC 17061  | 85.09        | 82.30        | --           | 100.12       | --        | --        | 104.35       | 145.57        | 77.16        | 100.84        | 118.45        | 148.71        | 91.56        | 94.60        | 100.33       | 82.01        | --         | 102.39       |  |
| 13    | CoN 17071   | 79.31        | 79.44        | --           | 100.69       | --        | --        | 92.59        | 137.04        | 96.37        | 94.55         | 117.44        | 150.34        | 95.93        | 92.13        | 88.66        | 81.08        | --         | 100.43       |  |
| 14    | CoN 17072   | 78.54        | 86.97        | --           | 74.07        | --        | --        | 85.46        | 137.56        | 55.71        | 89.61         | 120.97        | 122.96        | 54.11        | 69.98        | 89.00        | 65.84        | --         | 86.98        |  |
| 15    | MS 17081    | 77.00        | 78.69        | --           | 82.29        | --        | --        | 105.74       | 144.23        | 82.64        | 91.88         | 115.76        | 146.39        | 74.22        | 71.91        | 82.66        | 77.15        | --         | 94.66        |  |
| 16    | MS 17082    | 79.31        | 76.59        | --           | 89.12        | --        | --        | 93.24        | 151.84        | 79.94        | 85.80         | 106.28        | 132.24        | 84.22        | 83.95        | 93.00        | 67.34        | --         | 94.07        |  |
| 17    | CoVSI 17121 | 77.77        | 77.34        | --           | 77.89        | --        | --        | 80.93        | 135.75        | 71.84        | 72.51         | 118.75        | 109.16        | 74.18        | 75.83        | 86.00        | 74.73        | --         | 87.13        |  |
| 18    | CoT 17366   | 80.85        | 81.40        | --           | 89.35        | --        | --        | 95.65        | 134.97        | 79.32        | 85.49         | 120.69        | 144.65        | 84.00        | 91.44        | 91.00        | 83.39        | --         | 97.09        |  |
|       | <b>Stds</b> |              |              |              |              |           |           |              |               |              |               |               |               |              |              |              |              |            |              |  |
| 1     | Co 86032    | 85.47        | 108.94       | --           | 115.97       | --        | --        | 117.96       | 140.57        | 89.81        | 112.79        | 136.44        | 161.24        | 89.04        | 99.61        | 84.66        | 89.17        | --         | 110.13       |  |
| 2     | CoC 671     | 77.77        | 108.94       | --           | 95.49        | --        | --        | 87.96        | 127.30        | 72.99        | 93.32         | 122.35        | 178.64        | 70.92        | 86.44        | 83.66        | 65.84        | --         | 97.82        |  |
| 3     | Co 09004    | 96.25        | --           | --           | 83.80        | --        | --        | 109.91       | 126.73        | 77.16        | 96.72         | 122.75        | 139.43        | 68.26        | 86.11        | 76.66        | 87.55        | --         | 97.61        |  |
|       | <b>Mean</b> | <b>80.61</b> | <b>87.09</b> | <b>--</b>    | <b>83.91</b> | <b>--</b> | <b>--</b> | <b>90.79</b> | <b>137.19</b> | <b>74.41</b> | <b>87.56</b>  | <b>117.14</b> | <b>132.04</b> | <b>77.52</b> | <b>81.39</b> | <b>81.66</b> | <b>72.15</b> | <b>--</b>  | <b>92.57</b> |  |
|       | SE(m)       | 4.23         | 4.26         | --           | 4.59         | --        | --        | 3.59         | 4.41          | 2.82         | 4.11          | 0.67          | 7.47          | 4.33         | 4.23         | 5.72         | 10.38        | --         |              |  |
|       | CD          | 10.01        | 12.19        | --           | 13.13        | --        | --        | 10.27        | 12.60         | 8.05         | 11.75         | 1.91          | 21.35         | 12.38        | 12.09        | 16.42        | 30.63        | --         |              |  |
|       | CV          | 8.56         | 8.51         | --           | 9.48         | --        | --        | 6.85         | 5.56          | 6.56         | 8.13          | 0.99          | 9.80          | 9.68         | 9.00         | 11.84        | 20.35        | --         |              |  |



**Table 21.5.33 Number of tillers ('000/ha) at 120 days**

| S.No. | Entries     | Coimbatore   | Akola        | Basmathnagar | Belgaum       | Kawarda   | Kolhapur      | Man-dya       | Navsari       | Padegaon     | Permallapalle | Pravaranagar  | Pugalur       | Pune          | Rudrur       | Sameerwadi    | Sanke-shwar   | Thiruvalla    | Mean          |  |
|-------|-------------|--------------|--------------|--------------|---------------|-----------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--|
| 1     | Co 17001    | 104.05       | 40.51        | --           | 129.63        | --        | 104.40        | 111.11        | 176.40        | 92.36        | 117.935       | 119.13        | 146.28        | 183.11        | 110.03       | 90.66         | 109.15        | 124.65        | 117.29        |  |
| 2     | Co 17002    | 100.50       | 47.07        | --           | 141.67        | --        | 112.50        | 131.39        | 174.07        | 82.41        | 122.261       | 123.61        | 155.21        | 166.22        | 95.83        | 97.66         | 99.21         | 117.94        | 117.84        |  |
| 3     | Co 17003    | 101.83       | 49.38        | --           | 182.87        | --        | 132.64        | 132.96        | 175.55        | 93.06        | 120.098       | 118.09        | 160.08        | 213.33        | 97.54        | 113.33        | 101.18        | 110.07        | 126.80        |  |
| 4     | Co 17004    | 101.83       | 42.28        | --           | 168.40        | --        | 106.71        | 130.28        | 162.52        | 95.14        | 126.896       | 122.75        | 140.71        | 194.56        | 103.32       | 95.66         | 129.59        | 114.93        | 122.37        |  |
| 5     | Co 17005    | 103.16       | 59.34        | --           | 123.96        | --        | 147.22        | 126.48        | 155.52        | 78.47        | 145.23        | 131.07        | 173.88        | 239.22        | 83.38        | 101.66        | 120.81        | 105.67        | 126.34        |  |
| 6     | Co 17006    | 100.50       | 43.06        | --           | 116.78        | --        | 139.12        | 74.35         | 155.26        | 84.26        | 88.58         | 135.60        | 163.44        | 134.67        | 89.92        | 84.00         | 127.74        | 107.75        | 109.67        |  |
| 7     | Co 17008    | 51.14        | 41.44        | --           | 140.51        | --        | 137.04        | 122.5         | 163.51        | 57.41        | 124.733       | 128.54        | 159.50        | 164.45        | 55.09        | 73.66         | 83.16         | 97.22         | 106.66        |  |
| 8     | Co 17010    | 96.49        | 42.36        | --           | 149.07        | --        | 129.74        | 128.8         | 169.73        | 57.41        | 112.785       | 109.32        | 156.83        | 171.44        | 98.29        | 88.00         | 100.83        | 125.81        | 115.79        |  |
| 9     | Co 17012    | 105.83       | 41.05        | --           | 156.83        | --        | 125.46        | 133.43        | 155.27        | 109.26       | 110.519       | 116.61        | 181.77        | 255.44        | 104.63       | 114.33        | 133.75        | 98.49         | 129.51        |  |
| 10    | Co 17013    | 92.49        | 41.59        | --           | 143.17        | --        | 100.12        | 139.07        | 156.66        | 88.66        | 118.862       | 124.82        | 160.31        | 206.56        | 104.75       | 108.66        | 123.01        | 91.78         | 120.03        |  |
| 11    | Co 17014    | 53.36        | 40.66        | --           | 132.06        | --        | 128.82        | 104.81        | 163.25        | 68.52        | 80.752        | 129.51        | 127.83        | 133.00        | 85.02        | 72.66         | 82.01         | 96.18         | 99.90         |  |
| 12    | CoVC 17061  | 98.27        | 42.21        | --           | 172.34        | --        | 135.76        | 178.15        | 171.63        | 91.67        | 149.865       | 128.58        | 187.92        | 234.78        | 105.29       | 98.33         | 117.69        | 112.73        | 135.01        |  |
| 13    | CoN 17071   | 91.60        | 40.74        | --           | 163.54        | --        | 188.19        | 114.07        | 163.99        | 101.62       | 137.299       | 126.62        | 206.60        | 225.56        | 113.73       | 108.66        | 122.20        | 111.11        | 134.37        |  |
| 14    | CoN 17072   | 90.71        | 44.6         | --           | 165.05        | --        | 109.49        | 158.7         | 162.83        | 70.14        | 121.025       | 129.33        | 157.99        | 162.89        | 104.32       | 92.00         | 114.35        | 89.00         | 118.16        |  |
| 15    | MS 17081    | 88.94        | 40.35        | --           | 202.78        | --        | 161.23        | 181.11        | 160.67        | 105.79       | 134.93        | 126.29        | 202.65        | 257.33        | 112.96       | 128.33        | 151.31        | 124.08        | 145.25        |  |
| 16    | MS 17082    | 91.60        | 39.27        | --           | 187.85        | --        | 120.60        | 125           | 172.10        | 103.24       | 118.553       | 115.17        | 177.60        | 236.66        | 118.83       | 115.00        | 125.09        | 96.99         | 129.57        |  |
| 17    | CoVSI 17121 | 89.82        | 39.66        | --           | 154.17        | --        | 104.40        | 137.22        | 156.39        | 93.75        | 122.982       | 125.49        | 138.16        | 206.22        | 92.16        | 102.00        | 130.63        | 91.09         | 118.94        |  |
| 18    | CoT 17366   | 93.38        | 41.74        | --           | 165.63        | --        | 125.69        | 130.46        | 158.63        | 91.44        | 125.66        | 129.21        | 170.87        | 227.11        | 83.80        | 117.33        | 144.14        | 111.57        | 127.78        |  |
|       | <b>Stds</b> |              |              |              |               |           |               |               |               |              |               |               |               |               |              |               |               |               |               |  |
| 1     | Co 86032    | 98.72        | 55.86        | --           | 223.26        | --        | 150.92        | 137.22        | 164.44        | 107.87       | 181.80        | 143.95        | 203.00        | 247.00        | 121.60       | 121.33        | 149.57        | 125.35        | 148.79        |  |
| 2     | CoC 671     | 89.82        | 55.86        | --           | 161.92        | --        | 121.99        | 117.22        | 154.77        | 96.30        | 123.09        | 128.15        | 226.66        | 220.00        | 87.81        | 123.66        | 131.09        | 108.56        | 129.79        |  |
| 3     | Co 09004    | 111.17       | --           | --           | 131.48        | --        | 102.20        | 128.7         | 155.94        | 88.19        | 133.59        | 130.74        | 174.93        | 182.44        | 91.36        | 86.66         | 131.55        | 116.21        | 126.08        |  |
|       | <b>Mean</b> | <b>93.11</b> | <b>44.66</b> | <b>--</b>    | <b>157.76</b> | <b>--</b> | <b>127.82</b> | <b>130.62</b> | <b>163.29</b> | <b>88.43</b> | <b>124.64</b> | <b>125.83</b> | <b>170.11</b> | <b>202.95</b> | <b>98.08</b> | <b>110.55</b> | <b>120.38</b> | <b>108.44</b> | <b>124.44</b> |  |
|       | SE(m)       | 6.20         | 2.18         | --           | 12.33         | --        | 7.26          | 6.34          | 4.99          | 4.79         | 5.20          | 0.79          | 9.00          | 7.67          | 3.78         | 5.74          | 17.42         | 4.98          |               |  |
|       | CD          | 17.79        | 6.25         | --           | 35.23         | --        | 21.41         | 18.12         | 14.27         | 13.70        | 14.87         | 2.27          | 25.73         | 21.91         | 10.82        | 16.46         | 51.40         | 14.16         |               |  |
|       | CV          | 12.10        | 8.51         | --           | 13.53         | --        | 8.03          | 8.41          | 5.30          | 9.39         | 7.23          | 1.09          | 9.17          | 6.54          | 6.68         | 9.78          | 20.47         | 7.96          |               |  |

Table 2.5.34 Germination % (30 days)

| S.No. | Entries     | Coim batore  | Akola        | Basmath nagar | Bel gaum     | Kaw arda     | Kolha pur    | Man dya      | Nav sari     | Pade gaon    | Permailla palle | Pravara nagar | Puga lur     | Pune         | Rud rur      | Sameer wadi  | Sanke shwar  | Thiru valla  | Mean         |
|-------|-------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | Co 17001    | 51.43        | 62.67        | --            | 46.41        | 65.28        | 46.76        | 47.33        | 61.21        | 66.67        | 65.74           | 43.43         | 66.55        | 61.03        | 51.26        | 57.03        | 36.27        | 58.45        | 55.47        |
| 2     | Co 17002    | 48.24        | 69.00        | --            | 62.15        | 72.22        | 42.13        | 56.67        | 66.36        | 66.25        | 60.34           | 51.86         | 77.66        | 64.67        | 54.59        | 64.72        | 37.54        | 58.10        | 59.53        |
| 3     | Co 17003    | 49.97        | 57.33        | --            | 56.37        | 57.36        | 36.23        | 41.33        | 66.11        | 51.67        | 52.47           | 43.77         | 63.77        | 53.49        | 49.41        | 49.25        | 25.87        | 56.13        | 50.66        |
| 4     | Co 17004    | 51.61        | 66.67        | --            | 75.23        | 64.17        | 42.82        | 56.67        | 65.23        | 85.00        | 69.06           | 46.82         | 63.19        | 65.99        | 55.63        | 63.79        | 44.47        | 51.85        | 60.51        |
| 5     | Co 17005    | 55.69        | 67.33        | --            | 49.19        | 79.17        | 38.19        | 51.00        | 52.85        | 37.92        | 57.02           | 42.93         | 73.38        | 63.69        | 40.81        | 50.74        | 35.46        | 56.71        | 53.26        |
| 6     | Co 17006    | 55.03        | 61.67        | --            | 34.03        | 56.94        | 45.95        | 32.00        | 55.88        | 39.17        | 50.62           | 48.48         | 70.95        | 39.04        | 43.78        | 43.05        | 36.04        | 46.29        | 47.43        |
| 7     | Co 17008    | 50.98        | 70.00        | --            | 59.72        | 57.64        | 71.64        | 50.67        | 59.54        | 41.25        | 54.63           | 46.76         | 73.50        | 67.80        | 34.59        | 52.68        | 21.14        | 57.06        | 54.35        |
| 8     | Co 17010    | 56.18        | 63.67        | --            | 63.43        | 62.22        | 44.33        | 59.00        | 62.22        | 52.92        | 51.31           | 47.92         | 76.85        | 66.44        | 34.37        | 57.31        | 25.87        | 50.81        | 54.68        |
| 9     | Co 17012    | 50.99        | 59.33        | --            | 52.43        | 68.61        | 43.52        | 41.00        | 58.25        | 77.92        | 51.00           | 49.06         | 70.95        | 64.53        | 41.78        | 66.57        | 25.87        | 55.55        | 54.84        |
| 10    | Co 17013    | 53.35        | 60.33        | --            | 67.01        | 60.00        | 41.90        | 70.33        | 56.75        | 67.08        | 52.31           | 42.65         | 63.31        | 64.38        | 44.52        | 60.74        | 35.81        | 54.63        | 55.94        |
| 11    | Co 17014    | 51.10        | 62.67        | --            | 52.08        | 44.31        | 65.74        | 58.00        | 59.61        | 62.92        | 44.44           | 50.32         | 68.63        | 61.03        | 53.33        | 53.88        | 36.61        | 57.99        | 55.17        |
| 12    | CoVC 17061  | 51.25        | 68.00        | --            | 60.30        | 80.83        | 54.63        | 46.33        | 67.20        | 56.25        | 65.97           | 48.62         | 75.23        | 61.57        | 46.67        | 55.64        | 28.07        | 53.59        | 57.51        |
| 13    | CoN 17071   | 50.54        | 67.33        | --            | 48.38        | 60.97        | 69.56        | 46.67        | 58.65        | 65.83        | 56.17           | 56.96         | 75.58        | 61.60        | 54.44        | 65.27        | 30.95        | 56.48        | 57.84        |
| 14    | CoN 17072   | 53.13        | 70.00        | --            | 56.13        | 71.39        | 36.34        | 58.00        | 60.05        | 49.58        | 55.71           | 47.45         | 74.54        | 60.08        | 46.67        | 51.38        | 28.41        | 56.13        | 54.69        |
| 15    | MS 17081    | 51.12        | 61.33        | --            | 71.18        | 60.83        | 52.31        | 71.33        | 62.91        | 69.58        | 56.64           | 48.21         | 71.30        | 58.01        | 52.52        | 71.94        | 34.30        | 52.55        | 59.13        |
| 16    | MS 17082    | 59.42        | 71.33        | --            | 63.54        | 64.17        | 43.29        | 60.00        | 64.20        | 68.33        | 50.00           | 46.00         | 80.44        | 56.56        | 53.63        | 72.68        | 32.22        | 52.55        | 58.65        |
| 17    | CoVSI 17121 | 50.32        | 65.00        | --            | 54.75        | 71.94        | 40.97        | 51.67        | 57.84        | 56.25        | 50.85           | 47.16         | 53.82        | 62.49        | 37.78        | 64.44        | 28.99        | 56.94        | 53.20        |
| 18    | CoT 17366   | 47.56        | 71.00        | --            | 62.85        | 58.61        | 50.23        | 57.67        | 60.18        | 70.83        | 58.49           | 49.29         | 75.69        | 63.89        | 36.00        | 72.5         | 42.04        | 55.32        | 58.26        |
|       | <b>Stds</b> |              |              |               |              |              |              |              |              |              |                 |               |              |              |              |              |              |              |              |
| 1     | Co 86032    | 49.83        | 66.00        | --            | 50.35        | 71.94        | 49.07        | 50.67        | 56.81        | 72.92        | 61.65           | 56.08         | 65.74        | 53.48        | 50.07        | 62.87        | 37.19        | 54.86        | 56.85        |
| 2     | CoC 671     | 50.65        | 69.33        | --            | 35.53        | 65.97        | 29.40        | 46.67        | 54.24        | 60.42        | 56.17           | 41.92         | 77.66        | 49.65        | 47.04        | 61.02        | 32.57        | 50.58        | 51.80        |
| 3     | Co 09004    | 56.32        | --           | --            | 53.70        | 57.64        | 33.22        | 61.67        | 57.82        | 62.08        | 61.03           | 49.03         | 80.21        | 62.05        | 55.85        | 53.33        | 41.81        | 54.28        | 56.00        |
|       | <b>Mean</b> | <b>52.13</b> | <b>65.65</b> | <b>--</b>     | <b>55.94</b> | <b>64.97</b> | <b>46.58</b> | <b>53.08</b> | <b>60.19</b> | <b>60.99</b> | <b>56.27</b>    | <b>47.84</b>  | <b>71.38</b> | <b>60.07</b> | <b>46.89</b> | <b>59.07</b> | <b>33.21</b> | <b>54.61</b> | <b>55.55</b> |
|       | SE(m)       | 1.57         | 4.15         | --            | 5.21         | 6.25         | 4.33         | 2.73         | 2.02         | 5.17         | 2.30            | 1.37          | 3.73         | 1.96         | 2.53         | 3.4          | 4.08         | 3.03         |              |
|       | CD          | 4.52         | 11.88        | --            | 14.90        | 17.87        | 12.76        | 7.81         | 5.77         | 14.78        | 6.58            | 3.94          | 10.66        | 5.59         | 7.22         | 9.76         | 12.03        | NS           |              |
|       | CV          | 5.27         | 10.98        | --            | 16.14        | 16.82        | 13.13        | 8.92         | 5.81         | 14.68        | 7.08            | 4.99          | 9.05         | 5.64         | 9.34         | 9.89         | 17.36        | 9.61         |              |

**Table 2.5.35 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S.No | Entries       | Coimbatore | Mandya   | Perumalpal | Pugalur  | Sameerwadi | Sankeshwar | Thiruvalla | Belagavi | Kolhapur     |
|------|---------------|------------|----------|------------|----------|------------|------------|------------|----------|--------------|
| 1    | Co 17001      | better     | On Par   | On Par     | On par   | better     | Better     | Better     | better   | Better       |
| 2    | Co 17002      | better     | Better   | Better     | average  | better     | Better     | On par     | On par   | Better       |
| 3    | Co 17003      | On par     | On Par   | On Par     | On par   | On par     | Better     | On Par     | On par   | Poor         |
| 4    | Co 17004      | better     | On Par   | On Par     | On par   | better     | Better     | On Par     | better   | On Par       |
| 5    | Co 17005      | on par     | poor     | On Par     | Poor     | average    | Better     | On Par     | better   | Better       |
| 6    | Co 17006      | poor       | Better   | Poor       | On par   | On par     | Average    | On Par     | On par   | On Par       |
| 7    | Co 17008      | on par     | poor     | On Par     | better   | On par     | Average    | Poor       | On par   | Better       |
| 8    | Co 17010      | better     | Better   | Poor       | average  | On par     | Better     | On par     | better   | On Par       |
| 9    | Co 17012      | On par     | On Par   | On Par     | average  | On par     | Better     | On par     | better   | On Par       |
| 10   | Co 17013      | On par     | Better   | Better     | average  | better     | Better     | Poor       | On par   | Poor         |
| 11   | Co 17014      | better     | Better   | Poor       | On par   | better     | Average    | poor       | On par   | Better       |
| 12   | CoVC 17061    | On par     | Better   | On Par     | On par   | On par     | Better     | On Par     | On par   | Better       |
| 13   | CoN 17071     | On par     | Better   | Better     | On par   | Better     | Better     | On Par     | On par   | On Par       |
| 14   | CoN 17072     | better     | Better   | Better     | better   | Better     | Better     | On Par     | better   | Better       |
| 15   | MS 17081      | better     | On Par   | On Par     | On par   | On par     | Better     | Better     | On par   | Better       |
| 16   | MS 17082      | On par     | On Par   | On Par     | better   | On par     | Better     | Poor       | On par   | On Par       |
| 17   | CoVSI 17121   | On par     | Better   | Poor       | better   | On par     | Better     | On Par     | On par   | Poor         |
| 18   | CoT 17366     | better     | Better   | On Par     | average  | On par     | Better     | Better     | On par   | Better       |
|      | Std1 Co 86032 | Best std   | Best std |            | Best std | Best std   | On par     | Best Std   | Best Std | Best Std     |
|      | Std2 CoC 671  | On par     | On par   |            | average  | On par     | On par     | On Par     | On par   | 3rd Best Std |
|      | Std3 Co 09004 | On par     | On par   |            | On par   | On par     | Best Std.  | On Par     | On par   | 2ndbest Std  |

| No.                | Variety     | Navsari   | Pune      | Padegaon  | Rudrur    | Pravaranganagar | Tharsa    | Kawardha  | Powerkheda |
|--------------------|-------------|-----------|-----------|-----------|-----------|-----------------|-----------|-----------|------------|
| 1                  | Co 17001    | Good      | Very Good | Good      | Good      | Good            | Very Good | Very good | Very good  |
| 2                  | Co 17002    | Very Good | Very Good | Poor      | Good      | Very Good       | Very Good | Good      | Good       |
| 3                  | Co 17003    | Very Good | Very Good | Excellent | Average   | Good            | Very Good | Good      | Good       |
| 4                  | Co 17004    | Very Good | Excellent | Average   | Very good | Good            | Very Good | Very good | Average    |
| 5                  | Co 17005    | Poor      | Very good | Poor      | Average   | Good            | Excellent | Good      | Good       |
| 6                  | Co 17006    | Average   | Good      | Average   | Good      | Average         | Good      | Average   | Very good  |
| 7                  | Co 17008    | Average   | Good      | Poor      | Good      | Good            | Very Good | Good      | Very good  |
| 8                  | Co 17010    | Very Good | Very good | Average   | Good      | Good            | Excellent | Very good | Poor       |
| 9                  | Co 17012    | Average   | Excellent | Very good | Very good | Very Good       | Very Good | Excellent | Good       |
| 10                 | Co 17013    | Good      | Good      | Very good | Average   | Very Good       | Very Good | Good      | Very good  |
| 11                 | Co 17014    | Good      | Good      | Poor      | Good      | Good            | Good      | Poor      | Good       |
| 12                 | CoVC 17061  | Very Good | Very good | Good      | Very good | Average         | Very Good | Very good | Average    |
| 13                 | CoN 17071   | Average   | Very good | Poor      | Good      | Good            | Very Good | Excellent | Very good  |
| 14                 | CoN 17072   | Good      | Good      | Poor      | Very good | Very Good       | Very Good | Very good | Average    |
| 15                 | MS 17081    | Good      | Good      | Very good | Good      | Good            | Good      | Very good | Average    |
| 16                 | MS 17082    | Very Good | Excellent | Very good | Average   | Good            | Good      | Excellent | Very good  |
| 17                 | CoVSI 17121 | Average   | Very good | Good      | Very good | Very Good       | Very Good | Very good | Average    |
| 18                 | CoT 17366   | Good      | Very good | Good      | Good      | Good            | Very Good | Very good | Very Good  |
| <b>Standards :</b> |             |           |           |           |           |                 |           |           |            |
| 19                 | Co 86032    | Good      | Very good | Excellent | Very good | Very Good       | Very Good | Very good |            |
| 20                 | CoC 671     | Good      | Very good | Very good | Good      | Average         | Good      | Excellent |            |
| 21                 | Co 09004    | Very Good | Very good | Good      | Good      | Good            | -         | Average   |            |

### 3. EAST COAST ZONE

East Coast Zone comprises the states of Andhra Pradesh, Odisha and Tamil Nadu. There are five AICRP (Sugarcane) centres in the zone and the details are given below.

| States         | AICRP(S) centres       |
|----------------|------------------------|
| Andhra Pradesh | Anakapalle, Vuyyuru    |
| Odisha         | Nayagarh               |
| Tamil Nadu     | Cuddalore, Nellikuppam |

#### List of trials conducted

Six AICRP(S) trials were evaluated in the zone during 2020-21. The number of trials conducted at each centre during 2020-2021 is given below.

| Sl. No | Location    | AVT<br>Early II<br>Plant | AVT<br>Early<br>Ratoon | AVT<br>Early I<br>Plant | IVT<br>Early | AVT<br>Midlate<br>II Plant | AVT<br>Midlate<br>Ratoon |
|--------|-------------|--------------------------|------------------------|-------------------------|--------------|----------------------------|--------------------------|
| 1      | Anakapalle  | C                        | C                      | C                       | C            | C                          | C                        |
| 2      | Cuddalore   | C                        | C                      | C                       | C            | C                          | C                        |
| 3      | Nayagarh    | C                        | C                      | C                       | C            | C                          | C                        |
| 4      | Nellikuppam | C                        | C                      | C                       | C            | C                          | C                        |
| 5      | Vuyyuru     | C                        | C                      | C                       | C            | C                          | C                        |

C = Conducted

### 3.1 ADVANCED VARIETAL TRIAL (EARLY) – II PLANT

|               |  |
|---------------|--|
| Centres (5)   | Anakapalle, Cuddalore, Nayagarh, Nellikuppam and Vuyyuru |
| Entries (4)   | CoA 16321, CoC 16336, CoC 16337 and CoV 16356            |
| Standards (3) | CoA 92081, CoC 01061 and CoOr 03151                      |
| Design        | Randomized Block Design                                  |
| Replications  | Three  |
| Plot size     | Gross : 6.0 m x 8R x 0.90 m<br>Net : 5.0 m x 6R x 0.90 m |
| Bud rate      | 12 buds/ metre   |
| Planting time | 1 <sup>st</sup> fortnight of January                     |
| Crop duration | 10 months  |

#### Results of the previous year

AVT I plant crop was conducted in all five centres in the zone. Three entries (CoV 16356, CoA 16321, CoC 16337) recorded higher CCS yield over the best standard CoA 92081 (12.76 t/ha) across locations. CoV 16356 (13.75 t/ha) was the best entry in the trial with 7.74 % improvement over the standard CoA 92081. No entry recorded more than 10% improvement for CCS yield over the best standard CoA 92081 across the locations. CoC 16337 was the best entry for cane yield (115.28 t/ha) which recorded 3.27 % improvement over the better standard CoOr 03151 (111.62 t/ha). None of the entries recorded more than 10 % improvement for cane yield over the best standard CoOr 03151 across locations. CoV 16356 recorded the highest mean CCS % of 12.40 and 17.70 % juice sucrose while the best standard CoA 92081 recorded 12.17 % and 17.41 % sucrose respectively. No entry recorded more than 5 % improvement for CCS % and juice sucrose % over the best standard CoA 92081 across the zone. No qualifying entry for cane yield and juice quality could be identified from this trial.

#### Results of the current year

AVT II plant crop (Early) was conducted with four entries and three standards in all the five locations of this zone. CoV 16356 with 14.83 t/ha CCS yield was the best entry followed by CoA 16321 (14.13 t/ha) in comparison with the standards CoOr 03151 and CoA 92081 that recorded 13.47 and 13.28 t/ha sugar yield respectively. CoV 16356 recorded 11.72 % improvement for sugar yield over the standard CoA 92081. The entries CoC 16337 (117.75 t/ha) and CoV 16356 (118.82 t/ha) were found to be superior for cane yield over the standard CoA 92081 (111.48 t/ha) across locations. No entry recorded more than 10 % improvement over the best standard for cane yield. CoC 01061 was the best standard in this trial that recorded the highest CCS of 12.36 % and juice sucrose of 17.75 %. CoA 16321 and CoV 16356 were superior to standards CoC 01061 and CoA 92081. CoA 16321 recorded the maximum juice sucrose of 18.00 % across locations and recorded more than 5 % improvement for quality over the standard CoA 92081. Details are presented in Tables 3.1.1 to 3.1.20.

**Table 3.1.1 CCS (t/ha) at harvest**

| S. No | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyuru      | Mean         | Rank     |
|-------|--|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1     | CoA 16321                                  | 16.85          | 16.45         | 12.39        | 10.98           | 13.99        | 14.13        | <b>2</b> |
| 2     | CoC 16336                                  | 14.80          | 17.10         | 11.71        | 12.90           | 13.15        | 13.93        | <b>3</b> |
| 3     | CoC 16337                                  | 14.28          | 17.61*        | 12.47        | 10.27           | 12.09        | 13.34        |          |
| 4     | CoV 16356                                  | 14.16          | 16.78         | 12.62        | 14.00           | 16.60*       | 14.83        | <b>1</b> |
|       | <b>Standards</b>                           |                |               |              |                 |              |              |          |
| 1     | CoA 92081                                  | 12.47          | 14.88         | 10.96        | 14.95           | 13.12        | 13.28        |          |
| 2     | CoC 01061                                  | 13.98          | 13.87         | 11.15        | 11.23           | 13.25        | 12.70        |          |
| 3     | CoOr 03151                                 | 12.69          | 15.85         | 11.67        | 14.16           | 12.96        | 13.47        |          |
|       | <b>General mean</b>                        | <b>14.18</b>   | <b>16.08</b>  | <b>11.85</b> | <b>12.64</b>    | <b>13.59</b> | <b>13.67</b> |          |
|       | SE   | 1.05           | 0.65          | 0.31         | 0.56            | 0.57         |              |          |
|       | CD (0.05)                                  | 3.16           | 1.43          | 0.97         | 1.74            | 1.67         |              |          |
|       | CV   | 12.81          | 4.99          | 4.59         | 7.74            | 7.20         |              |          |
|       | <b>Qualifying entries at each location</b> |                |               |              |                 |              |              |          |
|       | 1  | CoA 16321      | -             | -            | -               | CoV 16356    |              |          |
|       | 2  | -              | -             | -            | -               | -            |              |          |
|       | 3  | -              | -             | -            | -               | -            |              |          |

\*Significant over the best standard

**No. of locations where an entry recorded 10 % improvement over the best standard:**

CoA 16321(1), CoV 16356 (1)

**Performance of the entries across locations:**

Three entries viz., CoV 16356, CoA 16321, CoC 16336 recorded higher CCS yield over the standards CoOr 03151 (13.47 t/ha) and CoA 92081 (13.28 t/ha) across the zone. CoV 16356 (14.83 t/ha) was the best entry in the trial that recorded 11.72 % improvement followed by CoA 16321 (14.13 t/ha) with 6.44 % improvement over the standard CoA 92081.

**Table 3.1.2 Cane yield (t/ha) at harvest**

| S. No | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyuru       | Mean          | Rank     |
|-------|--|----------------|---------------|--------------|-----------------|---------------|---------------|----------|
| 1     | CoA 16321                                  | 127.65         | 128.13        | 101.91       | 86.40           | 119.34        | 112.69        |          |
| 2     | CoC 16336                                  | 122.95         | 132.93        | 99.41        | 107.49          | 121.30        | 116.82        |          |
| 3     | CoC 16337                                  | 126.52         | 136.23*       | 104.17       | 90.35           | 131.48        | 117.75        | <b>3</b> |
| 4     | CoV 16356                                  | 117.82         | 131.10        | 103.66       | 110.33          | 131.17        | 118.82        | <b>2</b> |
|       | <b>Standards</b>                           |                |               |              |                 |               |               |          |
| 1     | CoA 92081                                  | 103.31         | 117.67        | 92.19        | 124.37          | 119.86        | 111.48        |          |
| 2     | CoC 01061                                  | 111.79         | 111.69        | 95.90        | 85.70           | 109.16        | 102.85        |          |
| 3     | CoOr 03151                                 | 115.06         | 124.05        | 100.34       | 127.67          | 128.09        | 119.04        | <b>1</b> |
|       | <b>General mean</b>                        | <b>117.87</b>  | <b>125.97</b> | <b>99.66</b> | <b>104.61</b>   | <b>122.91</b> | <b>114.20</b> |          |
|       | SE   | 8.90           | 5.03          | 2.44         | 4.44            | 5.11          |               |          |
|       | CD (0.05)                                  | 26.81          | 10.95         | 7.51         | 13.68           | 15.09         |               |          |
|       | CV   | 13.07          | 4.89          | 4.24         | 7.35            | 7.20          |               |          |
|       | <b>Qualifying entries at each location</b> |                |               |              |                 |               |               |          |
|       | 1  | CoA 16321      | CoC 16337     | -            | -               | -             |               |          |
|       | 2  | CoC 16337      | -             | -            | -               | -             |               |          |
|       | 3  | -              | -             | -            | -               | -             |               |          |

\*Significant over the best standard

**No. of locations where an entry recorded 10 % improvement over the best standard:**

CoA 16321(1), CoC 16337 (2)

**Performance of the entries across locations:**

CoV 16356 was the best entry for cane yield (118.82 t/ha) in comparison with the best standard CoOr 03151 (119.04 t/ha). However, no entry recorded more than 10 % improvement over the standards CoOr 03151 and CoA 92081 across the locations.



**Table 3.1.3 CCS % at 10<sup>th</sup> month**

| S. No | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyuru      | Mean         | Rank     |
|-------|--|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1     | CoA 16321                                  | 13.20          | 12.84         | 12.15        | 12.70           | 11.72        | 12.52        | <b>1</b> |
| 2     | CoC 16336                                  | 12.06          | 12.87         | 11.77        | 12.01           | 10.84        | 11.91        |          |
| 3     | CoC 16337                                  | 11.27          | 12.93         | 11.97        | 11.37           | 9.20         | 11.35        |          |
| 4     | CoV 16356                                  | 12.04          | 12.80         | 12.17        | 12.70           | 12.65        | 12.47        | <b>2</b> |
|       | <b>Standards</b>                           |                |               |              |                 |              |              |          |
| 1     | CoA 92081                                  | 12.05          | 12.65         | 11.89        | 12.02           | 10.95        | 11.91        |          |
| 2     | CoC 01061                                  | 12.53          | 12.42         | 11.63        | 13.09           | 12.14        | 12.36        | <b>3</b> |
| 3     | CoOr 03151                                 | 11.02          | 12.78         | 11.64        | 11.09           | 10.12        | 11.33        |          |
|       | <b>General mean</b>                        | <b>12.02</b>   | <b>12.75</b>  | <b>11.89</b> | <b>12.13</b>    | <b>11.09</b> | <b>11.98</b> |          |
|       | SE   | 0.32           | 0.13          | 0.11         | 0.15            | 0.18         |              |          |
|       | CD (0.05)                                  | 0.97           | 0.28          | 0.35         | 0.45            | 0.52         |              |          |
|       | CV   | 4.62           | 1.24          | 1.67         | 2.09            | 2.70         |              |          |
|       | <b>Qualifying entries at each location</b> |                |               |              |                 |              |              |          |
|       | 1  | CoA 16321      | -             | -            | -               | -            |              |          |
|       | 2  | -              | -             | -            | -               | -            |              |          |
|       | 3  | -              | -             | -            | -               | -            |              |          |

**No. of locations where an entry recorded 5 % improvement over the best standard:**

CoA 16321 (1)

**Performance of the entries across locations:** The entry CoA 16321 recorded the highest mean CCS % of 12.52 in comparison with the best standard CoC 01061 (12.36). CoA 16321 recorded more than 5 % improvement for CCS % over the standard CoA 92081 across the locations.

**Table 3.1.4 Sucrose % at 10<sup>th</sup> month**

| S. No | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyuru      | Mean         | Rank     |
|-------|--|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1     | CoA 16321                                  | 18.86          | 18.63*        | 17.60        | 18.02           | 16.89        | 18.00        | <b>1</b> |
| 2     | CoC 16336                                  | 17.32          | 18.58*        | 17.23        | 17.16           | 16.01        | 17.26        |          |
| 3     | CoC 16337                                  | 16.13          | 18.54         | 17.48        | 16.24           | 13.79        | 16.44        |          |
| 4     | CoV 16356                                  | 17.33          | 18.31         | 17.63        | 18.04           | 18.08        | 17.88        | <b>2</b> |
|       | <b>Standards</b>                           |                |               |              |                 |              |              |          |
| 1     | CoA 92081                                  | 17.31          | 18.08         | 17.33        | 17.22           | 15.69        | 17.13        |          |
| 2     | CoC 01061                                  | 17.93          | 17.80         | 17.10        | 18.44           | 17.46        | 17.75        | <b>3</b> |
| 3     | CoOr 03151                                 | 15.83          | 18.36         | 17.07        | 16.14           | 14.84        | 16.45        |          |
|       | <b>General mean</b>                        | <b>17.24</b>   | <b>18.33</b>  | <b>17.35</b> | <b>17.32</b>    | <b>16.11</b> | <b>17.27</b> |          |
|       | SE   | 0.45           | 0.10          | 0.12         | 0.21            | 0.23         |              |          |
|       | CD (0.05)                                  | 1.38           | 0.21          | 0.37         | 0.64            | 0.68         |              |          |
|       | CV   | 4.61           | 0.64          | 1.21         | 2.07            | 2.50         |              |          |
|       | <b>Qualifying entries at each location</b> |                |               |              |                 |              |              |          |
|       | 1  | CoA 16321      | -             | -            | -               | -            |              |          |
|       | 2  | -              | -             | -            | -               | -            |              |          |
|       | 3  | -              | -             | -            | -               | -            |              |          |

\*Significant over the best standard

**No. of locations where an entry recorded 5 % improvement over the best standard:**

CoA 16321 (1)

**Performance of the entries across locations:** The entry CoA 16321 recorded the highest sucrose content of 18.00 % across locations while the best standard CoC 01061 recorded 17.75 % followed by the standard CoA 92081 (17.13%). The entry CoA 16321 recorded more than 5 % improvement over the standard CoA 92081 for sucrose % across the locations.

**Table 3.1.5 Brix % at 10<sup>th</sup> month**

| S. No | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | CoA 16321           | 20.35        | 21.24        | 20.00        | 19.58        | 18.97        | 20.03        |
| 2     | CoC 16336           | 19.33        | 20.96        | 19.99        | 18.95        | 18.89        | 19.62        |
| 3     | CoC 16337           | 17.87        | 20.61        | 20.18        | 17.89        | 16.78        | 18.67        |
| 4     | CoV 16356           | 19.44        | 20.25        | 20.00        | 19.65        | 19.95        | 19.86        |
|       | <b>Standards</b>    |              |              |              |              |              |              |
| 1     | CoA 92081           | 19.30        | 19.96        | 19.93        | 19.10        | 17.44        | 19.15        |
| 2     | CoC 01061           | 19.87        | 19.76        | 20.00        | 19.71        | 19.53        | 19.77        |
| 3     | CoOr 03151          | 17.64        | 20.49        | 19.98        | 18.49        | 17.30        | 18.78        |
|       | <b>General mean</b> | <b>19.11</b> | <b>20.47</b> | <b>20.00</b> | <b>19.07</b> | <b>18.41</b> | <b>19.41</b> |
|       | SE                  | 0.52         | 0.25         | 0.08         | 0.34         | 0.27         |              |
|       | CD (0.05)           | 1.57         | 0.55         | NS           | 1.04         | 0.80         |              |
|       | CV                  | 4.74         | 1.51         | 0.68         | 0.30         | 2.60         |              |

**Table 3.1.6 Purity % at 10<sup>th</sup> month**

| S. No | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | CoA 16321           | 92.67        | 87.72        | 88.00        | 92.02        | 89.04        | 89.89        |
| 2     | CoC 16336           | 89.60        | 88.64        | 86.18        | 90.58        | 84.72        | 87.94        |
| 3     | CoC 16337           | 90.34        | 90.00        | 86.62        | 90.80        | 82.20        | 87.99        |
| 4     | CoV 16356           | 89.17        | 90.44        | 88.13        | 91.80        | 90.63        | 90.03        |
|       | <b>Standards</b>    |              |              |              |              |              |              |
| 1     | CoA 92081           | 89.67        | 90.59        | 86.92        | 90.13        | 89.98        | 89.46        |
| 2     | CoC 01061           | 90.27        | 90.08        | 85.48        | 93.55        | 89.40        | 89.76        |
| 3     | CoOr 03151          | 89.70        | 89.60        | 85.83        | 87.27        | 85.80        | 87.64        |
|       | <b>General mean</b> | <b>90.20</b> | <b>89.58</b> | <b>86.74</b> | <b>90.87</b> | <b>87.40</b> | <b>88.96</b> |
|       | SE                  | 0.70         | 1.25         | 0.54         | 0.22         | 0.80         |              |
|       | CD (0.05)           | 2.10         | 2.73         | 1.67         | 0.68         | 2.37         |              |
|       | CV                  | 1.34         | 1.71         | 1.08         | 0.42         | 1.60         |              |

**Table 3.1.7 Pol % cane at harvest**

| S. No | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1     | CoA 16321           | 18.62        | 14.31        | 13.38        | 13.85        | -       | 15.04        |
| 2     | CoC 16336           | 17.11        | 14.28        | 13.16        | 13.32        | -       | 14.47        |
| 3     | CoC 16337           | 15.87        | 14.23        | 13.48        | 12.53        | -       | 14.03        |
| 4     | CoV 16356           | 17.08        | 14.08        | 13.54        | 13.81        | -       | 14.63        |
|       | <b>Standards</b>    |              |              |              |              |         |              |
| 1     | CoA 92081           | 17.05        | 13.97        | 13.22        | 13.38        | -       | 14.41        |
| 2     | CoC 01061           | 17.64        | 13.74        | 13.20        | 14.17        | -       | 14.69        |
| 3     | CoOr 03151          | 15.54        | 14.13        | 13.06        | 12.40        | -       | 13.78        |
|       | <b>General mean</b> | <b>16.99</b> | <b>14.11</b> | <b>13.29</b> | <b>13.34</b> |         | <b>14.43</b> |
|       | SE                  | 0.45         | 0.07         | 0.10         | 0.15         |         |              |
|       | CD (0.05)           | 1.37         | 0.15         | 0.30         | 0.47         |         |              |
|       | CV                  | 4.66         | 0.59         | 1.27         | 1.98         |         |              |

**Table 3.1.8 Extraction % at harvest**

| S. No | Entry               | Anakapalle   | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1     | CoA 16321           | 59.24        | 61.44        | 52.93        | 50.67        | -       | 56.07        |
| 2     | CoC 16336           | 57.85        | 65.13        | 53.76        | 52.20        | -       | 57.24        |
| 3     | CoC 16337           | 55.26        | 65.25        | 52.10        | 53.33        | -       | 56.49        |
| 4     | CoV 16356           | 53.38        | 62.06        | 52.12        | 50.33        | -       | 54.47        |
|       | <b>Standards</b>    |              |              |              |              |         |              |
| 1     | CoA 92081           | 59.09        | 60.05        | 52.01        | 50.67        | -       | 55.46        |
| 2     | CoC 01061           | 49.18        | 60.90        | 51.93        | 50.00        | -       | 53.00        |
| 3     | CoOr 03151          | 52.61        | 61.53        | 52.81        | 52.00        | -       | 54.74        |
|       | <b>General mean</b> | <b>55.23</b> | <b>62.34</b> | <b>52.38</b> | <b>51.31</b> |         | <b>55.32</b> |
|       | SE                  | 2.87         | 3.21         | 0.14         | 2.05         |         |              |
|       | CD (0.05)           | 8.65         | 6.99         | 4.40         | 6.33         |         |              |
|       | CV                  | 9.01         | 6.30         | 0.47         | 6.93         |         |              |

**Table 3.1.9 Fibre % at harvest**

| S. No | Entry               | Anakapalle   | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1     | CoA 16321           | 13.23        | 13.21        | 13.98        | 13.15        | -       | 13.39        |
| 2     | CoC 16336           | 10.93        | 13.12        | 13.64        | 12.42        | -       | 12.53        |
| 3     | CoC 16337           | 16.03        | 13.23        | 12.88        | 12.87        | -       | 13.75        |
| 4     | CoV 16356           | 14.93        | 13.07        | 13.17        | 13.45        | -       | 13.66        |
|       | <b>Standards</b>    |              |              |              |              |         |              |
| 1     | CoA 92081           | 15.70        | 12.74        | 13.71        | 12.30        | -       | 13.61        |
| 2     | CoC 01061           | 19.47        | 12.80        | 12.82        | 13.13        | -       | 14.56        |
| 3     | CoOr 03151          | 18.20        | 13.04        | 13.47        | 13.17        | -       | 14.47        |
|       | <b>General mean</b> | <b>15.50</b> | <b>13.03</b> | <b>13.38</b> | <b>12.92</b> |         | <b>13.71</b> |
|       | SE                  | 0.36         | 0.17         | 0.12         | 0.20         |         |              |
|       | CD (0.05)           | 1.09         | 0.37         | 0.36         | 0.63         |         |              |
|       | CV                  | 4.04         | 1.61         | 1.50         | 2.74         |         |              |

**Table 3.1.10 NMC ('000/ha) at harvest**

| S. No | Entry               | Anakapalle    | Cuddalore     | Naya garh     | Nelli kuppam  | Vuyyuru      | Mean          |
|-------|---------------------|---------------|---------------|---------------|---------------|--------------|---------------|
| 1     | CoA 16321           | 120.37        | 118.29        | 105.16        | 102.33        | 70.06        | 103.24        |
| 2     | CoC 16336           | 115.43        | 125.39        | 103.28        | 117.33        | 70.58        | 106.40        |
| 3     | CoC 16337           | 117.28        | 121.52        | 102.64        | 114.28        | 76.54        | 106.45        |
| 4     | CoV 16356           | 110.62        | 116.26        | 109.44        | 138.67        | 70.27        | 109.05        |
|       | <b>Standards</b>    |               |               |               |               |              |               |
| 1     | CoA 92081           | 114.07        | 111.69        | 109.77        | 118.33        | 80.56        | 106.88        |
| 2     | CoC 01061           | 127.65        | 114.92        | 111.89        | 130.56        | 87.14        | 114.43        |
| 3     | CoOr 03151          | 110.86        | 112.35        | 116.84        | 135.00        | 78.40        | 110.69        |
|       | <b>General mean</b> | <b>116.61</b> | <b>117.20</b> | <b>108.43</b> | <b>122.35</b> | <b>76.22</b> | <b>108.16</b> |
|       | SE                  | 8.20          | 3.40          | 2.11          | 6.44          | 4.83         |               |
|       | CD (0.05)           | 24.73         | 7.40          | 6.51          | 19.83         | 14.25        |               |
|       | CV                  | 12.18         | 3.55          | 3.38          | 9.11          | 11.00        |               |

**Table 3.1.11 Stalk length (cm) at harvest**

| S. No | Entry               | Anaka palle   | Cuddalore     | Naya garh     | Nelli kuppam  | Vuyyuru       | Mean          |
|-------|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1     | CoA 16321           | 226.00        | 241.00        | 305.30        | 208.00        | 267.10        | 249.48        |
| 2     | CoC 16336           | 250.67        | 256.00        | 324.00        | 217.33        | 331.00        | 275.80        |
| 3     | CoC 16337           | 238.67        | 251.00        | 305.30        | 226.00        | 262.50        | 256.69        |
| 4     | CoV 16356           | 215.00        | 229.00        | 293.00        | 224.33        | 305.40        | 253.35        |
|       | <b>Standards</b>    |               |               |               |               |               |               |
| 1     | CoA 92081           | 271.33        | 226.00        | 338.70        | 235.33        | 321.30        | 278.53        |
| 2     | CoC 01061           | 241.67        | 232.00        | 307.00        | 233.33        | 289.20        | 260.64        |
| 3     | CoOr 03151          | 245.00        | 231.00        | 294.00        | 273.33        | 318.40        | 272.35        |
|       | <b>General mean</b> | <b>241.19</b> | <b>238.05</b> | <b>309.60</b> | <b>231.09</b> | <b>299.30</b> | <b>263.85</b> |
|       | SE                  | 7.14          | 6.34          | 9.36          | 11.47         | 13.21         |               |
|       | CD (0.05)           | 21.50         | 13.81         | 28.85         | 35.35         | 38.96         |               |
|       | CV                  | 5.124         | 3.26          | 5.24          | 8.60          | 7.60          |               |

**Table 3.1.12 Stalk diameter (cm) at harvest**

| S. No | Entry               | Anaka palle | Cuddalore   | Naya garh   | Nelli kuppam | Vuyyuru     | Mean        |
|-------|---------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| 1     | CoA 16321           | 2.22        | 3.10        | 2.61        | 2.83         | 2.79        | 2.71        |
| 2     | CoC 16336           | 1.92        | 3.23        | 2.43        | 2.83         | 2.69        | 2.62        |
| 3     | CoC 16337           | 1.80        | 3.34        | 2.73        | 2.43         | 3.00        | 2.66        |
| 4     | CoV 16356           | 2.23        | 3.09        | 2.99        | 2.67         | 3.02        | 2.80        |
|       | <b>Standards</b>    |             |             |             |              |             |             |
| 1     | CoA 92081           | 1.60        | 2.67        | 3.22        | 2.87         | 2.65        | 2.60        |
| 2     | CoC 01061           | 2.02        | 2.70        | 2.40        | 2.17         | 2.65        | 2.39        |
| 3     | CoOr 03151          | 2.40        | 3.02        | 2.25        | 2.67         | 2.93        | 2.65        |
|       | <b>General mean</b> | <b>2.03</b> | <b>3.02</b> | <b>2.66</b> | <b>2.64</b>  | <b>2.82</b> | <b>2.63</b> |
|       | SE                  | 0.07        | 0.14        | 0.06        | 0.12         | 0.08        |             |
|       | CD (0.05)           | 0.21        | 0.31        | 0.19        | 0.36         | 0.24        |             |
|       | CV                  | 6.05        | 5.74        | 3.95        | 7.58         | 5.00        |             |

**Table 3.1.13 Single cane weight (kg) at harvest**

| S. No | Entry               | Anaka palle | Cuddalore   | Naya garh   | Nelli kuppam | Vuyyuru     | Mean        |
|-------|---------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| 1     | CoA 16321           | 1.06        | 1.36        | 1.28        | 1.12         | 1.61        | 1.29        |
| 2     | CoC 16336           | 1.07        | 1.50        | 1.47        | 1.24         | 1.63        | 1.38        |
| 3     | CoC 16337           | 1.09        | 1.49        | 1.46        | 0.89         | 2.02        | 1.39        |
| 4     | CoV 16356           | 1.07        | 1.30        | 1.24        | 1.06         | 1.98        | 1.33        |
|       | <b>Standards</b>    |             |             |             |              |             |             |
| 1     | CoA 92081           | 0.90        | 1.23        | 1.46        | 1.31         | 1.69        | 1.32        |
| 2     | CoC 01061           | 0.87        | 1.13        | 1.45        | 0.75         | 1.37        | 1.11        |
| 3     | CoOr 03151          | 1.04        | 1.27        | 1.48        | 1.40         | 2.00        | 1.44        |
|       | <b>General mean</b> | <b>1.01</b> | <b>1.32</b> | <b>1.41</b> | <b>1.11</b>  | <b>1.76</b> | <b>1.32</b> |
|       | SE                  | 0.05        | 0.07        | 0.05        | 0.77         | 0.06        |             |
|       | CD (0.05)           | 0.14        | 0.15        | 0.16        | 0.24         | 0.19        |             |
|       | CV                  | 8.01        | 6.19        | 6.41        | 12.02        | 6.20        |             |

**Table 3.1.14 CCS % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyy<br>uru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 16321           | 11.91          | 11.65         | 11.88        | 9.87            | -           | 11.33        |
| 2     | CoC 16336           | 11.53          | 11.68         | 11.55        | 9.20            | -           | 10.99        |
| 3     | CoC 16337           | 11.59          | 11.90         | 11.90        | 9.33            | -           | 11.18        |
| 4     | CoV 16356           | 11.67          | 11.30         | 11.87        | 10.84           | -           | 11.42        |
|       | <b>Standards</b>    |                |               |              |                 |             |              |
| 1     | CoA 92081           | 11.51          | 10.93         | 11.71        | 10.38           | -           | 11.13        |
| 2     | CoC 01061           | 12.86          | 10.31         | 11.47        | 10.03           | -           | 11.17        |
| 3     | CoOr 03151          | 9.93           | 11.32         | 11.45        | 9.36            | -           | 10.52        |
|       | <b>General mean</b> | <b>11.57</b>   | <b>11.30</b>  | <b>11.69</b> | <b>9.85</b>     |             | <b>11.10</b> |
|       | SE                  | 0.39           | 0.16          | 0.09         | 0.11            |             |              |
|       | CD (0.05)           | 1.18           | 0.36          | 0.29         | 0.33            |             |              |
|       | CV                  | 5.87           | 1.78          | 1.37         | 1.90            |             |              |

**Table 3.1.15 Sucrose % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyy<br>uru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 16321           | 17.32          | 16.86         | 17.30        | 14.78           | -           | 16.57        |
| 2     | CoC 16336           | 16.59          | 16.62         | 16.94        | 14.28           | -           | 16.11        |
| 3     | CoC 16337           | 16.69          | 16.76         | 17.30        | 14.08           | -           | 16.21        |
| 4     | CoV 16356           | 16.59          | 15.97         | 17.28        | 16.04           | -           | 16.47        |
|       | <b>Standards</b>    |                |               |              |                 |             |              |
| 1     | CoA 92081           | 16.63          | 15.66         | 17.10        | 15.28           | -           | 16.17        |
| 2     | CoC 01061           | 18.27          | 15.21         | 16.89        | 14.88           | -           | 16.31        |
| 3     | CoOr 03151          | 14.48          | 16.24         | 16.83        | 14.00           | -           | 15.39        |
|       | <b>General mean</b> | <b>16.65</b>   | <b>16.19</b>  | <b>17.09</b> | <b>14.76</b>    |             | <b>16.17</b> |
|       | SE                  | 0.53           | 0.16          | 0.10         | 0.16            |             |              |
|       | CD (0.05)           | 1.61           | 0.36          | 0.30         | 0.51            |             |              |
|       | CV                  | 5.54           | 1.23          | 0.98         | 1.93            |             |              |

**Table 3.1.16 Brix % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyy<br>uru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 16321           | 19.81          | 19.11         | 19.85        | 17.95           | -           | 19.18        |
| 2     | CoC 16336           | 18.57          | 18.17         | 19.73        | 18.48           | -           | 18.74        |
| 3     | CoC 16337           | 18.71          | 17.90         | 19.78        | 17.32           | -           | 18.43        |
| 4     | CoV 16356           | 18.12          | 17.20         | 19.85        | 18.99           | -           | 18.54        |
|       | <b>Standards</b>    |                |               |              |                 |             |              |
| 1     | CoA 92081           | 18.80          | 17.39         | 19.77        | 17.93           | -           | 18.47        |
| 2     | CoC 01061           | 19.89          | 17.91         | 19.82        | 17.76           | -           | 18.85        |
| 3     | CoOr 03151          | 16.67          | 18.07         | 19.69        | 16.94           | -           | 17.84        |
|       | <b>General mean</b> | <b>18.65</b>   | <b>17.96</b>  | <b>19.79</b> | <b>17.91</b>    |             | <b>18.58</b> |
|       | SE                  | 0.57           | 0.10          | 0.07         | 0.21            |             |              |
|       | CD (0.05)           | 1.71           | 0.22          | NS           | 0.65            |             |              |
|       | CV                  | 5.27           | 0.70          | 0.62         | 2.04            |             |              |

**Table 3.1.17 Purity % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 16321           | 87.37          | 88.19         | 87.15        | 82.38           | -           | 86.27        |
| 2     | CoC 16336           | 89.35          | 91.52         | 85.86        | 77.26           | -           | 86.00        |
| 3     | CoC 16337           | 89.18          | 93.64         | 87.44        | 81.26           | -           | 87.88        |
| 4     | CoV 16356           | 91.59          | 92.83         | 87.06        | 84.43           | -           | 88.98        |
|       | <b>Standards</b>    |                |               |              |                 |             |              |
| 1     | CoA 92081           | 88.52          | 90.09         | 86.48        | 85.24           | -           | 87.58        |
| 2     | CoC 01061           | 91.83          | 84.90         | 85.19        | 83.82           | -           | 86.44        |
| 3     | CoOr 03151          | 86.89          | 89.87         | 85.48        | 82.61           | -           | 86.21        |
|       | <b>General mean</b> | <b>89.25</b>   | <b>90.15</b>  | <b>86.38</b> | <b>82.42</b>    |             | <b>87.05</b> |
|       | SE                  | 0.92           | 0.96          | 0.47         | 0.21            |             |              |
|       | CD (0.05)           | 2.79           | 2.08          | 1.45         | 0.65            |             |              |
|       | CV                  | 1.79           | 1.30          | 0.94         | 0.45            |             |              |

**Table 3.1.18 Number of shoots ('000/ha) at 240 days**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru  | Mean          |
|-------|---------------------|----------------|---------------|---------------|-----------------|--------------|---------------|
| 1     | CoA 16321           | 108.18         | 124.08        | 109.81        | 129.67          | 77.47        | 109.84        |
| 2     | CoC 16336           | 106.94         | 131.18        | 110.97        | 151.96          | 84.88        | 117.19        |
| 3     | CoC 16337           | 126.79         | 127.31        | 110.06        | 164.03          | 79.32        | 121.50        |
| 4     | CoV 16356           | 106.02         | 122.38        | 115.52        | 167.16          | 72.74        | 116.76        |
|       | <b>Standards</b>    |                |               |               |                 |              |               |
| 1     | CoA 92081           | 120.45         | 118.81        | 115.69        | 162.69          | 85.70        | 120.67        |
| 2     | CoC 01061           | 167.98         | 122.38        | 120.92        | 154.38          | 98.25        | 132.78        |
| 3     | CoOr 03151          | 122.30         | 119.14        | 123.92        | 150.75          | 84.67        | 120.16        |
|       | <b>General mean</b> | <b>122.67</b>  | <b>123.61</b> | <b>115.27</b> | <b>154.37</b>   | <b>83.29</b> | <b>119.84</b> |
|       | SE                  | 8.36           | 3.10          | 2.02          | 6.40            | 4.97         |               |
|       | CD (0.05)           | 25.18          | 6.76          | 6.21          | 19.71           | 14.67        |               |
|       | CV                  | 11.80          | 3.08          | 3.03          | 7.18            | 10.30        |               |

**Table 3.1.19 Number of tillers ('000/ha) at 120 days**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru   | Mean          |
|-------|---------------------|----------------|---------------|---------------|-----------------|---------------|---------------|
| 1     | CoA 16321           | 125.19         | 129.37        | 117.27        | 148.00          | 112.76        | 126.52        |
| 2     | CoC 16336           | 123.09         | 137.47        | 117.91        | 185.25          | 121.30        | 137.00        |
| 3     | CoC 16337           | 138.66         | 133.93        | 114.90        | 184.67          | 136.32        | 141.70        |
| 4     | CoV 16356           | 118.40         | 129.67        | 121.49        | 177.49          | 111.32        | 131.67        |
|       | <b>Standards</b>    |                |               |               |                 |               |               |
| 1     | CoA 92081           | 120.37         | 126.43        | 122.02        | 181.73          | 119.86        | 134.08        |
| 2     | CoC 01061           | 161.48         | 129.00        | 123.81        | 171.34          | 135.39        | 144.20        |
| 3     | CoOr 03151          | 118.89         | 126.90        | 127.47        | 175.19          | 121.30        | 133.95        |
|       | <b>General mean</b> | <b>129.44</b>  | <b>130.40</b> | <b>120.70</b> | <b>174.81</b>   | <b>122.60</b> | <b>135.59</b> |
|       | SE                  | 6.30           | 2.73          | 2.18          | 8.91            | 7.24          |               |
|       | CD (0.05)           | 19.00          | 8.42          | 6.72          | 27.46           | 21.35         |               |
|       | CV                  | 8.43           | 3.63          | 3.13          | 8.83            | 10.20         |               |

**Table 3.1.20 Germination % at 30 days**

| S. No | Entry               | Anakapalle   | Cuddalore    | Nayagarh     | Nellikuppam  | Vuyyuru      | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | CoA 16321           | 66.36        | 67.30        | 59.26        | 76.33        | 66.98        | 67.25        |
| 2     | CoC 16336           | 50.60        | 72.77        | 70.83        | 84.74        | 59.03        | 67.59        |
| 3     | CoC 16337           | 69.64        | 74.47        | 53.27        | 83.00        | 66.74        | 69.42        |
| 4     | CoV 16356           | 63.79        | 69.93        | 65.11        | 86.69        | 58.18        | 68.74        |
|       | <b>Standards</b>    |              |              |              |              |              |              |
| 1     | CoA 92081           | 64.43        | 66.50        | 51.95        | 86.57        | 57.64        | 65.42        |
| 2     | CoC 01061           | 65.46        | 71.73        | 68.37        | 74.67        | 59.41        | 67.93        |
| 3     | CoOr 03151          | 63.08        | 66.63        | 66.15        | 74.67        | 58.02        | 65.71        |
|       | <b>General mean</b> | <b>63.34</b> | <b>69.90</b> | <b>62.14</b> | <b>80.95</b> | <b>60.86</b> | <b>67.44</b> |
|       | SE                  | 1.94         | 3.74         | 2.58         | 3.82         | 2.74         |              |
|       | CD (0.05)           | 5.83         | 8.14         | 7.95         | 11.78        | 8.07         |              |
|       | CV                  | 5.29         | 6.54         | 7.19         | 8.18         | 7.80         |              |

**Table 3.1.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| Entries          | Nellikuppam | Cuddalore | Vuyyuru | Anakapalle | Nayagarh |
|------------------|-------------|-----------|---------|------------|----------|
| CoA 16321        | Better      | On par    | On par  | Better     | Better   |
| CoC 16336        | Better      | On par    | On par  | Better     | Better   |
| CoC 16337        | On par      | Better    | On par  | On par     | On par   |
| CoV 16356        | On par      | On par    | On par  | On par     | On par   |
| <b>Standards</b> |             |           |         |            |          |
| CoA 92081        | Better      | Better    | On par  | Better     | On par   |
| CoC 01061        | On par      | On par    | Better  | On par     | Better   |
| CoOr 03151       | Best        | Best      | Best    | Best       | Best     |



### 3.2 ADVANCED VARIETAL TRIAL (EARLY) – RATOON

|                |  |
|----------------|--|
| Centres (5)    | Anakapalle, Cuddalore, Nayagarh, Nellikuppam and Vuyyuru |
| Entries (4)    | CoA 16321, CoC 16336, CoC 16337 and CoV 16356            |
| Standards (3)  | CoA 92081, CoC 01061 and CoOr 03151                      |
| Design         | Randomized Block Design                                  |
| Replications   | Three  |
| Plot size      | Gross : 6.0 m x 8R x 0.90 m<br>Net : 5.0 m x 6R x 0.90 m |
| Ratooning time | Immediately after the harvest of I Plant crop            |
| Crop duration  | 9 months   |

#### Results of the previous year

AVT I plant crop was conducted in all five centres in the zone. Three test entries (CoV 16356, CoA 16321, CoC 16337) recorded higher CCS yield over the best standard CoA 92081 (12.76 t/ha) across locations. CoV 16356 (13.75 t/ha) was the best entry in the trial with 7.74 % improvement over the standard CoA 92081. However, no entry recorded more than 10% improvement for CCS yield over the best standard CoA 92081 across the locations. CoC 16337 was the best entry for cane yield (115.28 t/ha) which recorded 3.27 % improvement over the better standard CoOr 03151 (111.62 t/ha). None of the entries recorded more than 10 % improvement for cane yield over the best standard CoOr 03151 across locations. CoV 16356 recorded the highest mean CCS % of 12.40 and 17.70 % juice sucrose while the best standard CoA 92081 recorded 12.17 % and 17.41 % sucrose respectively. No entry recorded more than 5 % improvement for CCS % and juice sucrose % over the best standard CoA 92081 across the zone. No qualifying entry for cane yield and juice quality could be identified from this trial.

#### Results of the current year

AVT Ratoon (Early) was conducted with four entries and three standards in all the five centres. CoA 16321 was the best entry for CCS yield (12.73 t/ha) with 10.69 % improvement while the best standard CoA 92081 recorded 11.50 t/ha. The standard CoA 92081 was the best in this trial that recorded the highest cane yield of 104.53 t/ha. The entries CoC 16337 (111.03 t/ha) and CoA 16321 (109.26 t/ha) were found numerically superior to CoA 92081 for cane yield across the zone. None of the entries recorded more than 10 % improvement for cane yield over the best standard CoA 92081. The standard CoC 01061 recorded the maximum CCS % (11.85) and juice sucrose of 17.08 % across locations followed by CoA 92081 with CCS of 11.01 % and juice sucrose of 15.98 %. The entries CoA 16321, CoC 16336 and CoV 16356 recorded more than 5 % improvement for quality to the standard CoA 92081. No qualifying entry for cane yield and juice quality could be identified from this trial. Further details are presented in tables 3.2.1 to 3.2.15.

**Table 3.2.1 CCS (t/ha) at harvest**

| S. No                               | Entry             | Anaka palle  | Cuddalore    | Naya garh   | Nelli kuppam | Vuyyuru      | Mean         | Rank     |
|-------------------------------------|-------------------|--------------|--------------|-------------|--------------|--------------|--------------|----------|
| 1                                   | CoA 16321         | 14.97        | 15.48        | 9.40        | 11.83        | 11.98        | <b>12.73</b> | <b>1</b> |
| 2                                   | CoC 16336         | 8.79         | 16.28        | 9.74        | 8.33         | 14.17        | <b>11.46</b> |          |
| 3                                   | CoC 16337         | 13.35        | 16.69*       | 9.34        | 10.96        | 11.98        | <b>11.41</b> |          |
| 4                                   | CoV 16356         | 13.74        | 15.84        | 8.57        | 8.80         | 13.21        | <b>12.03</b> | <b>2</b> |
|                                     | <b>Standards</b>  |              |              |             |              |              |              |          |
| 1                                   | CoA 92081         | 13.35        | 13.81        | 9.34        | 11.72        | 9.29         | <b>11.50</b> | <b>3</b> |
| 2                                   | CoC 01061         | 13.90        | 13.09        | 7.72        | 8.30         | 12.56        | <b>11.11</b> |          |
| 3                                   | CoOr 03151        | 9.94         | 14.59        | 9.01        | 8.90         | 12.76        | <b>11.04</b> |          |
|                                     | <b>Grand mean</b> | <b>12.58</b> | <b>15.11</b> | <b>9.02</b> | <b>9.83</b>  | <b>12.28</b> | <b>11.76</b> |          |
|                                     | SE                | 1.15         | 0.83         | 0.36        | 0.75         | 0.54         |              |          |
|                                     | CD (0.05)         | 3.45         | 1.80         | 1.12        | 2.30         | 1.59         |              |          |
|                                     | CV                | 15.78        | 6.70         | 6.96        | 13.20        | 7.60         |              |          |
| Qualifying entries at each location |                   |              |              |             |              |              |              |          |
|                                     | 1                 | -            | CoC 16336    | -           | -            | CoC 16336    |              |          |
|                                     | 2                 | -            | CoC 16337    | -           | -            | -            |              |          |
|                                     | 3                 | -            | -            | -           | -            | -            |              |          |

\*Significant over the best standard

**No. of locations where an entry recorded 10 % improvement over the best standard:**  
CoC 16336(2) and CoC 16337 (1)

**Performance of the entries across locations:** The entries *viz.*, CoA 16321 (12.73 t/ha) and CoV 16356 (12.03 t/ha) recorded higher CCS yield over the better standard CoA 92081 (11.50 t/ha) across locations. Among the three entries, CoA 16321 (12.73 t/ha) was the best in the trial that recorded 10.69 % improvement over the standard CoA 92081.

**Table 3.2.2 Cane yield (t/ha) at harvest**

| S. No | Entry             | Anakapalle    | Cuddalore     | Nayagarh     | Nellikuppam  | Vuyyuru       | Mean          | Rank     |
|-------|-------------------|---------------|---------------|--------------|--------------|---------------|---------------|----------|
| 1     | CoA 16321         | 121.58        | 121.90        | 79.36        | 117.82       | 105.66        | <b>109.26</b> | <b>2</b> |
| 2     | CoC 16336         | 75.08         | 127.70        | 83.96        | 75.80        | 125.31        | <b>97.57</b>  |          |
| 3     | CoC 16337         | 125.25        | 130.34*       | 78.94        | 108.98       | 111.63        | <b>111.03</b> | <b>1</b> |
| 4     | CoV 16356         | 121.44        | 126.87        | 71.75        | 85.13        | 109.05        | <b>102.85</b> |          |
|       | <b>Standards</b>  |               |               |              |              |               |               |          |
| 1     | CoA 92081         | 119.13        | 112.78        | 80.31        | 105.89       | 104.53        | <b>104.53</b> | <b>3</b> |
| 2     | CoC 01061         | 119.05        | 107.46        | 67.34        | 74.40        | 100.31        | <b>93.71</b>  |          |
| 3     | CoOr 03151        | 96.40         | 117.49        | 78.36        | 103.15       | 115.12        | <b>102.10</b> |          |
|       | <b>Grand mean</b> | <b>111.13</b> | <b>120.65</b> | <b>77.14</b> | <b>95.88</b> | <b>110.23</b> | <b>103.01</b> |          |
|       | SE                | 9.85          | 4.92          | 2.89         | 7.29         | 4.91          |               |          |
|       | CD (0.05)         | 29.68         | 10.71         | 8.89         | 22.45        | 14.49         |               |          |
|       | CV                | 15.35         | 4.99          | 6.48         | 13.16        | 7.70          |               |          |
|       |                   |               |               |              |              |               |               |          |
|       | 1                 | -             | CoC 16337     | -            | CoA 16321    | CoC 16336     |               |          |
|       | 2                 | -             | -             | -            | -            | -             |               |          |
|       | 3                 | -             | -             | -            | -            | -             |               |          |

\*Significant over the best standard

**No. of locations where an entry recorded 10 % improvement over the best standard:**

CoA 16321(1), CoC 16337 (1), CoC 16336 (1)

**Performance of the entries across locations:** CoC 16337 was the best entry for cane yield (111.03 t/ha) which recorded 6.22 % improvement over the best standard CoA 92081 (104.53 t/ha). The next best entry was CoA 16321 (109.26 t/ha) which showed 4.53 % improvement. None of the entries recorded more than 10 % improvement over the best standard CoA 92081(104.53 t/ha) across locations.

**Table 3.2.3 CCS % at 9<sup>th</sup> month**

| S. No | Entry             | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyy<br>uru  | Mean         | Rank     |
|-------|-------------------|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1     | CoA 16321         | 12.31          | 12.70         | 11.84        | 10.04           | 11.34        | <b>11.65</b> | <b>2</b> |
| 2     | CoC 16336         | 11.62          | 12.74         | 11.61        | 10.98           | 11.31        | <b>11.65</b> | <b>2</b> |
| 3     | CoC 16337         | 10.65          | 12.79         | 11.83        | 10.05           | 10.73        | <b>11.21</b> |          |
| 4     | CoV 16356         | 11.31          | 12.48         | 11.95        | 10.36           | 12.12        | <b>11.64</b> | <b>3</b> |
|       | <b>Standards</b>  |                |               |              |                 |              |              |          |
| 1     | CoA 92081         | 11.21          | 12.23         | 11.63        | 11.08           | 8.89         | <b>11.01</b> |          |
| 2     | CoC 01061         | 11.68          | 12.17         | 11.72        | 11.14           | 12.52        | <b>11.85</b> | <b>1</b> |
| 3     | CoOr 03151        | 10.29          | 12.42         | 11.50        | 8.60            | 11.08        | <b>10.78</b> |          |
|       | <b>Grand mean</b> | <b>11.30</b>   | <b>12.50</b>  | <b>11.72</b> | <b>10.31</b>    | <b>11.14</b> | <b>11.39</b> |          |
|       | SE                | 0.21           | 0.22          | 0.09         | 0.15            | 0.08         |              |          |
|       | CD (0.05)         | 0.62           | 0.47          | 0.26         | 0.46            | 0.24         |              |          |
|       | CV                | 3.17           | 2.13          | 1.26         | 2.49            | 1.30         |              |          |
|       |                   |                |               |              |                 |              |              |          |
|       | 1                 | CoA<br>16321   | -             | -            | -               | -            |              |          |
|       | 2                 | -              | -             | -            | -               | -            |              |          |
|       | 3                 | -              | -             | -            | -               | -            |              |          |

**No. of locations where an entry recorded 5 % improvement over the best standard:**

CoA 16321 (1)

**Performance of the entries across locations:**

Two entries CoA 16321 and CoC 16336 recorded the highest mean CCS % of 11.65 while the best standard CoC 01061 recorded 11.85 %. The entries CoA 16321, CoC 16336 and CoV 16356 recorded more than 5 % improvement for CCS % over the standard CoA 92081 across the zone.

**Table 3.2.4 Sucrose % at 9<sup>th</sup> month**

| S. No | Entry             | Anakapalle   | Cuddalore    | Naya garh    | Nellikuppam  | Vuyyuru      | Mean         | Rank     |
|-------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------|
| 1     | CoA 16321         | 17.71*       | 18.24*       | 17.31        | 14.68        | 16.04        | <b>16.80</b> |          |
| 2     | CoC 16336         | 16.76        | 18.11        | 17.04        | 16.06        | 16.30        | <b>16.85</b> | <b>2</b> |
| 3     | CoC 16337         | 15.47        | 18.08        | 17.32        | 14.56        | 15.17        | <b>16.12</b> |          |
| 4     | CoV 16356         | 16.37        | 17.64        | 17.41*       | 15.30        | 17.34*       | <b>16.81</b> | <b>3</b> |
|       | <b>Standards</b>  |              |              |              |              |              |              |          |
| 1     | CoA 92081         | 16.23        | 17.39        | 17.08        | 16.19        | 13.02        | <b>15.98</b> |          |
| 2     | CoC 01061         | 16.82        | 17.43        | 17.17        | 16.13        | 17.84        | <b>17.08</b> | <b>1</b> |
| 3     | CoOr 03151        | 14.88        | 17.71        | 16.92        | 12.97        | 16.03        | <b>15.70</b> |          |
|       | <b>Grand mean</b> | <b>16.32</b> | <b>17.80</b> | <b>17.18</b> | <b>15.13</b> | <b>15.96</b> | <b>16.48</b> |          |
|       | SE                | 0.28         | 0.23         | 0.09         | 0.23         | 0.11         |              |          |
|       | CD (0.05)         | 0.85         | 0.50         | 0.27         | 0.71         | 0.32         |              |          |
|       | CV                | 2.98         | 1.57         | 0.89         | 2.63         | 1.20         |              |          |
|       |                   |              |              |              |              |              |              |          |
|       | 1                 | CoA 16321    | -            | -            | -            | -            |              |          |
|       | 2                 | -            | -            | -            | -            | -            |              |          |
|       | 3                 | -            | -            | -            | -            | -            |              |          |

\*Significant over the best standard

**No. of locations where an entry recorded 5 % improvement over the best standard:**

CoA 16321 (1)

**Performance of the entries across locations:**

The entry CoC 16336 recorded the highest sucrose content of 16.85 % and ranked second across locations while the best standard CoC 01061 ranked first and recorded 17.08 % juice sucrose. However the entries CoA 16321, CoC 16336 and CoV 16356 recorded more than 5 % improvement for sucrose % over the next best standard CoA 92081 across the zone.

**Table 3.2.5 Brix % at 9<sup>th</sup> month**

| S. No | Entry             | Anaka palle  | Cuddalore    | Naya garh    | Nellikuppam  | Vuyyuru      | Mean         |
|-------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | CoA 16321         | 19.83        | 20.35        | 20.06        | 16.98        | 17.31        | <b>18.91</b> |
| 2     | CoC 16336         | 18.85        | 19.74        | 19.90        | 18.61        | 18.34        | <b>19.09</b> |
| 3     | CoC 16337         | 17.67        | 19.47        | 20.11        | 16.53        | 16.34        | <b>18.02</b> |
| 4     | CoV 16356         | 18.55        | 19.01        | 20.01        | 18.10        | 19.21        | <b>18.98</b> |
|       | <b>Standards</b>  |              |              |              |              |              |              |
| 1     | CoA 92081         | 18.40        | 18.96        | 19.98        | 18.74        | 15.15        | <b>18.25</b> |
| 2     | CoC 01061         | 18.87        | 19.35        | 19.97        | 18.31        | 19.54        | <b>19.21</b> |
| 3     | CoOr 03151        | 16.86        | 19.47        | 19.84        | 15.96        | 18.13        | <b>18.05</b> |
|       | <b>Grand mean</b> | <b>18.43</b> | <b>19.47</b> | <b>19.98</b> | <b>17.65</b> | <b>17.72</b> | <b>18.65</b> |
|       | SE                | 0.30         | 0.23         | 0.07         | 0.26         | 0.18         |              |
|       | CD (0.05)         | 0.92         | 0.51         | NS           | 0.79         | 0.52         |              |
|       | CV                | 2.86         | 1.46         | 0.62         | 2.53         | 1.70         |              |

**Table 3.2.6 Purity % at 9<sup>th</sup> month**

| S. No | Entry             | Anaka palle  | Cuddalore    | Naya garh    | Nellikuppam  | Vuyyuru      | Mean         |
|-------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | CoA 16321         | 91.02        | 89.71        | 86.33        | 86.42        | 92.66        | <b>89.23</b> |
| 2     | CoC 16336         | 89.17        | 91.76        | 85.65        | 86.31        | 88.91        | <b>88.36</b> |
| 3     | CoC 16337         | 94.14        | 92.87        | 86.13        | 88.07        | 92.82        | <b>90.81</b> |
| 4     | CoV 16356         | 93.45        | 92.83        | 86.98        | 84.57        | 90.30        | <b>89.63</b> |
|       | <b>Standards</b>  |              |              |              |              |              |              |
| 1     | CoA 92081         | 90.67        | 91.76        | 85.52        | 86.41        | 85.98        | <b>88.07</b> |
| 2     | CoC 01061         | 88.63        | 90.19        | 85.98        | 88.08        | 91.28        | <b>88.83</b> |
| 3     | CoOr 03151        | 94.72        | 91.03        | 85.28        | 81.29        | 88.38        | <b>88.14</b> |
|       | <b>Grand mean</b> | <b>91.69</b> | <b>91.45</b> | <b>85.98</b> | <b>85.88</b> | <b>90.05</b> | <b>89.01</b> |
|       | SE                | 2.07         | 1.28         | 0.44         | 0.37         | 0.67         |              |
|       | CD (0.05)         | 6.25         | 2.78         | NS           | 1.15         | 1.97         |              |
|       | CV                | 3.92         | 1.71         | 0.89         | 0.75         | 1.30         |              |

**Table 3.2.7 Pol % cane at harvest**

| S. No | Entry             | Anakapalle   | Cuddalore    | Naya garh    | Nellikuppam  | Vuyyuru | Mean         |
|-------|-------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1     | CoA 16321         | 13.55        | 14.03        | 13.21        | 11.33        | -       | <b>13.03</b> |
| 2     | CoC 16336         | 13.13        | 13.95        | 12.96        | 12.57        | -       | <b>13.15</b> |
| 3     | CoC 16337         | 11.45        | 13.90        | 13.36        | 11.26        | -       | <b>12.49</b> |
| 4     | CoV 16356         | 12.37        | 13.59        | 13.41        | 11.82        | -       | <b>12.80</b> |
|       | <b>Standards</b>  |              |              |              |              |         |              |
| 1     | CoA 92081         | 11.95        | 13.41        | 13.00        | 12.65        | -       | <b>12.75</b> |
| 2     | CoC 01061         | 11.98        | 13.45        | 13.23        | 12.47        | -       | <b>12.78</b> |
| 3     | CoOr 03151        | 10.72        | 13.65        | 12.96        | 10.05        | -       | <b>11.85</b> |
|       | <b>Grand mean</b> | <b>12.16</b> | <b>13.71</b> | <b>13.16</b> | <b>11.73</b> | -       | <b>12.69</b> |
|       | SE                | 0.25         | 0.17         | 0.07         | 0.16         | -       |              |
|       | CD (0.05)         | 0.75         | 0.37         | 0.23         | 0.50         | -       |              |
|       | CV                | 3.55         | 1.53         | 0.97         | 2.40         | -       |              |

**Table 3.2.8 Extraction % at harvest**

| S. No | Entry             | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|-------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 16321         | 58.48          | 60.70         | 52.01        | 51.26           | -           | <b>55.61</b> |
| 2     | CoC 16336         | 56.81          | 62.96         | 52.86        | 49.36           | -           | <b>55.50</b> |
| 3     | CoC 16337         | 50.30          | 63.28         | 51.96        | 54.10           | -           | <b>54.91</b> |
| 4     | CoV 16356         | 56.24          | 61.34         | 52.24        | 46.46           | -           | <b>54.07</b> |
|       | <b>Standards</b>  |                |               |              |                 |             |              |
| 1     | CoA 92081         | 56.46          | 61.65         | 52.04        | 50.74           | -           | <b>55.22</b> |
| 2     | CoC 01061         | 54.32          | 59.42         | 51.35        | 53.02           | -           | <b>54.53</b> |
| 3     | CoOr 03151        | 58.77          | 58.72         | 52.70        | 52.07           | -           | <b>55.57</b> |
|       | <b>Grand mean</b> | <b>55.91</b>   | <b>61.15</b>  | <b>52.16</b> | <b>51.00</b>    | -           | <b>55.06</b> |
|       | SE                | 0.96           | 3.39          | 0.14         | 1.55            | -           |              |
|       | CD (0.05)         | 2.90           | 7.39          | 0.44         | 4.76            | -           |              |
|       | CV                | 2.98           | 6.79          | 0.48         | 5.25            | -           |              |

**Table 3.2.9 Fibre % at harvest**

| S. No | Entry             | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|-------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 16321         | 13.53          | 13.05         | 13.69        | 12.77           | -           | <b>13.26</b> |
| 2     | CoC 16336         | 11.70          | 12.98         | 13.96        | 11.71           | -           | <b>12.59</b> |
| 3     | CoC 16337         | 16.03          | 13.09         | 12.90        | 12.70           | -           | <b>13.68</b> |
| 4     | CoV 16356         | 14.43          | 12.98         | 12.93        | 12.78           | -           | <b>13.28</b> |
|       | <b>Standards</b>  |                |               |              |                 |             |              |
| 1     | CoA 92081         | 16.34          | 12.88         | 13.87        | 11.90           | -           | <b>13.75</b> |
| 2     | CoC 01061         | 18.78          | 12.87         | 12.92        | 12.70           | -           | <b>14.32</b> |
| 3     | CoOr 03151        | 17.94          | 12.94         | 13.42        | 12.56           | -           | <b>14.22</b> |
|       | <b>Grand mean</b> | <b>15.54</b>   | <b>12.97</b>  | <b>13.38</b> | <b>12.44</b>    | -           | <b>13.58</b> |
|       | SE                | 0.43           | 0.14          | 0.12         | 0.18            | -           |              |
|       | CD (0.05)         | 1.30           | 0.31          | 0.37         | 0.55            | -           |              |
|       | CV                | 4.82           | 1.33          | 1.54         | 2.48            | -           |              |

**Table 3.2.10 NMC ('000/ha) at harvest**

| S. No | Entry             | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru  | Mean          |
|-------|-------------------|----------------|---------------|--------------|-----------------|--------------|---------------|
| 1     | CoA 16321         | 118.20         | 110.79        | 87.16        | 165.33          | 66.77        | <b>109.65</b> |
| 2     | CoC 16336         | 80.35          | 122.56        | 84.13        | 157.67          | 62.35        | <b>101.41</b> |
| 3     | CoC 16337         | 121.33         | 120.36        | 90.45        | 147.33          | 69.75        | <b>109.84</b> |
| 4     | CoV 16356         | 101.27         | 116.18        | 81.58        | 157.00          | 60.19        | <b>103.24</b> |
|       | <b>Standards</b>  |                |               |              |                 |              |               |
| 1     | CoA 92081         | 111.44         | 107.86        | 77.38        | 169.00          | 72.12        | <b>107.56</b> |
| 2     | CoC 01061         | 137.44         | 111.33        | 85.75        | 122.33          | 79.32        | <b>107.23</b> |
| 3     | CoOr 03151        | 101.73         | 107.36        | 84.05        | 107.67          | 66.67        | <b>93.50</b>  |
|       | <b>Grand mean</b> | <b>111.39</b>  | <b>113.78</b> | <b>84.36</b> | <b>146.62</b>   | <b>68.17</b> | <b>104.86</b> |
|       | SE                | 9.47           | 3.49          | 1.89         | 8.72            | 2.74         |               |
|       | CD (0.05)         | 28.53          | 7.61          | 5.82         | 26.89           | 8.08         |               |
|       | CV                | 14.72          | 3.76          | 3.88         | 10.31           | 7.00         |               |

**Table 3.2.11 Stalk length (cm) at harvest**

| S. No | Entry             | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru   | Mean          |
|-------|-------------------|----------------|---------------|---------------|-----------------|---------------|---------------|
| 1     | CoA 16321         | 213.33         | 232.00        | 301.80        | 154.33          | 259.30        | <b>232.15</b> |
| 2     | CoC 16336         | 237.00         | 248.00        | 277.30        | 117.00          | 279.90        | <b>231.84</b> |
| 3     | CoC 16337         | 220.33         | 246.00        | 276.00        | 158.33          | 259.60        | <b>232.05</b> |
| 4     | CoV 16356         | 205.00         | 224.00        | 271.30        | 120.67          | 268.50        | <b>217.89</b> |
|       | <b>Standards</b>  |                |               |               |                 |               |               |
| 1     | CoA 92081         | 252.67         | 217.00        | 278.50        | 142.67          | 273.50        | <b>232.87</b> |
| 2     | CoC 01061         | 230.00         | 222.00        | 279.80        | 169.33          | 225.40        | <b>225.31</b> |
| 3     | CoOr 03151        | 236.67         | 220.00        | 282.20        | 175.33          | 278.80        | <b>238.60</b> |
|       | <b>Grand mean</b> | <b>227.86</b>  | <b>230.00</b> | <b>281.00</b> | <b>148.24</b>   | <b>263.60</b> | <b>230.14</b> |
|       | SE                | 7.35           | 6.75          | 5.63          | 10.58           | 8.97          |               |
|       | CD (0.05)         | 22.14          | 14.72         | 17.33         | 32.61           | 26.47         |               |
|       | CV                | 5.59           | 3.60          | 3.47          | 12.37           | 2.90          |               |

**Table 3.2.12 Stalk diameter (cm) at harvest**

| S. No | Entry             | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean        |
|-------|-------------------|----------------|---------------|--------------|-----------------|-------------|-------------|
| 1     | CoA 16321         | 2.13           | 2.95          | 2.83         | 2.83            | 2.81        | <b>2.71</b> |
| 2     | CoC 16336         | 1.90           | 3.03          | 2.67         | 2.37            | 2.64        | <b>2.52</b> |
| 3     | CoC 16337         | 1.78           | 3.00          | 2.58         | 2.57            | 2.93        | <b>2.57</b> |
| 4     | CoV 16356         | 2.14           | 2.87          | 2.61         | 2.70            | 3.03        | <b>2.67</b> |
|       | <b>Standards</b>  |                |               |              |                 |             |             |
| 1     | CoA 92081         | 1.53           | 2.79          | 2.75         | 2.80            | 2.73        | <b>2.52</b> |
| 2     | CoC 01061         | 1.97           | 2.56          | 2.66         | 2.20            | 2.30        | <b>2.34</b> |
| 3     | CoOr 03151        | 2.20           | 2.94          | 2.41         | 3.00            | 2.98        | <b>2.71</b> |
|       | <b>Grand mean</b> | <b>1.95</b>    | <b>2.88</b>   | <b>2.64</b>  | <b>2.63</b>     | <b>2.77</b> | <b>2.57</b> |
|       | SE                | 0.06           | 0.10          | 0.06         | 0.17            | 0.09        |             |
|       | CD (0.05)         | 0.17           | 0.21          | 0.18         | 0.52            | 0.27        |             |
|       | CV                | 5.10           | 4.14          | 3.90         | 11.18           | 5.70        |             |

**Table 3.2.13 Single cane weight (kg) at harvest**

| S. No | Entry             | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean        |
|-------|-------------------|----------------|---------------|--------------|-----------------|-------------|-------------|
| 1     | CoA 16321         | 1.06           | 1.31          | 1.23         | 1.16            | 1.44        | <b>1.24</b> |
| 2     | CoC 16336         | 0.93           | 1.36          | 1.51         | 0.63            | 1.37        | <b>1.16</b> |
| 3     | CoC 16337         | 1.20           | 1.33          | 1.37         | 0.96            | 1.57        | <b>1.29</b> |
| 4     | CoV 16356         | 1.20           | 1.20          | 1.28         | 0.68            | 1.58        | <b>1.19</b> |
|       | <b>Standards</b>  |                |               |              |                 |             |             |
| 1     | CoA 92081         | 1.07           | 1.12          | 1.32         | 0.81            | 1.13        | <b>1.09</b> |
| 2     | CoC 01061         | 0.93           | 1.04          | 1.49         | 0.74            | 0.98        | <b>1.04</b> |
| 3     | CoOr 03151        | 0.95           | 1.14          | 1.53         | 1.15            | 1.70        | <b>1.29</b> |
|       | <b>Grand mean</b> | <b>1.05</b>    | <b>1.21</b>   | <b>1.39</b>  | <b>0.88</b>     | <b>1.40</b> | <b>1.19</b> |
|       | SE                | 0.05           | 0.08          | 0.04         | 0.62            | 0.04        |             |
|       | CD (0.05)         | 0.14           | 0.18          | 0.13         | 0.19            | 0.11        |             |
|       | CV                | 7.69           | 8.41          | 5.37         | 12.16           | 4.50        |             |



**Table 3.2.14 Number of shoots ('000/ha) at 180 days**

| S. No | Entry             | Anaka palle   | Cuddalore     | Naya garh    | Nelli kuppam  | Vuyyuru      | Mean          |
|-------|-------------------|---------------|---------------|--------------|---------------|--------------|---------------|
| 1     | CoA 16321         | 123.33        | 120.55        | 90.64        | 179.00        | 73.77        | <b>117.46</b> |
| 2     | CoC 16336         | 113.09        | 130.65        | 88.36        | 168.67        | 81.17        | <b>116.39</b> |
| 3     | CoC 16337         | 128.52        | 127.79        | 95.35        | 167.67        | 85.80        | <b>121.03</b> |
| 4     | CoV 16356         | 103.46        | 125.60        | 85.45        | 174.67        | 74.79        | <b>112.79</b> |
|       | <b>Standards</b>  |               |               |              |               |              |               |
| 1     | CoA 92081         | 127.53        | 118.29        | 80.01        | 186.00        | 86.63        | <b>119.69</b> |
| 2     | CoC 01061         | 160.12        | 120.76        | 89.54        | 132.33        | 98.77        | <b>120.30</b> |
| 3     | CoOr 03151        | 116.42        | 117.11        | 87.73        | 120.00        | 76.44        | <b>103.54</b> |
|       | <b>Grand mean</b> | <b>124.64</b> | <b>122.96</b> | <b>88.15</b> | <b>161.19</b> | <b>82.48</b> | <b>115.88</b> |
|       | SE                | 6.76          | 2.72          | 2.49         | 11.42         | 4.03         |               |
|       | CD (0.05)         | 20.38         | 5.93          | 7.69         | 35.28         | 11.87        |               |
|       | CV                | 9.40          | 2.71          | 4.90         | 12.30         | 8.50         |               |

**Table 3.2.15 Number of tillers ('000/ha) at 90 days**

| S. No | Entry             | Anaka palle   | Cuddalore     | Naya garh    | Nelli kuppam  | Vuyyuru       | Mean          |
|-------|-------------------|---------------|---------------|--------------|---------------|---------------|---------------|
| 1     | CoA 16321         | 90.12         | 128.61        | 97.50        | 188.33        | 108.64        | <b>122.64</b> |
| 2     | CoC 16336         | 106.79        | 137.72        | 95.47        | 185.67        | 101.13        | <b>125.36</b> |
| 3     | CoC 16337         | 114.37        | 134.85        | 99.92        | 185.33        | 127.57        | <b>132.41</b> |
| 4     | CoV 16356         | 64.81         | 134.67        | 93.78        | 199.67        | 97.22         | <b>118.03</b> |
|       | <b>Standards</b>  |               |               |              |               |               |               |
| 1     | CoA 92081         | 129.50        | 127.35        | 84.54        | 204.00        | 110.70        | <b>131.22</b> |
| 2     | CoC 01061         | 151.11        | 128.82        | 89.28        | 155.00        | 116.46        | <b>128.13</b> |
| 3     | CoOr 03151        | 109.88        | 125.51        | 96.71        | 145.33        | 102.98        | <b>116.08</b> |
|       | <b>Grand mean</b> | <b>109.51</b> | <b>131.08</b> | <b>93.88</b> | <b>180.47</b> | <b>109.25</b> | <b>124.84</b> |
|       | SE                | 8.55          | 2.42          | 2.93         | 9.17          | 7.74          |               |
|       | CD (0.05)         | 19.34         | 7.45          | 9.04         | 28.27         | 22.83         |               |
|       | CV                | 10.55         | 3.20          | 5.41         | 8.80          | 12.30         |               |

**Table 3.2.16 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| Entries          | Nellikuppam | Cuddalore | Vuyyuru | Anakapalle | Nayagarh |
|------------------|-------------|-----------|---------|------------|----------|
| CoA 16321        | N           | On par    | On par  | Better     | On par   |
| CoC 16336        | O           | Better    | On par  | On par     | Better   |
| CoC 16337        |             | On par    | Better  | On par     | On par   |
| CoV 16356        | V           | Better    | On par  | Better     | Better   |
| <b>Standards</b> |             |           |         |            |          |
| CoA 92081        | I           | Better    | On par  | Poor       | On par   |
| CoC 01061        | D           | On par    | On par  | Better     | On par   |
| CoOr 03151       | E           | Best      | Best    | Best       | Best     |

### 3.3 ADVANCED VARIETAL TRIAL (EARLY)

#### Pooled data of Two Plant + One Ratoon

|               |  |
|---------------|--|
| Centres (5)   | Anakapalle, Cuddalore, Nayagarh, Nellikuppam and Vuyyuru |
| Entries (4)   | CoA 16321, CoC 16336, CoC 16337 and CoV 16356            |
| Standards (3) | CoA 92081, CoC 01061 and CoOr 03151                      |
| Design        | Randomized Block Design                                  |
| Replications  | Three  |
| Plot size     | Gross : 6.0 m x 8R x 0.9 m<br>Net : 5.0 m x 6R x 0.9 m   |

Four entries and three standards were evaluated under AVT I Plant during 2019-20 and AVT II Plant and AVT Ratoon during 2020-21 at five locations. The pooled mean of CCS yield, cane yield, CCS % and sucrose % at harvest of two plant crops and one ratoon crop are presented in tables 3.3.1 to 3.3.4 and figures 3.3.1 to 3.3.4. The salient results pertaining to CCS (t/ha), cane yield (t/ha), CCS % and sucrose % are provided below.

#### Commercial Cane Sugar (t/ha):

The entry CoV 16356 ranked first in the zone for CCS yield with 8.20 % improvement followed by CoA 16321 (13.39 t/ha) with 6.99 % improvement and CoC 16337 (13.02 t/ha) with 4.03 % improvement over the best standard CoA 92081 (12.51 t/ha). The entries CoV 16356 (13.54 t/ha), CoA 16321 (13.39 t/ha) and CoC 16337 (13.02 t/ha) were numerically superior for CCS yield to the best standard CoA 92081.

#### Cane Yield (t/ha):

CoC 16337 ranked first in the zone with an overall mean cane yield of 114.68 t/ha which was numerically superior over the best standard CoOr 03151 (110.92 t/ha) with an improvement of 3.39 %. The entries CoC 16337, CoA 16321 and CoV 16356 were numerically superior to the standard CoA 92081 (106.85 t/ha) with an improvement of 7.33 %, 3.79 % and 3.56 % respectively.

#### Commercial Cane Sugar (%):

The entry CoV 16356 ranked first in the zone with a mean CCS % of 12.17 followed by CoA 16321 (12.05) and both were numerically superior to all the three standards. The best entry CoV 16356 recorded 4.05 % improvement for CCS % over the standard CoA 92081 followed by CoA 16321 (3.03 %).

#### Sucrose (%):

CoV 16356 ranked first in the zone with a mean sucrose of 17.47 % followed by CoA 16321 (17.34%). CoV 16356 and CoA 16321 recorded 1.42 % and 0.66 % improvement respectively over the best standard CoC 01061 (17.22%). CoV 16356 recorded 3.73% improvement for sucrose % followed by CoA 16321 (2.96 %) and CoC 16336 (1.49 %) over the next best standard CoA 92081.

#### Overall performance:

Based on the pooled mean of two plant and one ratoon crops at five locations, the entry CoV 16356 recorded 8.20 % improvement in CCS yield, 3.56 % for cane yield, 3.73 % for juice sucrose % and 4.05 % improvement for CCS % followed by CoA 16321 with 6.99 % improvement for sugar yield, 3.79 % for cane yield, 3.03 % for CCS and 2.96 % for sucrose % over the standard CoA 92081. CoC 16337 recorded an improvement of 4.03 % for sugar yield and 7.33 % for cane yield over CoA 92081. None of the entries recorded more than 10 % improvement for cane yield or more than 5 % improvement for juice quality in comparison to the standard CoA 92081 in the zone. No qualifying entry could be identified under early maturing group in this zone.

**Table 3.3.1 CCS at harvest (t/ha) - Pooled data of two plant and one ratoon crops**

| S. No. | Clone               | Anakapalle   |              |              |              | Cuddalore    |              |              |              | Nayagarh     |              |             |              |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|
|        |                     | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         | IP           | IIP          | R           | Mean         |
| 1      | CoA 16321           | 15.22        | 16.85        | 14.97        | <b>15.68</b> | 15.90        | 16.45        | 15.48        | <b>15.94</b> | 11.43        | 12.39        | 9.40        | <b>11.07</b> |
| 2      | CoC 16336           | 10.99        | 14.80        | 8.79         | <b>11.53</b> | 16.71        | 17.10        | 16.28        | <b>16.70</b> | 11.33        | 11.71        | 9.74        | <b>10.93</b> |
| 3      | CoC 16337           | 12.60        | 14.28        | 13.35        | <b>13.41</b> | 16.87        | 17.61        | 16.69        | <b>17.06</b> | 11.29        | 12.47        | 9.34        | <b>11.03</b> |
| 4      | CoV 16356           | 11.27        | 14.16        | 13.74        | <b>13.06</b> | 16.00        | 16.78        | 15.84        | <b>16.21</b> | 11.65        | 12.62        | 8.57        | <b>10.95</b> |
|        | <b>Standards</b>    |              |              |              |              |              |              |              |              |              |              |             |              |
| 1      | CoA 92081           | 12.22        | 12.47        | 13.35        | <b>12.68</b> | 14.81        | 14.88        | 13.81        | <b>14.50</b> | 9.87         | 10.96        | 9.34        | <b>10.06</b> |
| 2      | CoC 01061           | 9.95         | 13.98        | 13.90        | <b>12.61</b> | 14.66        | 13.87        | 13.09        | <b>13.87</b> | 10.93        | 11.15        | 7.72        | <b>9.93</b>  |
| 3      | CoOr-03151          | 10.08        | 12.69        | 9.94         | <b>10.90</b> | 15.58        | 15.85        | 14.59        | <b>15.34</b> | 11.24        | 11.67        | 9.01        | <b>10.64</b> |
|        | <b>General Mean</b> | <b>11.76</b> | <b>14.18</b> | <b>12.58</b> | <b>12.84</b> | <b>15.79</b> | <b>16.08</b> | <b>15.11</b> | <b>15.66</b> | <b>11.11</b> | <b>11.85</b> | <b>9.02</b> | <b>10.66</b> |
| S. No. | Clone               | Nellikuppam  |              |              |              | Vuyyuru      |              |              |              | GM           |              |             |              |
|        |                     | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         | IP           | IIP          | R           | Mean         |
| 1      | CoA 16321           | 13.28        | 10.98        | 11.83        | <b>12.03</b> | 10.64        | 13.99        | 11.98        | <b>12.20</b> | 13.39        |              |             | <b>2</b>     |
| 2      | CoC 16336           | 11.16        | 12.90        | 8.33         | <b>10.80</b> | 10.34        | 13.15        | 14.17        | <b>12.55</b> | 12.50        |              |             |              |
| 3      | CoC 16337           | 12.94        | 10.27        | 10.96        | <b>11.39</b> | 12.50        | 12.09        | 11.98        | <b>12.19</b> | 13.02        |              |             | <b>3</b>     |
| 4      | CoV 16356           | 12.35        | 14.00        | 8.80         | <b>11.72</b> | 17.47        | 16.60        | 13.21        | <b>15.76</b> | 13.54        |              |             | <b>1</b>     |
|        | <b>Standards</b>    |              |              |              |              |              |              |              |              |              |              |             |              |
| 1      | CoA 92081           | 12.14        | 14.95        | 11.72        | <b>12.94</b> | 14.74        | 13.12        | 9.29         | <b>12.38</b> | 12.51        |              |             |              |
| 2      | CoC 01061           | 9.54         | 11.23        | 8.30         | <b>9.69</b>  | 13.23        | 13.25        | 12.56        | <b>13.01</b> | 11.82        |              |             |              |
| 3      | CoOr-03151          | 11.56        | 14.16        | 8.90         | <b>11.54</b> | 14.46        | 12.96        | 12.76        | <b>13.39</b> | 12.36        |              |             |              |
|        | <b>General Mean</b> | <b>11.85</b> | <b>12.64</b> | <b>9.83</b>  | <b>11.44</b> | <b>13.34</b> | <b>13.59</b> | <b>12.28</b> | <b>13.07</b> | <b>12.73</b> |              |             |              |

**Table 3. 3.2 Cane yield at harvest (t/ha) - Pooled data of two plant and one ratoon crops**

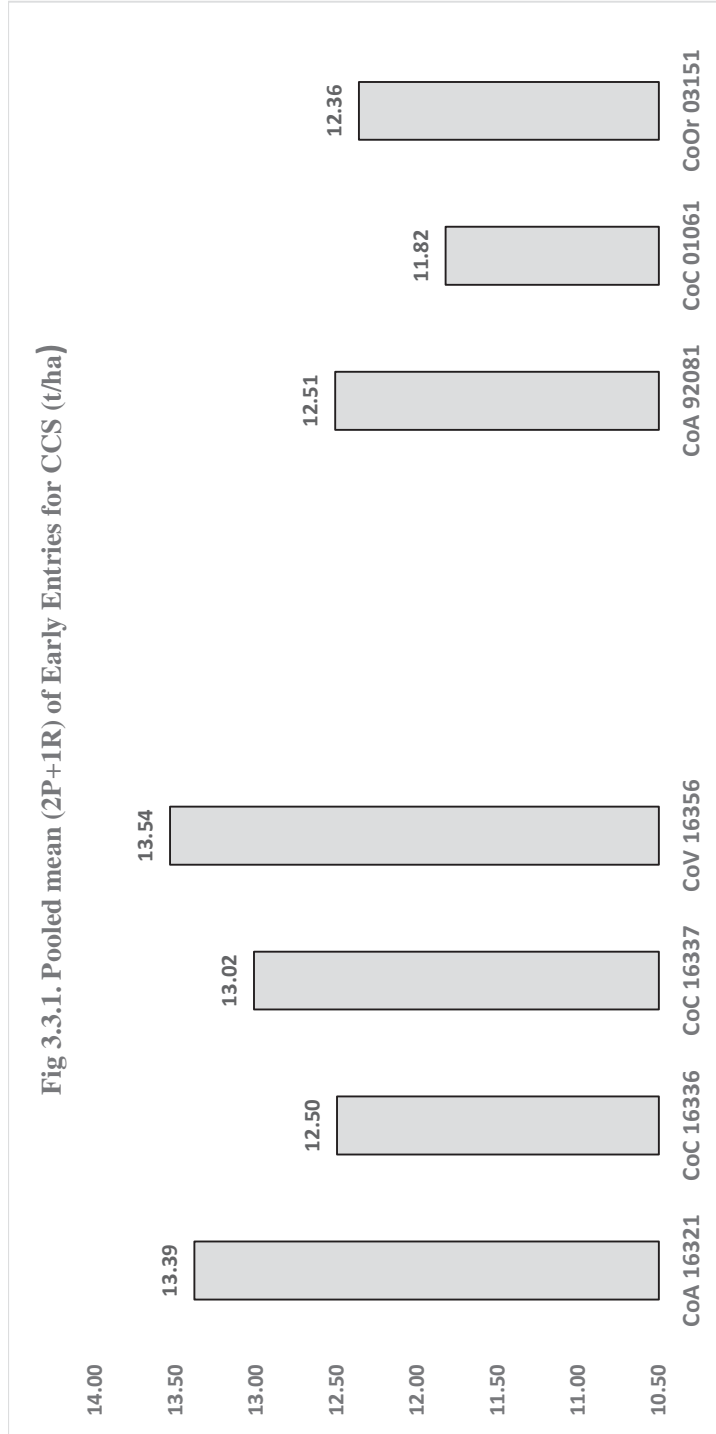
| S. No. | Clone               | Anakapalle    |               |               |               | Cuddalore     |               |               |               | Nayagarh      |              |              |              |
|--------|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|
|        |                     | IP            | IIP           | R             | Mean          | IP            | IIP           | R             | Mean          | IP            | IIP          | R            | Mean         |
| 1      | CoA 16321           | 117.05        | 127.65        | 121.58        | 122.09        | 125.26        | 128.13        | 121.9         | 125.10        | 95.86         | 101.91       | 79.36        | 92.38        |
| 2      | CoC 16336           | 88.33         | 122.95        | 75.08         | 95.45         | 128.10        | 132.93        | 127.7         | 129.58        | 98.13         | 99.41        | 83.96        | 93.83        |
| 3      | CoC 16337           | 108.63        | 126.52        | 125.25        | 120.13        | 131.93        | 136.23        | 130.34        | 132.83        | 94.84         | 104.17       | 78.94        | 92.65        |
| 4      | CoV 16356           | 89.38         | 117.82        | 121.44        | 109.55        | 127.61        | 131.10        | 126.87        | 128.53        | 98.18         | 103.66       | 71.75        | 91.20        |
|        | <b>Standards</b>    |               |               |               |               |               |               |               |               |               |              |              |              |
| 1      | CoA 92081           | 97.23         | 103.31        | 119.13        | 106.56        | 119.10        | 117.67        | 112.78        | 116.52        | 84.21         | 92.19        | 80.31        | 85.57        |
| 2      | CoC 01061           | 75.68         | 111.79        | 119.05        | 102.17        | 118.89        | 111.69        | 107.46        | 112.68        | 95.79         | 95.90        | 67.34        | 86.34        |
| 3      | CoOr 03151          | 89.14         | 115.06        | 96.40         | 100.20        | 123.95        | 124.05        | 117.49        | 121.83        | 99.28         | 100.34       | 78.36        | 92.66        |
|        | <b>General Mean</b> | <b>95.06</b>  | <b>117.87</b> | <b>111.13</b> | <b>108.02</b> | <b>124.98</b> | <b>125.97</b> | <b>120.65</b> | <b>123.87</b> | <b>95.18</b>  | <b>99.66</b> | <b>77.14</b> | <b>90.66</b> |
| S. No. | Clone               | Nellikuppam   |               |               |               | Vuyyuru       |               |               |               | GM            |              | Rank         |              |
|        |                     | IP            | IIP           | R             | Mean          | IP            | IIP           | R             | Mean          | GM            | Rank         |              |              |
| 1      | CoA 16321           | 122.31        | 86.40         | 117.82        | 108.84        | 93.21         | 119.34        | 105.66        | 106.07        | 110.90        | 3            |              |              |
| 2      | CoC 16336           | 96.84         | 107.49        | 75.80         | 93.38         | 95.06         | 121.30        | 125.31        | 113.89        | 105.23        |              |              |              |
| 3      | CoC 16337           | 111.97        | 90.35         | 108.98        | 103.77        | 129.01        | 131.48        | 111.63        | 124.04        | 114.68        | 1            |              |              |
| 4      | CoV 16356           | 107.65        | 110.33        | 85.13         | 101.04        | 128.70        | 131.17        | 109.05        | 122.97        | 110.66        |              |              |              |
|        | <b>Standards</b>    |               |               |               |               |               |               |               |               |               |              |              |              |
| 1      | CoA 92081           | 105.72        | 124.37        | 105.89        | 111.99        | 116.46        | 119.86        | 104.53        | 113.62        | 106.85        |              |              |              |
| 2      | CoC 01061           | 87.58         | 85.70         | 74.40         | 82.56         | 117.80        | 109.16        | 100.31        | 109.09        | 98.57         |              |              |              |
| 3      | CoOr 03151          | 124.24        | 127.67        | 103.15        | 118.35        | 121.50        | 128.09        | 115.12        | 121.57        | 110.92        | 2            |              |              |
|        | <b>General Mean</b> | <b>108.00</b> | <b>104.61</b> | <b>95.88</b>  | <b>102.83</b> | <b>114.54</b> | <b>122.91</b> | <b>110.23</b> | <b>115.89</b> | <b>108.26</b> |              |              |              |

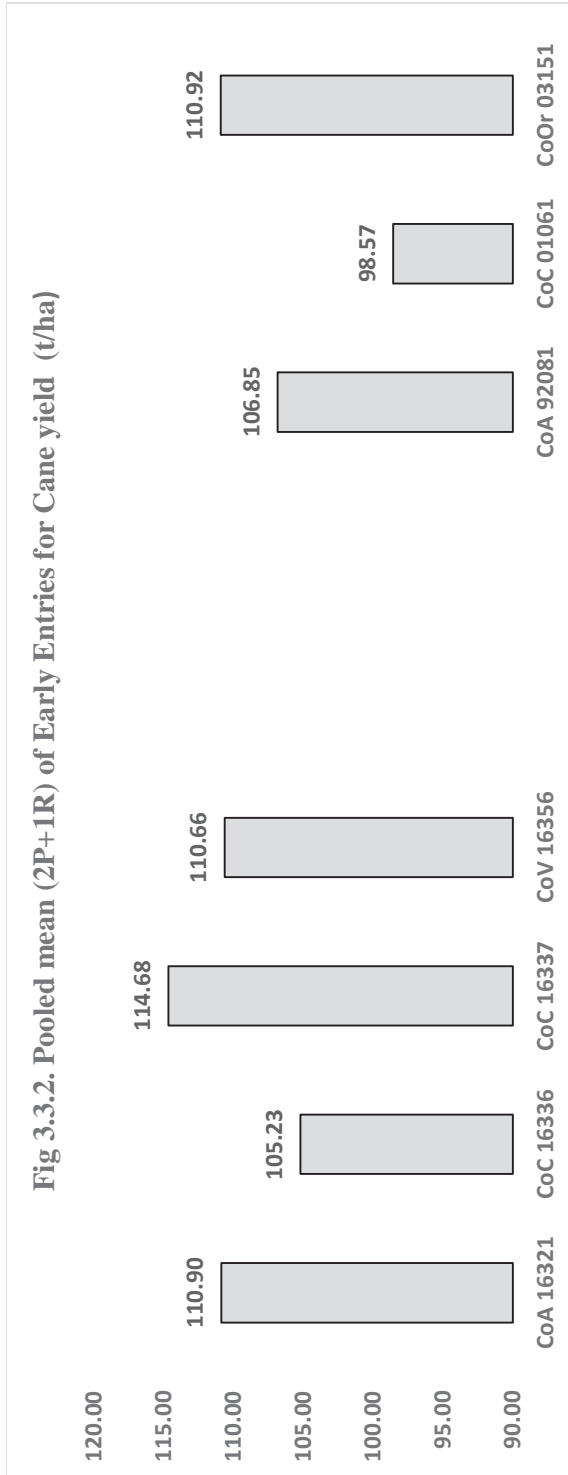
**Table 3.3.3 CCS (%) at harvest - Pooled data of two plant and one ratoon crops**

| S. No. | Clone               | Anakapalle   |              |              |              | Cuddalore    |              |              |              | Nayagarh     |              |              |              |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|        |                     | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         |
| 1      | CoA 16321           | 13.02        | 13.20        | 12.31        | <b>12.84</b> | 12.70        | 12.84        | 12.7         | <b>12.75</b> | 11.93        | 12.15        | 11.84        | <b>11.97</b> |
| 2      | CoC 16336           | 12.42        | 12.06        | 11.62        | <b>12.03</b> | 13.04        | 12.87        | 12.74        | <b>12.88</b> | 11.55        | 11.77        | 11.61        | <b>11.64</b> |
| 3      | CoC 16337           | 11.59        | 11.27        | 10.65        | <b>11.17</b> | 12.78        | 12.93        | 12.79        | <b>12.83</b> | 11.91        | 11.97        | 11.83        | <b>11.90</b> |
| 4      | CoV 16356           | 12.55        | 12.04        | 11.31        | <b>11.97</b> | 12.53        | 12.80        | 12.48        | <b>12.60</b> | 11.86        | 12.17        | 11.95        | <b>11.99</b> |
|        | <b>Standards</b>    |              |              |              |              |              |              |              |              |              |              |              |              |
| 1      | CoA 92081           | 12.58        | 12.05        | 11.21        | <b>11.95</b> | 12.44        | 12.65        | 12.23        | <b>12.44</b> | 11.72        | 11.89        | 11.63        | <b>11.75</b> |
| 2      | CoC 01061           | 13.15        | 12.53        | 11.68        | <b>12.45</b> | 12.33        | 12.42        | 12.17        | <b>12.31</b> | 11.41        | 11.63        | 11.72        | <b>11.59</b> |
| 3      | CoOr-03151          | 11.32        | 11.02        | 10.29        | <b>10.88</b> | 12.57        | 12.78        | 12.42        | <b>12.59</b> | 11.32        | 11.64        | 11.50        | <b>11.49</b> |
|        | <b>General Mean</b> | <b>12.38</b> | <b>12.02</b> | <b>11.30</b> | <b>11.90</b> | <b>12.63</b> | <b>12.75</b> | <b>12.50</b> | <b>12.63</b> | <b>11.67</b> | <b>11.89</b> | <b>11.72</b> | <b>11.76</b> |
| S. No. | Clone               | Nellikuppam  |              |              |              | Vuyyuru      |              |              |              | GM           |              |              |              |
|        |                     | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         | Rank         | Rank         |              |              |
| 1      | CoA 16321           | 10.87        | 12.70        | 10.04        | <b>11.20</b> | 11.42        | 11.72        | 11.34        | <b>11.49</b> | <b>12.05</b> | <b>2</b>     |              |              |
| 2      | CoC 16336           | 11.53        | 12.01        | 10.98        | <b>11.51</b> | 10.93        | 10.84        | 11.31        | <b>11.03</b> | <b>11.82</b> |              |              |              |
| 3      | CoC 16337           | 11.56        | 11.37        | 10.05        | <b>10.99</b> | 9.70         | 9.20         | 10.73        | <b>9.88</b>  | <b>11.36</b> |              |              |              |
| 4      | CoV 16356           | 11.48        | 12.70        | 10.36        | <b>11.51</b> | 13.57        | 12.65        | 12.12        | <b>12.78</b> | <b>12.17</b> | <b>1</b>     |              |              |
|        | <b>Standards</b>    |              |              |              |              |              |              |              |              |              |              |              |              |
| 1      | CoA 92081           | 11.47        | 12.02        | 11.08        | <b>11.52</b> | 12.66        | 10.95        | 8.89         | <b>10.83</b> | <b>11.70</b> |              |              |              |
| 2      | CoC 01061           | 10.90        | 13.09        | 11.14        | <b>11.71</b> | 11.21        | 12.14        | 12.52        | <b>11.96</b> | <b>12.00</b> | <b>3</b>     |              |              |
| 3      | CoOr-03151          | 9.32         | 11.09        | 8.60         | <b>9.67</b>  | 11.92        | 10.12        | 11.08        | <b>11.04</b> | <b>11.13</b> |              |              |              |
|        | <b>General Mean</b> | <b>11.01</b> | <b>12.13</b> | <b>10.31</b> | <b>11.15</b> | <b>11.63</b> | <b>11.09</b> | <b>11.14</b> | <b>11.29</b> | <b>11.74</b> |              |              |              |

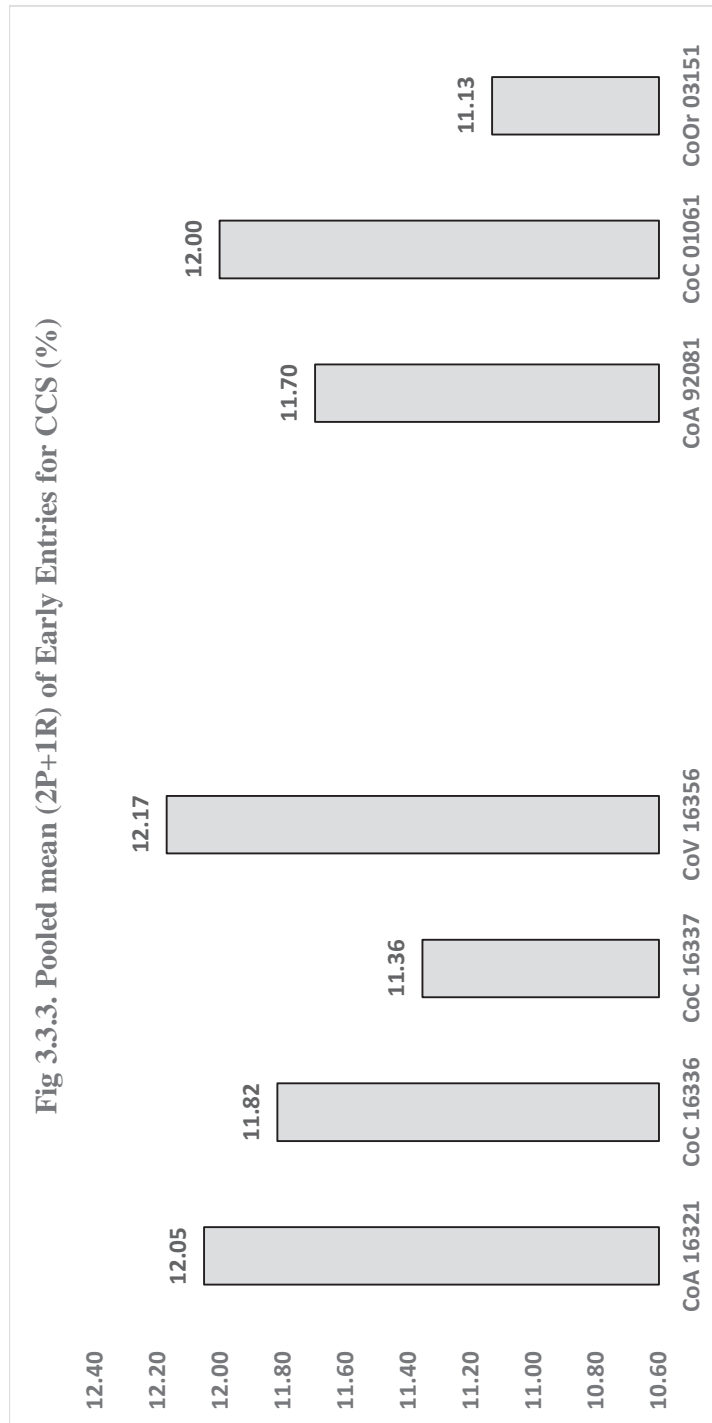
**Table 3.3.4 Sucrose (%) at harvest - Pooled data of two plant and one ratoon crops**

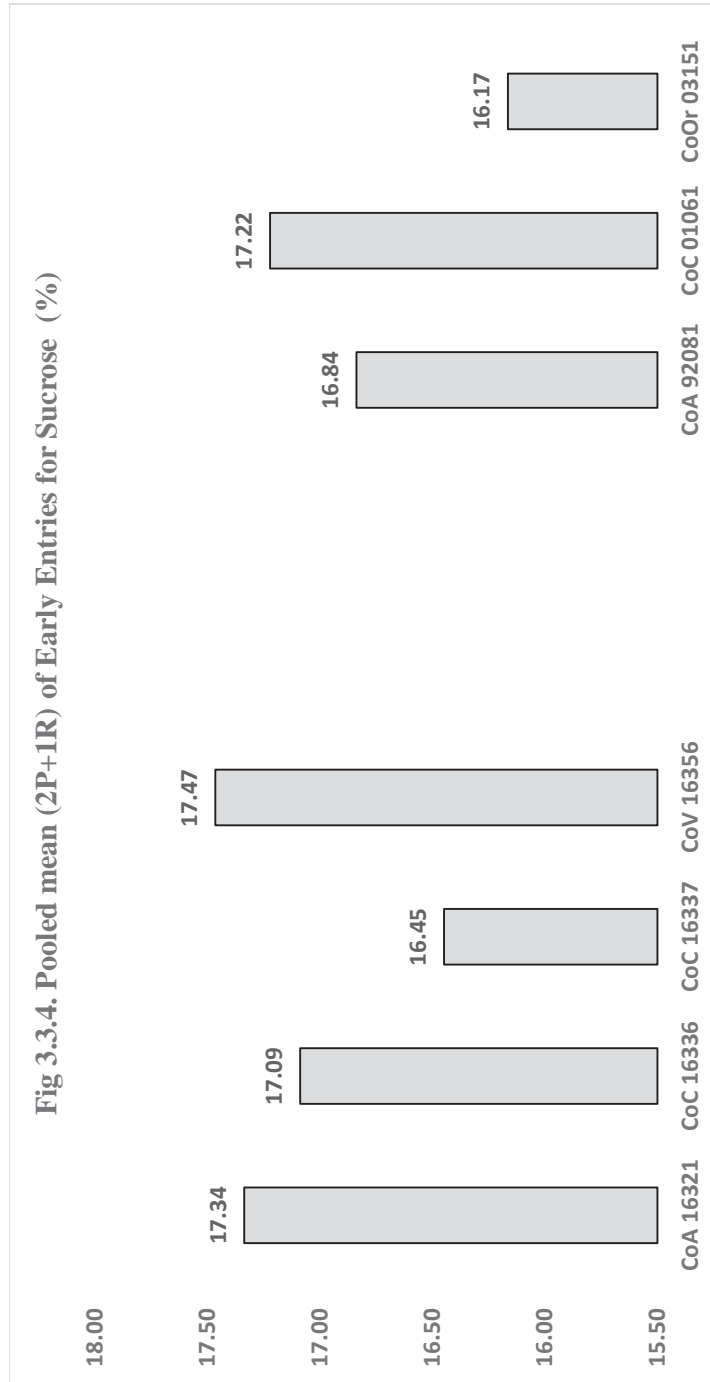
| S. No. | Clone               | Anakapalle   |              |              |              | Cuddalore    |              |              |              | Nayagarh     |              |              |              |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|        |                     | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         |
| 1      | CoA 16321           | 18.50        | 18.86        | 17.71        | 18.36        | 17.97        | 18.63        | 18.24        | 18.28        | 17.36        | 17.60        | 17.31        | 17.42        |
| 2      | CoC 16336           | 17.76        | 17.32        | 16.76        | 17.28        | 18.67        | 18.58        | 18.11        | 18.45        | 17.01        | 17.23        | 17.04        | 17.09        |
| 3      | CoC 16337           | 16.55        | 16.13        | 15.47        | 16.05        | 18.06        | 18.54        | 18.08        | 18.23        | 17.36        | 17.48        | 17.32        | 17.39        |
| 4      | CoV 16356           | 17.48        | 17.33        | 16.37        | 17.06        | 17.83        | 18.31        | 17.64        | 17.93        | 17.31        | 17.63        | 17.41        | 17.45        |
|        | <b>Standards</b>    |              |              |              |              |              |              |              |              |              |              |              |              |
| 1      | CoA 92081           | 17.83        | 17.31        | 16.23        | 17.12        | 17.69        | 18.08        | 17.39        | 17.72        | 17.14        | 17.33        | 17.08        | 17.18        |
| 2      | CoC 01061           | 17.97        | 17.93        | 16.82        | 17.57        | 17.45        | 17.80        | 17.43        | 17.56        | 16.88        | 17.10        | 17.17        | 17.05        |
| 3      | CoOr 03151          | 16.23        | 15.83        | 14.88        | 15.65        | 17.90        | 18.36        | 17.71        | 17.99        | 16.75        | 17.07        | 16.92        | 16.91        |
|        | <b>General Mean</b> | <b>17.47</b> | <b>17.24</b> | <b>16.32</b> | <b>17.01</b> | <b>17.94</b> | <b>18.33</b> | <b>17.80</b> | <b>18.02</b> | <b>17.12</b> | <b>17.35</b> | <b>17.18</b> | <b>17.22</b> |
| S. No. | Clone               | Nellikuppam  |              |              |              | Vuyyuru      |              |              |              | GM           |              | Rank         |              |
|        |                     | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         | IP           | Mean         |              |              |
| 1      | CoA 16321           | 15.66        | 18.02        | 14.68        | 16.12        | 16.58        | 16.89        | 16.04        | 16.50        | 17.34        | 17.09        | 2            |              |
| 2      | CoC 16336           | 16.50        | 17.16        | 16.06        | 16.57        | 15.82        | 16.01        | 16.30        | 16.04        | 17.09        | 16.45        |              |              |
| 3      | CoC 16337           | 16.67        | 16.24        | 14.56        | 15.82        | 15.31        | 13.79        | 15.17        | 14.76        | 16.45        | 16.45        |              |              |
| 4      | CoV 16356           | 16.74        | 18.04        | 15.30        | 16.69        | 19.18        | 18.08        | 17.34        | 18.20        | 17.47        | 17.47        | 1            |              |
|        | <b>Standards</b>    |              |              |              |              |              |              |              |              |              |              |              |              |
| 1      | CoA 92081           | 16.35        | 17.22        | 16.19        | 16.59        | 18.02        | 15.69        | 13.02        | 15.58        | 16.84        | 16.84        |              |              |
| 2      | CoC 01061           | 15.61        | 18.44        | 16.13        | 16.73        | 16.30        | 17.46        | 17.84        | 17.20        | 17.22        | 17.22        | 3            |              |
| 3      | CoOr 03151          | 13.58        | 16.14        | 12.97        | 14.23        | 17.27        | 14.84        | 16.03        | 16.05        | 16.17        | 16.17        |              |              |
|        | <b>General Mean</b> | <b>15.87</b> | <b>17.32</b> | <b>15.13</b> | <b>16.11</b> | <b>16.93</b> | <b>16.11</b> | <b>15.96</b> | <b>16.33</b> | <b>16.94</b> | <b>16.94</b> |              |              |











### 3.4 ADVANCED VARIETAL TRIAL (EARLY) – I PLANT

|               |  |
|---------------|--|
| Centres (5)   | Anakapalle, Cuddalore, Nayagarh, Nellikuppam and Vuyyuru |
| Entries (3)   | CoA 17321, CoA 17323 and CoC 17336                       |
| Standards (3) | CoA 92081, CoC 01061 and CoOr 03151                      |
| Design        | Randomized Block Design                                  |
| Replications  | Four   |
| Plot size     | Gross : 6.0 m x 8R x 0.9 m<br>Net : 5.0 m x 6R x 0.9 m   |
| Bud rate      | 12 buds/ metre   |
| Planting time | 1 <sup>st</sup> fortnight of January                     |
| Crop duration | 10 months  |

#### Results of the previous year

CoC 17336 (13.23 t/ha) ranked first in the zone for CCS yield followed by CoA 17321 (13.20 t/ha). CoOr 03151 was the best standard for CCS (13.12 t/ha) and cane yield (120.85 t/ha). None of the entries recorded more than 10 % improvement over the best standard CoOr 03151 for cane yield and CCS yield in the zone. CoA 17321 recorded the highest mean CCS % and juice sucrose % of 12.02 and 17.21 respectively. No entry recorded more than 5 % improvement for CCS % and sucrose % over the best standard across the locations.

#### Results of the current year

The entry CoC 17336 (13.71 t/ha) ranked second in the zone for CCS yield followed by CoA 17321 (13.36 t/ha) while the best standard CoA 92081 ranked first in the zone with 14.02 t/ha CCS yield. The best standard CoOr 03151 recorded the highest cane yield of 116.18 t/ha followed by CoA 92081 (116.14 t/ha). None of the entries recorded more than 10 % improvement over the standards CoA 92081 and CoOr 03151 for CCS and cane yield respectively across the zone. The entry CoA 17323 recorded the highest mean CCS % and juice sucrose % of 11.94 and 17.18 respectively. No entry recorded more than 5 % improvement for CCS % and sucrose % over the standards CoC 01061 and CoA 92081 across the locations. No qualifying entry for cane yield and juice quality could be identified from the trial. Further details are presented in tables 3.4.1 to 3.4.20.

**Table 3.4.1 CCS (t/ha) at harvest**

| S. No | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru  | Mean         | Rank     |
|-------|--|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1     | CoA 17321                                  | 14.86          | 16.23         | 12.50        | 9.25            | 13.95        | <b>13.36</b> | <b>3</b> |
| 2     | CoA 17323                                  | 12.28          | 16.49         | 11.59        | 10.92           | 13.13        | <b>12.88</b> |          |
| 3     | CoC 17336                                  | 11.86          | 17.16*        | 13.20        | 11.87           | 14.47        | <b>13.71</b> | <b>2</b> |
|       | <b>Standards</b>                           |                |               |              |                 |              |              |          |
| 1     | CoA 92081                                  | 13.71          | 15.70         | 11.26        | 13.83           | 15.58        | <b>14.02</b> | <b>1</b> |
| 2     | CoC 01061                                  | 13.55          | 14.31         | 10.73        | 7.67            | 13.54        | <b>11.96</b> |          |
| 3     | CoOr 03151                                 | 14.99          | 15.78         | 12.58        | 10.84           | 11.63        | <b>13.16</b> |          |
|       | <b>General mean</b>                        | <b>13.54</b>   | <b>15.94</b>  | <b>11.98</b> | <b>10.73</b>    | <b>13.72</b> | <b>13.18</b> |          |
|       | SE   | 0.74           | 0.47          | 0.36         | 0.52            | 0.70         |              |          |
|       | CD   | 2.23           | 1.00          | 1.08         | 1.57            | 2.04         |              |          |
|       | CV   | 10.91          | 4.17          | 5.99         | 9.72            | 10.2         |              |          |
|       | <b>Qualifying entries at each location</b> |                |               |              |                 |              |              |          |
|       | 1  | -              | -             | -            | -               | -            |              |          |
|       | 2  | -              | -             | -            | -               | -            |              |          |
|       | 3  | -              | -             | -            | -               | -            |              |          |

\*Significant over the best standard

**No. of locations where an entry recorded 10 % improvement over the best standard:**

None

**Performance of the entries across locations:**

The entry CoC 17366 ranked second in the zone with CCS yield of 13.71 t/ha and the entries CoA 17321 and CoA 17323 recorded lower CCS yield in comparison with the best standard CoA 92081 (14.02 t/ha) across locations. No entry recorded more than 10 % improvement for CCS yield over the best standard CoA 92081 across the locations.

**Table 3.4.2 Cane yield (t/ha) at harvest**

| S. No | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru   | Mean          | Rank     |
|-------|--|----------------|---------------|---------------|-----------------|---------------|---------------|----------|
| 1     | CoA 17321                                  | 119.55         | 126.83        | 104.42        | 98.86           | 116.20        | <b>113.17</b> |          |
| 2     | CoA 17323                                  | 105.83         | 128.43        | 97.78         | 104.40          | 101.93        | <b>107.67</b> |          |
| 3     | CoC 17336                                  | 111.33         | 132.60        | 109.10        | 121.49          | 129.48        | <b>120.80</b> | <b>1</b> |
|       | <b>Standards</b>                           |                |               |               |                 |               |               |          |
| 1     | CoA 92081                                  | 119.76         | 122.55        | 96.11         | 117.42          | 124.85        | <b>116.14</b> | <b>3</b> |
| 2     | CoC 01061                                  | 113.04         | 115.40        | 90.41         | 65.52           | 103.01        | <b>97.48</b>  |          |
| 3     | CoOr 03151                                 | 135.26         | 124.05        | 106.10        | 109.78          | 105.71        | <b>116.18</b> | <b>2</b> |
|       | <b>General mean</b>                        | <b>117.46</b>  | <b>124.98</b> | <b>100.65</b> | <b>102.90</b>   | <b>113.53</b> | <b>111.90</b> |          |
|       | SE   | 6.02           | 3.24          | 2.69          | 5.08            | 5.21          |               |          |
|       | CD   | 18.14          | 6.92          | 8.11          | 15.31           | 15.25         |               |          |
|       | CV   | 10.25          | 3.67          | 5.35          | 9.86            | 9.20          |               |          |
|       | <b>Qualifying entries at each location</b> |                |               |               |                 |               |               |          |
|       | 1  | -              | -             | -             | CoC<br>17366    | -             |               |          |
|       | 2  | -              | -             | -             | -               | -             |               |          |
|       | 3  | -              | -             | -             | -               | -             |               |          |

**No. of locations where an entry recorded 10 % improvement over the best standard:**

CoC 17366 (1)

**Performance of the entries across locations:** CoC 17366 was the best entry for cane yield (120.80 t/ha) which recorded 3.98 % and 4.01 % improvement over the best standard CoOr 03151 (116.18 t/ha) and CoA 92081 (116.14 t/ha) respectively. None of the entries recorded more than 10 % improvement over the standards CoOr 03151 and CoA 92081 across locations.

**Table 3.4.3 CCS % at 10<sup>th</sup> month**

| S. No | Entry                                      | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         | Rank     |
|-------|--|--------------|--------------|--------------|--------------|--------------|--------------|----------|
| 1     | CoA 17321                                  | 12.45        | 12.80        | 11.97        | 9.35         | 12.01        | <b>11.72</b> |          |
| 2     | CoA 17323                                  | 11.66        | 12.84        | 11.85        | 10.47        | 12.88        | <b>11.94</b> | <b>3</b> |
| 3     | CoC 17336                                  | 10.61        | 12.94        | 12.09        | 9.77         | 11.18        | <b>11.32</b> |          |
|       | <b>Standards</b>                           |              |              |              |              |              |              |          |
| 1     | CoA 92081                                  | 11.47        | 12.81        | 11.74        | 11.77        | 12.48        | <b>12.05</b> | <b>2</b> |
| 2     | CoC 01061                                  | 11.95        | 12.40        | 11.88        | 11.70        | 13.15        | <b>12.22</b> | <b>1</b> |
| 3     | CoOr 03151                                 | 11.09        | 12.73        | 11.79        | 9.87         | 11.01        | <b>11.30</b> |          |
|       | <b>General mean</b>                        | <b>11.54</b> | <b>12.75</b> | <b>11.88</b> | <b>10.49</b> | <b>12.12</b> | <b>11.76</b> |          |
|       | SE   | 0.30         | 0.18         | 0.12         | 0.12         | 0.14         |              |          |
|       | CD   | 0.91         | 0.37         | NS           | 0.36         | 0.40         |              |          |
|       | CV   | 5.25         | 1.95         | 1.96         | 2.26         | 2.30         |              |          |
|       | <b>Qualifying entries at each location</b> |              |              |              |              |              |              |          |
|       | 1  | -            | -            | -            | -            | -            |              |          |
|       | 2  | -            | -            | -            | -            | -            |              |          |
|       | 3  | -            | -            | -            | -            | -            |              |          |

**No. of locations where an entry recorded 5 % improvement over the best standard:**

None

**Performance of the entries across locations:**

The entry CoA 17323 recorded the highest mean CCS % of 11.94 while the best standard CoC 01061 recorded CCS of 12.22 % followed by CoA 92081 (12.05 %).

**Table 3.4.4 Sucrose % at 10<sup>th</sup> month**

| S. No | Entry                                      | Anaka<br>palle | Cudd<br>alore | Naya<br>garh | Nelli<br>kuppam | Vuyy<br>uru  | Mean         | Rank     |
|-------|--|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1     | CoA 17321                                  | 17.69          | 18.28         | 17.40        | 13.83           | 17.15        | <b>16.87</b> |          |
| 2     | CoA 17323                                  | 16.73          | 18.62         | 17.15        | 15.26           | 18.13        | <b>17.18</b> | <b>3</b> |
| 3     | CoC 17336                                  | 15.45          | 18.69         | 17.44        | 14.25           | 16.03        | <b>16.37</b> |          |
|       | <b>Standards</b>                           |                |               |              |                 |              |              |          |
| 1     | CoA 92081                                  | 16.48          | 18.37         | 17.14        | 16.85           | 17.68        | <b>17.30</b> | <b>2</b> |
| 2     | CoC 01061                                  | 17.16          | 17.77         | 17.10        | 16.78           | 18.50        | <b>17.46</b> | <b>1</b> |
| 3     | CoOr 03151                                 | 16.00          | 18.41         | 16.96        | 14.42           | 15.78        | <b>16.31</b> |          |
|       | <b>General mean</b>                        | <b>16.59</b>   | <b>18.36</b>  | <b>17.20</b> | <b>15.22</b>    | <b>17.21</b> | <b>16.92</b> |          |
|       | SE   | 0.38           | 0.20          | 0.10         | 0.18            | 0.19         |              |          |
|       | CD (0.05)                                  | 1.13           | 0.42          | 0.32         | 0.55            | 0.57         |              |          |
|       | CV   | 4.54           | 1.54          | 1.14         | 2.39            | 2.30         |              |          |
|       | <b>Qualifying entries at each location</b> |                |               |              |                 |              |              |          |
|       | 1  | -              | -             | -            | -               | -            |              |          |
|       | 2  | -              | -             | -            | -               | -            |              |          |
|       | 3  | -              | -             | -            | -               | -            |              |          |

**No. of locations where an entry recorded 5 % improvement over the best standard:**

None

**Performance of the entries across locations:**

The entry CoA 17323 recorded the highest juice sucrose % of 17.18 while the best standard CoC 01061 recorded 17.46 % sucrose followed by CoA 92081 (17.30%).

**Table 3.4.5 Brix % at 10<sup>th</sup> month**

| S. No | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | CoA 17321           | 19.26        | 20.17        | 19.92        | 16.35        | 18.92        | <b>18.92</b> |
| 2     | CoA 17323           | 18.63        | 21.20        | 19.45        | 17.56        | 19.35        | <b>19.24</b> |
| 3     | CoC 17336           | 17.74        | 21.10        | 19.66        | 16.41        | 17.82        | <b>18.55</b> |
|       | <b>Standards</b>    |              |              |              |              |              |              |
| 1     | CoA 92081           | 18.41        | 20.45        | 19.89        | 18.64        | 19.12        | <b>19.30</b> |
| 2     | CoC 01061           | 19.14        | 19.72        | 19.16        | 18.67        | 19.72        | <b>19.28</b> |
| 3     | CoOr 03151          | 18.02        | 20.85        | 19.00        | 16.66        | 17.54        | <b>18.41</b> |
|       | <b>General mean</b> | <b>18.53</b> | <b>20.58</b> | <b>19.51</b> | <b>17.37</b> | <b>18.74</b> | <b>18.95</b> |
|       | SE                  | 0.43         | 0.16         | 0.13         | 0.23         | 0.21         |              |
|       | CD (0.05)           | 1.29         | 0.34         | 0.39         | 0.71         | 0.62         |              |
|       | CV                  | 4.61         | 1.10         | 1.31         | 2.40         | 2.30         |              |

**Table 3.4.6 Purity % at 10<sup>th</sup> month**

| S. No | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | CoA 17321           | 91.84        | 90.67        | 87.36        | 84.55        | 90.68        | <b>89.02</b> |
| 2     | CoA 17323           | 89.79        | 87.85        | 88.22        | 86.91        | 93.69        | <b>89.29</b> |
| 3     | CoC 17336           | 87.30        | 88.59        | 88.75        | 86.82        | 89.96        | <b>88.28</b> |
|       | <b>Standards</b>    |              |              |              |              |              |              |
| 1     | CoA 92081           | 89.53        | 89.83        | 86.19        | 90.39        | 92.44        | <b>89.68</b> |
| 2     | CoC 01061           | 89.67        | 90.09        | 89.22        | 89.88        | 93.80        | <b>90.53</b> |
| 3     | CoOr 03151          | 88.79        | 88.31        | 89.26        | 86.57        | 89.98        | <b>88.58</b> |
|       | <b>General mean</b> | <b>89.49</b> | <b>89.22</b> | <b>88.17</b> | <b>87.52</b> | <b>91.76</b> | <b>89.23</b> |
|       | SE                  | 1.45         | 0.71         | 0.87         | 0.22         | 0.23         |              |
|       | CD (0.05)           | 4.38         | 1.52         | NS           | 0.66         | 0.68         |              |
|       | CV                  | 3.25         | 1.13         | 1.98         | 0.92         | 0.50         |              |

**Table 3.4.7 Pol % cane at harvest**

| S. No | Entry               | Anakapalle   | Cuddalore    | Naya garh    | Nellikuppam  | Vuyyuru | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1     | CoA 17321           | 13.59        | 14.05        | 13.27        | 10.61        | -       | <b>12.88</b> |
| 2     | CoA 17323           | 12.78        | 14.33        | 13.09        | 11.68        | -       | <b>12.97</b> |
| 3     | CoC 17336           | 11.57        | 14.35        | 13.43        | 11.01        | -       | <b>12.59</b> |
|       | <b>Standards</b>    |              |              |              |              |         |              |
| 1     | CoA 92081           | 12.17        | 14.17        | 13.04        | 12.93        | -       | <b>13.08</b> |
| 2     | CoC 01061           | 12.58        | 13.69        | 13.03        | 12.83        | -       | <b>13.03</b> |
| 3     | CoOr 03151          | 12.18        | 14.19        | 12.97        | 11.10        | -       | <b>12.61</b> |
|       | <b>General mean</b> | <b>12.48</b> | <b>14.13</b> | <b>13.14</b> | <b>11.69</b> | -       | <b>12.86</b> |
|       | SE                  | 0.38         | 0.16         | 0.07         | 0.14         | -       |              |
|       | CD (0.05)           | 1.16         | 0.34         | 0.22         | 0.42         | -       |              |
|       | CV                  | 6.16         | 1.61         | 1.11         | 2.38         | -       |              |



**Table 3.4.8 Extraction % at harvest**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 17321           | 52.29          | 60.92         | 52.73        | 55.50           | -           | <b>55.36</b> |
| 2     | CoA 17323           | 49.91          | 59.20         | 53.22        | 46.25           | -           | <b>52.15</b> |
| 3     | CoC 17336           | 50.30          | 62.41         | 53.07        | 60.00           | -           | <b>56.45</b> |
|       | <b>Standards</b>    |                |               |              |                 |             |              |
| 1     | CoA 92081           | 52.03          | 58.99         | 52.13        | 52.25           | -           | <b>53.85</b> |
| 2     | CoC 01061           | 55.90          | 58.32         | 51.77        | 56.25           | -           | <b>55.56</b> |
| 3     | CoOr 03151          | 50.59          | 56.96         | 52.99        | 51.75           | -           | <b>53.07</b> |
|       | <b>General mean</b> | <b>51.84</b>   | <b>59.47</b>  | <b>52.65</b> | <b>53.66</b>    | -           | <b>54.41</b> |
|       | SE                  | 2.65           | 2.40          | 0.16         | 1.87            | -           |              |
|       | CD (0.05)           | 8.00           | 5.11          | 0.47         | 5.65            | -           |              |
|       | CV                  | 10.24          | 5.71          | 0.59         | 6.98            | -           |              |

**Table 3.4.9 Fibre % at harvest**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 17321           | 13.18          | 13.15         | 13.87        | 13.25           | -           | <b>13.36</b> |
| 2     | CoA 17323           | 13.63          | 13.06         | 13.67        | 13.43           | -           | <b>13.45</b> |
| 3     | CoC 17336           | 15.13          | 13.23         | 13.00        | 12.73           | -           | <b>13.52</b> |
|       | <b>Standards</b>    |                |               |              |                 |             |              |
| 1     | CoA 92081           | 16.13          | 12.88         | 13.91        | 13.25           | -           | <b>14.04</b> |
| 2     | CoC 01061           | 16.68          | 12.93         | 13.76        | 13.50           | -           | <b>14.22</b> |
| 3     | CoOr 03151          | 13.95          | 12.89         | 13.51        | 13.03           | -           | <b>13.35</b> |
|       | <b>General mean</b> | <b>14.78</b>   | <b>13.02</b>  | <b>13.62</b> | <b>13.19</b>    | -           | <b>13.65</b> |
|       | SE                  | 1.17           | 0.11          | 0.11         | 0.13            | -           |              |
|       | CD (0.05)           | 3.54           | 0.23          | 0.34         | 0.39            | -           |              |
|       | CV                  | 15.88          | 1.19          | 1.64         | 1.96            | -           |              |

**Table 3.4.10 NMC ('000/ha) at harvest**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru  | Mean          |
|-------|---------------------|----------------|---------------|---------------|-----------------|--------------|---------------|
| 1     | CoA 17321           | 100.54         | 117.76        | 107.75        | 107.75          | 97.38        | <b>106.24</b> |
| 2     | CoA 17323           | 84.57          | 117.01        | 104.76        | 99.78           | 66.36        | <b>94.50</b>  |
| 3     | CoC 17336           | 89.43          | 119.53        | 110.99        | 114.00          | 76.39        | <b>102.07</b> |
|       | <b>Standards</b>    |                |               |               |                 |              |               |
| 1     | CoA 92081           | 108.18         | 111.96        | 107.65        | 112.50          | 90.97        | <b>106.25</b> |
| 2     | CoC 01061           | 125.77         | 114.76        | 101.93        | 116.00          | 104.01       | <b>112.49</b> |
| 3     | CoOr 03151          | 107.56         | 107.48        | 111.88        | 110.00          | 75.39        | <b>102.46</b> |
|       | <b>General mean</b> | <b>102.68</b>  | <b>114.75</b> | <b>107.49</b> | <b>110.01</b>   | <b>85.08</b> | <b>104.00</b> |
|       | SE                  | 5.55           | 3.19          | 2.19          | 5.34            | 5.11         |               |
|       | CD (0.05)           | 16.72          | 6.80          | 6.61          | 16.08           | 14.94        |               |
|       | CV                  | 10.81          | 3.93          | 4.08          | 9.70            | 12.00        |               |

**Table 3.4.11 Stalk length (cm) at harvest**

| S. No | Entry               | Anaka palle   | Cuddalore     | Naya garh     | Nelli kuppam  | Vuyyuru       | Mean          |
|-------|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1     | CoA 17321           | 229.83        | 237.00        | 349.50        | 234.50        | 239.70        | <b>258.11</b> |
| 2     | CoA 17323           | 229.00        | 233.00        | 355.80        | 211.25        | 207.80        | <b>247.37</b> |
| 3     | CoC 17336           | 217.92        | 250.00        | 353.50        | 286.50        | 262.50        | <b>274.08</b> |
|       | <b>Standards</b>    |               |               |               |               |               |               |
| 1     | CoA 92081           | 222.50        | 227.00        | 330.50        | 247.75        | 248.40        | <b>255.23</b> |
| 2     | CoC 01061           | 229.33        | 237.00        | 312.50        | 238.75        | 261.60        | <b>255.84</b> |
| 3     | CoOr 03151          | 229.50        | 229.00        | 361.50        | 286.75        | 268.10        | <b>274.97</b> |
|       | <b>General mean</b> | <b>226.35</b> | <b>236.00</b> | <b>343.90</b> | <b>250.91</b> | <b>248.00</b> | <b>261.03</b> |
|       | SE                  | 4.61          | 5.79          | 7.21          | 13.27         | 10.25         |               |
|       | CD (0.05)           | 13.88         | 12.35         | 21.71         | 40.17         | 29.98         |               |
|       | CV                  | 4.07          | 3.48          | 4.19          | 10.62         | 8.30          |               |

**Table 3.4.12 Stalk diameter (cm) at harvest**

| S. No | Entry               | Anaka palle | Cuddalore   | Naya garh   | Nelli kuppam | Vuyyuru     | Mean        |
|-------|---------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| 1     | CoA 17321           | 2.30        | 3.10        | 2.63        | 2.83         | 2.61        | <b>2.69</b> |
| 2     | CoA 17323           | 2.64        | 3.10        | 2.77        | 3.00         | 2.67        | <b>2.84</b> |
| 3     | CoC 17336           | 2.42        | 3.30        | 2.50        | 2.95         | 2.71        | <b>2.78</b> |
|       | <b>Standards</b>    |             |             |             |              |             |             |
| 1     | CoA 92081           | 2.29        | 2.90        | 2.32        | 2.78         | 2.89        | <b>2.64</b> |
| 2     | CoC 01061           | 2.42        | 2.70        | 2.40        | 2.00         | 2.17        | <b>2.34</b> |
| 3     | CoOr 03151          | 2.30        | 2.90        | 2.25        | 2.80         | 2.63        | <b>2.58</b> |
|       | <b>General mean</b> | <b>2.33</b> | <b>3.00</b> | <b>2.48</b> | <b>2.73</b>  | <b>2.61</b> | <b>2.63</b> |
|       | SE                  | 0.10        | 0.14        | 0.05        | 0.15         | 0.06        |             |
|       | CD (0.05)           | 0.31        | 0.29        | 0.15        | 0.44         | 0.18        |             |
|       | CV                  | 8.81        | 6.42        | 4.01        | 10.79        | 4.60        |             |

**Table 3.4.13 Single cane weight (kg) at harvest**

| S. No | Entry               | Anaka palle | Cuddalore   | Naya garh   | Nelli kuppam | Vuyyuru     | Mean        |
|-------|---------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| 1     | CoA 17321           | 1.26        | 1.32        | 1.46        | 1.09         | 1.12        | <b>1.25</b> |
| 2     | CoA 17323           | 1.25        | 1.34        | 1.50        | 1.19         | 1.28        | <b>1.31</b> |
| 3     | CoC 17336           | 1.25        | 1.41        | 1.31        | 1.34         | 1.35        | <b>1.33</b> |
|       | <b>Standards</b>    |             |             |             |              |             |             |
| 1     | CoA 92081           | 1.12        | 1.24        | 1.47        | 1.28         | 1.43        | <b>1.31</b> |
| 2     | CoC 01061           | 0.90        | 1.16        | 1.55        | 0.73         | 0.96        | <b>1.06</b> |
| 3     | CoOr 03151          | 1.26        | 1.28        | 1.60        | 1.26         | 1.37        | <b>1.35</b> |
|       | <b>General mean</b> | <b>1.17</b> | <b>1.29</b> | <b>1.48</b> | <b>1.15</b>  | <b>1.25</b> | <b>1.27</b> |
|       | SE                  | 0.05        | 0.06        | 0.03        | 0.69         | 0.04        |             |
|       | CD (0.05)           | 0.16        | 0.13        | 0.10        | 0.21         | 0.13        |             |
|       | CV                  | 9.28        | 6.93        | 4.58        | 11.96        | 7.10        |             |

**Table 3.4.14 CCS % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 17321           | 9.61           | 10.41         | 11.83        | 7.91            | -           | <b>9.94</b>  |
| 2     | CoA 17323           | 9.10           | 10.72         | 11.56        | 10.13           | -           | <b>10.38</b> |
| 3     | CoC 17336           | 8.84           | 10.81         | 11.85        | 12.54           | -           | <b>11.01</b> |
|       | <b>Standards</b>    |                |               |              |                 |             |              |
| 1     | CoA 92081           | 10.08          | 10.66         | 11.47        | 11.12           | -           | <b>10.83</b> |
| 2     | CoC 01061           | 9.74           | 10.19         | 11.70        | 10.66           | -           | <b>10.57</b> |
| 3     | CoOr 03151          | 8.98           | 10.59         | 11.46        | 9.12            | -           | <b>10.04</b> |
|       | <b>General mean</b> | <b>9.39</b>    | <b>10.56</b>  | <b>11.64</b> | <b>10.24</b>    | -           | <b>10.46</b> |
|       | SE                  | 0.38           | 0.23          | 0.12         | 0.15            | -           |              |
|       | CD (0.05)           | 1.14           | 0.49          | NS           | 0.46            | -           |              |
|       | CV                  | 8.05           | 3.08          | 2.03         | 2.97            | -           |              |

**Table 3.4.15 Sucrose % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 17321           | 14.12          | 14.88         | 17.18        | 12.46           | -           | <b>14.66</b> |
| 2     | CoA 17323           | 13.51          | 15.49         | 16.82        | 15.15           | -           | <b>15.24</b> |
| 3     | CoC 17336           | 13.12          | 15.55         | 17.19        | 18.15           | -           | <b>16.00</b> |
|       | <b>Standards</b>    |                |               |              |                 |             |              |
| 1     | CoA 92081           | 14.59          | 15.2          | 16.85        | 16.42           | -           | <b>15.77</b> |
| 2     | CoC 01061           | 14.30          | 14.57         | 16.87        | 15.74           | -           | <b>15.37</b> |
| 3     | CoOr 03151          | 13.19          | 15.26         | 16.61        | 13.61           | -           | <b>14.67</b> |
|       | <b>General mean</b> | <b>13.81</b>   | <b>15.16</b>  | <b>16.92</b> | <b>15.25</b>    | -           | <b>15.29</b> |
|       | SE                  | 0.45           | 0.24          | 0.10         | 0.20            | -           |              |
|       | CD (0.05)           | 1.35           | 0.51          | 0.30         | 0.62            | -           |              |
|       | CV                  | 6.47           | 2.22          | 1.19         | 2.68            | -           |              |

**Table 3.4.16 Brix % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 17321           | 19.26          | 16.41         | 19.62        | 16.52           | -           | <b>17.95</b> |
| 2     | CoA 17323           | 18.63          | 17.50         | 19.28        | 18.32           | -           | <b>18.43</b> |
| 3     | CoC 17336           | 17.74          | 17.40         | 19.56        | 20.56           | -           | <b>18.82</b> |
|       | <b>Standards</b>    |                |               |              |                 |             |              |
| 1     | CoA 92081           | 18.41          | 16.68         | 19.71        | 19.37           | -           | <b>18.54</b> |
| 2     | CoC 01061           | 19.14          | 16.07         | 18.97        | 18.59           | -           | <b>18.19</b> |
| 3     | CoOr 03151          | 18.02          | 17.15         | 18.90        | 16.39           | -           | <b>17.62</b> |
|       | <b>General mean</b> | <b>18.53</b>   | <b>16.87</b>  | <b>19.34</b> | <b>18.29</b>    | -           | <b>18.26</b> |
|       | SE                  | 0.43           | 0.16          | 0.12         | 0.21            | -           |              |
|       | CD (0.05)           | 1.29           | 0.34          | 0.36         | 0.65            | -           |              |
|       | CV                  | 4.61           | 1.34          | 1.25         | 2.35            | -           |              |

**Table 3.4.17 Purity % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoA 17321           | 85.57          | 90.66         | 87.59        | 75.43           | -           | <b>84.81</b> |
| 2     | CoA 17323           | 83.74          | 88.47         | 87.25        | 82.68           | -           | <b>85.54</b> |
| 3     | CoC 17336           | 83.86          | 89.35         | 87.90        | 88.26           | -           | <b>87.34</b> |
|       | <b>Standards</b>    |                |               |              |                 |             |              |
| 1     | CoA 92081           | 88.21          | 91.11         | 85.52        | 84.73           | -           | <b>87.39</b> |
| 2     | CoC 01061           | 85.65          | 90.63         | 88.92        | 84.69           | -           | <b>87.47</b> |
| 3     | CoOr 03151          | 85.34          | 88.98         | 87.92        | 83.02           | -           | <b>86.32</b> |
|       | <b>General mean</b> | <b>85.40</b>   | <b>89.87</b>  | <b>87.52</b> | <b>83.13</b>    | -           | <b>86.48</b> |
|       | SE                  | 1.77           | 1.36          | 0.85         | 0.44            | -           |              |
|       | CD (0.05)           | 5.33           | 2.90          | NS           | 1.32            | -           |              |
|       | CV                  | 4.14           | 2.14          | 1.94         | 1.05            | -           |              |

**Table 3.4.18 Number of shoots ('000/ha) at 240 days**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru  | Mean          |
|-------|---------------------|----------------|---------------|---------------|-----------------|--------------|---------------|
| 1     | CoA 17321           | 115.66         | 123.77        | 114.61        | 136.00          | 102.08       | <b>118.42</b> |
| 2     | CoA 17323           | 87.65          | 123.52        | 110.56        | 106.75          | 77.01        | <b>101.10</b> |
| 3     | CoC 17336           | 88.81          | 125.80        | 120.21        | 130.44          | 86.81        | <b>110.41</b> |
|       | <b>Standards</b>    |                |               |               |                 |              |               |
| 1     | CoA 92081           | 111.34         | 118.97        | 115.50        | 132.25          | 98.61        | <b>115.33</b> |
| 2     | CoC 01061           | 137.89         | 122.27        | 107.66        | 138.54          | 107.18       | <b>122.71</b> |
| 3     | CoOr 03151          | 118.21         | 115.25        | 117.01        | 134.00          | 84.34        | <b>113.76</b> |
|       | <b>General mean</b> | <b>109.93</b>  | <b>121.60</b> | <b>114.26</b> | <b>129.66</b>   | <b>92.67</b> | <b>113.62</b> |
|       | SE                  | 4.35           | 2.92          | 1.96          | 6.70            | 5.02         |               |
|       | CD (0.05)           | 13.11          | 6.23          | 5.89          | 20.19           | 14.67        |               |
|       | CV                  | 7.91           | 3.40          | 3.42          | 10.33           | 10.80        |               |

**Table 3.4.19 Number of tillers ('000/ha) at 120 days**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru   | Mean          |
|-------|---------------------|----------------|---------------|---------------|-----------------|---------------|---------------|
| 1     | CoA 17321           | 128.94         | 128.70        | 121.99        | 177.00          | 114.12        | <b>134.15</b> |
| 2     | CoA 17323           | 105.24         | 128.45        | 117.95        | 133.25          | 100.93        | <b>117.16</b> |
| 3     | CoC 17336           | 92.27          | 130.23        | 127.53        | 162.47          | 104.40        | <b>123.38</b> |
|       | <b>Standards</b>    |                |               |               |                 |               |               |
| 1     | CoA 92081           | 117.84         | 124.65        | 122.95        | 160.75          | 120.83        | <b>129.40</b> |
| 2     | CoC 01061           | 153.06         | 127.95        | 116.44        | 158.00          | 125.08        | <b>136.11</b> |
| 3     | CoOr 03151          | 121.11         | 122.93        | 124.67        | 171.00          | 97.84         | <b>127.51</b> |
|       | <b>General mean</b> | <b>119.74</b>  | <b>127.15</b> | <b>121.92</b> | <b>160.41</b>   | <b>110.53</b> | <b>127.95</b> |
|       | SE                  | 6.74           | 2.24          | 1.84          | 5.98            | 6.04          |               |
|       | CD (0.05)           | 20.30          | 6.74          | 5.56          | 18.04           | 17.68         |               |
|       | CV                  | 11.25          | 3.52          | 3.03          | 7.46            | 10.90         |               |

**Table 3.4.20 Germination % at 30 days**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru  | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|--------------|--------------|
| 1     | CoA 17321           | 61.89          | 76.33         | 67.11        | 74.00           | 58.22        | <b>67.51</b> |
| 2     | CoA 17323           | 61.41          | 74.55         | 59.28        | 75.00           | 58.85        | <b>65.82</b> |
| 3     | CoC 17336           | 56.34          | 81.15         | 63.27        | 80.00           | 57.87        | <b>67.73</b> |
|       | <b>Standards</b>    |                |               |              |                 |              |              |
| 1     | CoA 92081           | 70.79          | 72.03         | 55.03        | 74.00           | 69.27        | <b>68.22</b> |
| 2     | CoC 01061           | 91.02          | 81.05         | 64.76        | 75.00           | 56.71        | <b>73.71</b> |
| 3     | CoOr 03151          | 81.12          | 74.05         | 65.68        | 74.75           | 58.39        | <b>70.80</b> |
|       | <b>General mean</b> | <b>70.43</b>   | <b>76.53</b>  | <b>62.52</b> | <b>75.45</b>    | <b>59.89</b> | <b>68.96</b> |
|       | SE                  | 4.07           | 2.99          | 2.35         | 3.23            | 4.16         |              |
|       | CD (0.05)           | 12.27          | 6.37          | 7.08         | 9.73            | 12.18        |              |
|       | CV                  | 11.56          | 5.52          | 7.52         | 8.56            | 13.90        |              |

**Table 3.4.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| Entries          | Nellikuppam | Cuddalore | Vuyyuru | Anakapalle | Nayagarh |
|------------------|-------------|-----------|---------|------------|----------|
| CoA 17321        | On par      | On par    | Better  | On par     | On par   |
| CoA 17323        | Better      | On par    | On par  | On par     | On par   |
| CoC 17336        | Better      | Better    | On par  | Better     | On par   |
| <b>Standards</b> |             |           |         |            |          |
| CoA 92081        | On par      | On par    | On par  | Better     | Better   |
| CoC 01061        | Better      | Better    | Better  | Poor       | Better   |
| CoOr 03151       | Best        | Best      | Best    | Best       | Best     |

### 3.5 INITIAL VARIETAL TRIAL (EARLY)

|               |   |
|---------------|---|
| Centres (5)   | Anakapalle, Cuddalore, Nayagarh, Nellikuppam and Vuyyuru  |
| Entries (3)   | 1. CoV 18356 (CoC 90063 x Co 94008 )<br>2. CoV 18357 (CoA 90081 x Co 1148)<br>3. CoOr 18346 (CoA 7602 PC) |
| Standards (3) | CoA 11321, CoC 01061 and CoOr 03151   |
| Design        | Randomized Block Design   |
| Replications  | Four  |
| Plot size     | Gross : 6.0 m x 8R x 0.90 m<br>Net : 5.0 m x 6R x 0.90 m  |
| Bud rate      | 12 buds/ metre  |
| Planting time | 1 <sup>st</sup> fortnight of January  |
| Crop duration | 10 months   |

#### Results of the previous year

The entries were under multiplication in the respective centres.

#### Results of the current year

IVT (Early) was conducted with three entries and three standards in all the five centres of east coast zone. CoV 18357 (15.33 t/ha) was the best entry for CCS yield followed by CoV 18356 (15.32 t/ha) while the best standard CoOr 13151 recorded 13.45 t/ha. The standard CoOr 13151 was the best in this trial that recorded the highest cane yield of 116.80 t/ha. CoV 18356 and CoV 18357 were found to be superior for CCS and cane yield over the best standard CoOr 03151 across locations. The standard CoC 01061 was the best in this trial that recorded the highest CCS of 12.11%. CoV 18356 and CoV 18357 were found to be superior to the best standard CoC 01061 for CCS % and juice sucrose %. CoV 18356 recorded the maximum CCS % and sucrose % 12.90 and 18.49 respectively. Two entries *viz.*, CoV 18356 and CoV 18357 were identified as qualifying entries for sugar yield, CCS % and sucrose % in the zone to the standard CoOr 03151. Further details are presented in tables 3.5.1 to 3.5.20.

**Table 3.5.1 CCS (t/ha) at harvest**

| S. No                                      | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyy<br>uru  | Mean         | Rank     |
|--|---------------------|----------------|---------------|---------------|-----------------|--------------|--------------|----------|
| 1  | CoV 18356           | 14.52          | 16.83*        | 11.78         | 16.54*          | 16.93        | <b>15.32</b> | <b>2</b> |
| 2  | CoV 18357           | 16.63*         | 17.26*        | 11.04         | 14.62*          | 17.08        | <b>15.33</b> | <b>1</b> |
| 3  | CoOr 18346          | 4.79           | 17.38*        | 12.81*        | 9.71            | 13.16        | <b>11.57</b> |          |
|  | <b>Standards</b>    |                |               |               |                 |              |              |          |
| 1  | CoA 11321           | 13.83          | 15.39         | 10.67         | 11.09           | 13.56        | <b>12.91</b> |          |
| 2  | CoC 01061           | 9.34           | 15.16         | 10.40         | 9.65            | 17.01        | <b>12.31</b> |          |
| 3  | CoOr 03151          | 11.94          | 16.32         | 11.53         | 12.63           | 14.84        | <b>13.45</b> | <b>3</b> |
|  | <b>General mean</b> | <b>11.84</b>   | <b>16.39</b>  | <b>11.37</b>  | <b>12.37</b>    | <b>15.43</b> | <b>13.48</b> |          |
|  | SE                  | 0.62           | 0.45          | 0.33          | 0.59            | 0.98         |              |          |
|  | CD (0.05)           | 1.88           | 0.97          | 1.00          | 1.79            | 2.86         |              |          |
|  | CV                  | 10.52          | 3.92          | 5.85          | 9.60            | 12.70        |              |          |
| <b>Qualifying entries at each location</b> |                     |                |               |               |                 |              |              |          |
|  | 1                   | CoV 18357      | -             | CoOr<br>18346 | CoV 18356       | -            |              |          |
|  | 2                   | -              | -             | -             | CoV 18357       | -            |              |          |
|  | 3                   | -              | -             | -             | -               | -            |              |          |

\*Significant over the best standard

**No. of locations where an entry recorded 10 % improvement over the best standard:**

CoV 18356 (1) CoV 18357 (2) CoOr 18346 (1)

**Performance of the entries across locations:** Two test entries (CoV 18356, CoV 18357) recorded higher CCS yield over the best standard CoOr 03151 (13.45 t/ha) across locations. CoV 18357 (15.33 t/ha) was the best entry in the trial that recorded 13.93 % improvement followed by CoV 18356 (15.32 t/ha) with an improvement of 13.88 % over the standard CoOr 03151.

**Table 3.5.2 Cane yield (t/ha) at harvest**

| S. No | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyy<br>uru   | Mean          | Rank     |
|-------|--|----------------|---------------|---------------|-----------------|---------------|---------------|----------|
| 1     | CoV 18356                                  | 109.39         | 131.13        | 101.94        | 120.52          | 128.94        | <b>118.38</b> | <b>2</b> |
| 2     | CoV 18357                                  | 122.37         | 133.85        | 95.09         | 113.95          | 134.49        | <b>119.95</b> | <b>1</b> |
| 3     | CoOr 18346                                 | 40.77          | 136.55*       | 108.67*       | 91.16           | 127.31        | <b>100.89</b> |          |
|       | <b>Standards</b>                           |                |               |               |                 |               |               |          |
| 1     | CoA 11321                                  | 116.59         | 122.50        | 93.09         | 94.86           | 126.50        | <b>110.71</b> |          |
| 2     | CoC 01061                                  | 78.37          | 122.73        | 91.33         | 80.97           | 130.32        | <b>100.74</b> |          |
| 3     | CoOr 03151                                 | 103.52         | 128.93        | 98.78         | 126.51          | 126.27        | <b>116.80</b> | <b>3</b> |
|       | <b>General mean</b>                        | <b>95.17</b>   | <b>129.28</b> | <b>98.15</b>  | <b>104.66</b>   | <b>128.97</b> | <b>111.25</b> |          |
|       | SE   | 5.09           | 3.15          | 2.87          | 4.68            | 7.99          |               |          |
|       | CD (0.05)                                  | 15.33          | 6.71          | 8.64          | 14.10           | 23.38         |               |          |
|       | CV   | 10.69          | 3.44          | 5.84          | 8.94            | 12.40         |               |          |
|       | <b>Qualifying entries at each location</b> |                |               |               |                 |               |               |          |
|       | 1  | -              | -             | CoOr<br>18346 | -               | -             |               |          |
|       | 2  | -              | -             | -             | -               | -             |               |          |
|       | 3  | -              | -             | -             | -               | -             |               |          |

\*Significant over the best standard

**No. of locations where an entry recorded 10 % improvement over the best standard:**  
CoOr 18346 (1)

**Performance of the entries across locations:** CoV 18357 was the best entry for cane yield (119.95 t/ha) which recorded 2.69 % improvement over the best standard CoOr 03151 (116.80 t/ha). CoV 18356 with 118.38 t/ha cane yield recorded 1.35 % improvement over the best standard. None of the entries recorded more than 10 % improvement over the best standard CoOr 03151 across locations.



**Table 3.5.3 CCS % at 10<sup>th</sup> month**

| S. No | Entry                                      | Anakapalle   | Cuddalore    | Naya garh    | Nellikuppam  | Vuyyuru      | Mean         | Rank     |
|-------|--|--------------|--------------|--------------|--------------|--------------|--------------|----------|
| 1     | CoV 18356                                  | 13.24*       | 12.83        | 11.55        | 13.75*       | 13.13        | <b>12.90</b> | <b>1</b> |
| 2     | CoV 18357                                  | 13.59*       | 12.89*       | 11.60        | 12.79*       | 12.70        | <b>12.71</b> | <b>2</b> |
| 3     | CoOr 18346                                 | 11.64        | 12.73        | 11.79        | 10.64        | 10.34        | <b>11.43</b> |          |
|       | <b>Standards</b>                           |              |              |              |              |              |              |          |
| 1     | CoA 11321                                  | 11.85        | 12.55        | 11.46        | 11.72        | 10.72        | <b>11.66</b> |          |
| 2     | CoC 01061                                  | 11.88        | 12.36        | 11.36        | 11.91        | 13.06        | <b>12.11</b> | <b>3</b> |
| 3     | CoOr 03151                                 | 11.54        | 12.65        | 11.68        | 10.00        | 11.75        | <b>11.52</b> |          |
|       | <b>General mean</b>                        | <b>12.29</b> | <b>12.67</b> | <b>11.57</b> | <b>11.80</b> | <b>11.95</b> | <b>12.06</b> |          |
|       | SE   | 0.37         | 0.15         | 0.04         | 0.18         | 0.13         |              |          |
|       | CD (0.05)                                  | 1.12         | 0.33         | 0.11         | 0.56         | 0.18         |              |          |
|       | CV   | 6.03         | 1.71         | 0.60         | 3.12         | 2.20         |              |          |
|       | <b>Qualifying entries at each location</b> |              |              |              |              |              |              |          |
|       | 1  | CoV 18356    | -            | -            | CoV 18356    | -            |              |          |
|       | 2  | CoV 18357    | -            | -            | CoV 18357    | -            |              |          |
|       | 3  | -            | -            | -            | -            | -            |              |          |

\*Significant over the best standard

**No. of locations where an entry recorded 5 % improvement over the best standard:**

CoV 18356 (2) CoV 18357 (2)

**Performance of the entries across locations:**

The entry CoV 18356 recorded the highest mean CCS % of 12.90 followed by CoV 18357 (12.71 %) while the best standard CoC 01061 recorded 12.11 % followed by CoOr 03151 ( 11.52 %). CoV 18356 and CoV 18357 recorded 6.49 % and 4.95 % improvement respectively over the best standard CoC 01061 and both the entries recorded more than 5.0 % improvement for CCS % over CoOr 03151 across the zone.

**Table 3.5.4 Sucrose % at 10<sup>th</sup> month**

| S. No | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru  | Mean         | Rank     |
|-------|--|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1     | CoV 18356                                  | 18.64          | 18.49         | 17.00        | 19.37*          | 18.93        | <b>18.49</b> | <b>1</b> |
| 2     | CoV 18357                                  | 19.47*         | 18.72*        | 16.96        | 17.92*          | 18.03        | <b>18.22</b> | <b>2</b> |
| 3     | CoOr 18346                                 | 16.57          | 18.54         | 17.38*       | 15.39           | 15.04        | <b>16.58</b> |          |
|       | <b>Standards</b>                           |                |               |              |                 |              |              |          |
| 1     | CoA 11321                                  | 17.06          | 18.27         | 16.87        | 16.89           | 15.72        | <b>16.96</b> |          |
| 2     | CoC 01061                                  | 17.14          | 17.81         | 16.78        | 17.05           | 18.65        | <b>17.49</b> | <b>3</b> |
| 3     | CoOr 03151                                 | 16.60          | 18.29         | 17.15        | 14.63           | 16.96        | <b>16.73</b> |          |
|       | <b>General mean</b>                        | <b>17.58</b>   | <b>18.35</b>  | <b>17.02</b> | <b>16.87</b>    | <b>17.22</b> | <b>17.41</b> |          |
|       | SE   | 0.52           | 0.14          | 0.04         | 0.24            | 0.18         |              |          |
|       | CD (0.05)                                  | 1.55           | 0.29          | 0.13         | 0.72            | 0.53         |              |          |
|       | CV   | 5.86           | 1.06          | 0.51         | 2.83            | 2.10         |              |          |
|       | <b>Qualifying entries at each location</b> |                |               |              |                 |              |              |          |
|       | 1  | CoV 18356      | -             | -            | CoV 18356       | -            | -            |          |
|       | 2  | CoV 18357      | -             | -            | CoV 18357       | -            | -            |          |
|       | 3  | -              | -             | -            | -               | -            | -            |          |

\*Significant over the best standard

**No. of locations where an entry recorded 5 % improvement over the best standard:**

CoV 18356 (2) CoV 18357 (2)

**Performance of the entries across locations:** The entry CoV 18356 recorded the highest sucrose content of 18.49 % followed by CoV 18357 (18.22 %) across the centres while the best standard CoC 01061 recorded 17.49 %. The entry CoV 18356 recorded 5.71 % improvement compared to the best standard CoC 01061. The entries CoV 18356 and CoV 18357 recorded more than 5 % improvement over the standard CoOr 03151 for sucrose % across the zone.

**Table 3.5.5 Brix % at 10<sup>th</sup> month**

| S. No | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nellikuppam  | Vuyyuru      | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | CoV 18356           | 19.90        | 20.78        | 19.94        | 20.72        | 21.28        | <b>20.52</b> |
| 2     | CoV 18357           | 21.63        | 21.37        | 19.63        | 18.89        | 19.62        | <b>20.23</b> |
| 3     | CoOr 18346          | 18.15        | 21.28        | 20.47        | 17.44        | 17.24        | <b>18.92</b> |
|       | <b>Standards</b>    |              |              |              |              |              |              |
| 1     | CoA 11321           | 19.12        | 20.96        | 19.78        | 18.96        | 18.33        | <b>19.43</b> |
| 2     | CoC 01061           | 19.32        | 20.00        | 19.83        | 18.86        | 20.55        | <b>19.71</b> |
| 3     | CoOr 03151          | 18.57        | 20.67        | 20.06        | 16.96        | 19.12        | <b>19.08</b> |
|       | <b>General mean</b> | <b>19.45</b> | <b>20.84</b> | <b>19.95</b> | <b>18.63</b> | <b>19.36</b> | <b>19.65</b> |
|       | SE                  | 0.59         | 0.27         | 0.07         | 0.22         | 0.22         |              |
|       | CD (0.05)           | 1.79         | 0.58         | 0.22         | 0.68         | 0.66         |              |
|       | CV                  | 6.11         | 1.85         | 0.72         | 2.42         | 2.30         |              |

**Table 3.5.6 Purity % at 10<sup>th</sup> month**

| S. No | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nellikuppam  | Vuyyuru      | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | CoV 18356           | 93.61        | 89.00        | 85.28        | 93.49        | 88.96        | <b>90.07</b> |
| 2     | CoV 18357           | 90.13        | 87.64        | 86.40        | 94.84        | 91.90        | <b>90.18</b> |
| 3     | CoOr 18346          | 91.27        | 87.14        | 84.92        | 88.26        | 87.24        | <b>87.77</b> |
|       | <b>Standards</b>    |              |              |              |              |              |              |
| 1     | CoA 11321           | 89.17        | 87.21        | 85.26        | 89.08        | 85.76        | <b>87.30</b> |
| 2     | CoC 01061           | 88.81        | 89.02        | 84.63        | 90.36        | 90.75        | <b>88.71</b> |
| 3     | CoOr 03151          | 89.38        | 88.51        | 85.53        | 86.24        | 88.70        | <b>87.67</b> |
|       | <b>General mean</b> | <b>90.40</b> | <b>88.08</b> | <b>85.34</b> | <b>90.38</b> | <b>88.95</b> | <b>88.63</b> |
|       | SE                  | 1.03         | 1.25         | 0.23         | 0.46         | 0.41         |              |
|       | CD (0.05)           | 3.12         | 2.67         | 0.70         | 1.38         | 1.20         |              |
|       | CV                  | 2.29         | 2.01         | 0.55         | 1.01         | 0.90         |              |

**Table 3.5.7 Pol % cane at harvest**

| S. No | Entry               | Anakapalle   | Cuddalore    | Naya garh    | Nellikuppam  | Vuyyuru | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1     | CoV 18356           | 15.92        | 14.24        | 12.96        | 14.98        | -       | <b>14.53</b> |
| 2     | CoV 18357           | 16.25        | 14.40        | 13.03        | 13.98        | -       | <b>14.42</b> |
| 3     | CoOr 18346          | 14.52        | 14.24        | 13.42        | 11.85        | -       | <b>13.51</b> |
|       | <b>Standards</b>    |              |              |              |              | -       |              |
| 1     | CoA 11321           | 14.88        | 14.09        | 12.84        | 13.03        | -       | <b>13.71</b> |
| 2     | CoC 01061           | 14.38        | 13.74        | 12.82        | 13.10        | -       | <b>13.51</b> |
| 3     | CoOr 03151          | 14.40        | 14.13        | 13.03        | 11.19        | -       | <b>13.19</b> |
|       | <b>General mean</b> | <b>15.06</b> | <b>14.14</b> | <b>13.02</b> | <b>13.02</b> | -       | <b>13.81</b> |
|       | SE                  | 0.45         | 0.11         | 0.04         | 0.19         | -       |              |
|       | CD (0.05)           | 1.35         | 0.23         | 0.13         | 0.56         | -       |              |
|       | CV                  | 5.96         | 1.06         | 0.66         | 2.86         | -       |              |

**Table 3.5.8 Extraction % at harvest**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoV 18356           | 52.45          | 64.75         | 52.44        | 57.13           | -           | <b>56.69</b> |
| 2     | CoV 18357           | 49.36          | 66.98         | 52.79        | 60.50           | -           | <b>57.41</b> |
| 3     | CoOr 18346          | 47.69          | 59.63         | 54.00        | 49.07           | -           | <b>52.60</b> |
|       | <b>Standards</b>    |                |               |              |                 | -           |              |
| 1     | CoA 11321           | 55.86          | 62.88         | 52.01        | 58.50           |             | <b>57.31</b> |
| 2     | CoC 01061           | 57.63          | 62.50         | 52.07        | 60.75           | -           | <b>58.24</b> |
| 3     | CoOr 03151          | 41.35          | 62.45         | 51.66        | 50.75           | -           | <b>51.55</b> |
|       | <b>General mean</b> | <b>50.72</b>   | <b>63.20</b>  | <b>52.49</b> | <b>56.11</b>    | -           | <b>55.63</b> |
|       | SE                  | 2.60           | 2.72          | 0.19         | 1.92            | -           |              |
|       | CD (0.05)           | 7.85           | 5.79          | 0.58         | 5.79            | -           |              |
|       | CV                  | 10.27          | 6.08          | 0.74         | 6.84            | -           |              |

**Table 3.5.9 Fibre % at harvest**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoV 18356           | 14.61          | 12.96         | 13.76        | 12.69           | -           | <b>13.51</b> |
| 2     | CoV 18357           | 16.56          | 13.07         | 13.17        | 11.97           | -           | <b>13.69</b> |
| 3     | CoOr 18346          | 12.39          | 13.21         | 12.79        | 13.02           | -           | <b>12.85</b> |
|       | <b>Standards</b>    |                |               |              |                 | -           |              |
| 1     | CoA 11321           | 12.79          | 12.87         | 13.86        | 12.85           |             | <b>13.09</b> |
| 2     | CoC 01061           | 16.12          | 12.85         | 13.62        | 13.11           | -           | <b>13.93</b> |
| 3     | CoOr 03151          | 13.22          | 12.74         | 13.86        | 13.50           | -           | <b>13.33</b> |
|       | <b>General mean</b> | <b>14.28</b>   | <b>12.95</b>  | <b>13.51</b> | <b>12.85</b>    | -           | <b>13.40</b> |
|       | SE                  | 0.21           | 0.10          | 0.14         | 0.13            | -           |              |
|       | CD (0.05)           | 0.63           | 0.21          | 0.42         | 0.40            | -           |              |
|       | CV                  | 2.93           | 1.07          | 2.05         | 2.09            | -           |              |

**Table 3.5.10 NMC ('000/ha) at harvest**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru  | Mean          |
|-------|---------------------|----------------|---------------|---------------|-----------------|--------------|---------------|
| 1     | CoV 18356           | 108.22         | 108.90        | 115.56        | 110.00          | 83.10        | <b>105.16</b> |
| 2     | CoV 18357           | 120.25         | 113.08        | 110.80        | 106.25          | 82.06        | <b>106.49</b> |
| 3     | CoOr 18346          | 70.37          | 117.48        | 116.53        | 105.50          | 82.29        | <b>98.43</b>  |
|       | <b>Standards</b>    |                |               |               |                 |              |               |
| 1     | CoA 11321           | 118.75         | 105.38        | 106.66        | 108.75          | 74.31        | <b>102.77</b> |
| 2     | CoC 01061           | 124.77         | 111.23        | 106.36        | 107.50          | 99.42        | <b>109.86</b> |
| 3     | CoOr 03151          | 112.62         | 103.85        | 110.60        | 109.00          | 77.89        | <b>102.79</b> |
|       | <b>General mean</b> | <b>109.16</b>  | <b>109.98</b> | <b>111.08</b> | <b>107.83</b>   | <b>83.18</b> | <b>104.25</b> |
|       | SE                  | 6.55           | 4.02          | 2.20          | 4.93            | 2.88         |               |
|       | CD (0.05)           | 19.73          | 8.57          | 6.62          | 14.88           | 8.41         |               |
|       | CV                  | 11.99          | 5.17          | 3.96          | 9.15            | 6.90         |               |

**Table 3.5.11 Stalk length (cm) at harvest**

| S. No | Entry               | Anaka palle   | Cuddalore     | Naya garh     | Nelli kuppam  | Vuyyuru       | Mean          |
|-------|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1     | CoV 18356           | 232.50        | 245.00        | 296.50        | 270.50        | 305.10        | <b>269.92</b> |
| 2     | CoV 18357           | 258.75        | 238.00        | 269.80        | 272.25        | 275.40        | <b>262.84</b> |
| 3     | CoOr 18346          | 180.75        | 264.00        | 315.00        | 281.50        | 303.20        | <b>268.89</b> |
|       | <b>Standards</b>    |               |               |               |               |               |               |
| 1     | CoA 11321           | 263.75        | 227.00        | 264.30        | 240.50        | 247.50        | <b>248.61</b> |
| 2     | CoC 01061           | 291.00        | 230.00        | 245.50        | 252.75        | 215.00        | <b>246.85</b> |
| 3     | CoOr 03151          | 245.00        | 208.00        | 250.00        | 272.25        | 250.00        | <b>245.05</b> |
|       | <b>General mean</b> | <b>245.29</b> | <b>235.00</b> | <b>273.50</b> | <b>264.95</b> | <b>266.03</b> | <b>256.95</b> |
|       | SE                  | 9.77          | 7.19          | 7.47          | 13.76         | 15.86         |               |
|       | CD (0.05)           | 29.44         | 15.33         | 22.50         | 41.49         | 46.41         |               |
|       | CV                  | 7.97          | 4.32          | 5.46          | 10.39         | 11.90         |               |

**Table 3.5.12 Stalk diameter (cm) at harvest**

| S. No | Entry               | Anaka palle | Cuddalore   | Naya garh   | Nelli kuppam | Vuyyuru     | Mean        |
|-------|---------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| 1     | CoV 18356           | 2.85        | 3.00        | 2.40        | 2.43         | 2.55        | <b>2.65</b> |
| 2     | CoV 18357           | 2.88        | 3.10        | 2.40        | 2.58         | 2.60        | <b>2.71</b> |
| 3     | CoOr 18346          | 1.79        | 3.20        | 2.70        | 2.75         | 2.72        | <b>2.63</b> |
|       | <b>Standards</b>    |             |             |             |              |             |             |
| 1     | CoA 11321           | 2.58        | 2.80        | 2.57        | 2.73         | 2.91        | <b>2.72</b> |
| 2     | CoC 01061           | 2.23        | 2.70        | 2.87        | 2.25         | 2.19        | <b>2.45</b> |
| 3     | CoOr 03151          | 2.05        | 2.80        | 2.64        | 2.88         | 2.66        | <b>2.61</b> |
|       | <b>General mean</b> | <b>2.40</b> | <b>2.90</b> | <b>2.59</b> | <b>2.60</b>  | <b>2.60</b> | <b>2.62</b> |
|       | SE                  | 0.09        | 0.09        | 0.07        | 0.13         | 0.08        |             |
|       | CD (0.05)           | 0.28        | 0.20        | 0.21        | 0.39         | 0.22        |             |
|       | CV                  | 7.83        | 4.49        | 5.25        | 9.96         | 5.80        |             |

**Table 3.5.13 Single cane weight (kg) at harvest**

| S. No | Entry               | Anaka palle | Cuddalore   | Naya garh   | Nelli kuppam | Vuyyuru     | Mean        |
|-------|---------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| 1     | CoV 18356           | 1.01        | 1.28        | 1.41        | 1.25         | 1.66        | <b>1.32</b> |
| 2     | CoV 18357           | 1.01        | 1.39        | 1.33        | 1.27         | 1.61        | <b>1.32</b> |
| 3     | CoOr 18346          | 0.58        | 1.44        | 1.58        | 1.02         | 1.62        | <b>1.25</b> |
|       | <b>Standards</b>    |             |             |             |              |             |             |
| 1     | CoA 11321           | 0.98        | 1.24        | 1.37        | 1.06         | 1.53        | <b>1.24</b> |
| 2     | CoC 01061           | 0.63        | 1.19        | 1.30        | 0.89         | 1.03        | <b>1.01</b> |
| 3     | CoOr 03151          | 0.92        | 1.33        | 1.58        | 1.53         | 1.49        | <b>1.37</b> |
|       | <b>General mean</b> | <b>0.86</b> | <b>1.31</b> | <b>1.43</b> | <b>1.17</b>  | <b>1.49</b> | <b>1.25</b> |
|       | SE                  | 0.03        | 0.05        | 0.04        | 0.75         | 0.05        |             |
|       | CD (0.05)           | 0.10        | 0.12        | 0.12        | 0.23         | 0.14        |             |
|       | CV                  | 7.70        | 5.88        | 5.45        | 12.85        | 6.30        |             |

**Table 3.5.14 CCS % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoV 18356           | 10.66          | 10.53         | 11.14        | 12.88           | -           | <b>11.30</b> |
| 2     | CoV 18357           | 10.76          | 10.77         | 11.29        | 10.97           | -           | <b>10.95</b> |
| 3     | CoOr 18346          | 11.10          | 10.53         | 11.50        | 11.29           | -           | <b>11.11</b> |
|       | <b>Standards</b>    |                |               |              |                 | -           |              |
| 1     | CoA 11321           | 10.63          | 10.21         | 11.12        | 11.45           |             | <b>10.85</b> |
| 2     | CoC 01061           | 10.77          | 10.11         | 11.00        | 11.18           | -           | <b>10.77</b> |
| 3     | CoOr 03151          | 10.71          | 10.35         | 11.26        | 9.63            | -           | <b>10.49</b> |
|       | <b>General mean</b> | <b>10.77</b>   | <b>10.42</b>  | <b>11.22</b> | <b>11.23</b>    | -           | <b>10.91</b> |
|       | SE                  | 0.37           | 0.26          | 0.45         | 0.18            | -           |              |
|       | CD (0.05)           | 1.12           | 0.56          | 0.15         | 0.54            | -           |              |
|       | CV                  | 6.87           | 3.54          | 0.86         | 3.19            | -           |              |

**Table 3.5.15 Sucrose % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoV 18356           | 15.49          | 15.62         | 16.55        | 18.46           | -           | <b>16.53</b> |
| 2     | CoV 18357           | 15.82          | 15.95         | 16.60        | 15.88           | -           | <b>16.06</b> |
| 3     | CoOr 18346          | 16.05          | 15.67         | 17.08        | 16.24           | -           | <b>16.26</b> |
|       | <b>Standards</b>    |                |               |              |                 | -           |              |
| 1     | CoA 11321           | 15.46          | 15.37         | 16.46        | 16.49           |             | <b>15.95</b> |
| 2     | CoC 01061           | 15.76          | 14.98         | 16.41        | 16.29           | -           | <b>15.86</b> |
| 3     | CoOr 03151          | 15.65          | 15.43         | 16.65        | 14.17           | -           | <b>15.48</b> |
|       | <b>General mean</b> | <b>15.71</b>   | <b>15.50</b>  | <b>16.63</b> | <b>16.25</b>    | -           | <b>16.02</b> |
|       | SE                  | 0.46           | 0.23          | 0.04         | 0.25            | -           |              |
|       | CD (0.05)           | 1.39           | 0.49          | 0.13         | 0.74            | -           |              |
|       | CV                  | 5.86           | 2.08          | 0.52         | 3.01            | -           |              |

**Table 3.5.16 Brix % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoV 18356           | 17.71          | 18.59         | 19.74        | 20.48           | -           | <b>19.13</b> |
| 2     | CoV 18357           | 18.51          | 18.93         | 19.45        | 18.02           | -           | <b>18.73</b> |
| 3     | CoOr 18346          | 18.16          | 18.8          | 20.39        | 18.17           | -           | <b>18.88</b> |
|       | <b>Standards</b>    |                |               |              |                 | -           |              |
| 1     | CoA 11321           | 17.71          | 18.85         | 19.55        | 18.53           |             | <b>18.66</b> |
| 2     | CoC 01061           | 18.28          | 17.83         | 19.79        | 18.72           | -           | <b>18.66</b> |
| 3     | CoOr 03151          | 18.10          | 18.55         | 19.70        | 16.60           | -           | <b>18.24</b> |
|       | <b>General mean</b> | <b>18.08</b>   | <b>18.59</b>  | <b>19.77</b> | <b>18.42</b>    | -           | <b>18.72</b> |
|       | SE                  | 0.41           | 0.26          | 0.09         | 0.25            | -           |              |
|       | CD (0.05)           | 1.25           | 0.55          | 0.26         | 0.77            | -           |              |
|       | CV                  | 4.57           | 1.95          | 0.87         | 2.76            | -           |              |

**Table 3.5.17 Purity % at 8 months**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean         |
|-------|---------------------|----------------|---------------|--------------|-----------------|-------------|--------------|
| 1     | CoV 18356           | 87.36          | 84.00         | 83.81        | 90.11           | -           | <b>86.32</b> |
| 2     | CoV 18357           | 85.52          | 84.28         | 85.38        | 88.15           | -           | <b>85.83</b> |
| 3     | CoOr 18346          | 88.39          | 83.41         | 83.77        | 89.37           | -           | <b>86.24</b> |
|       | <b>Standards</b>    |                |               |              |                 | -           |              |
| 1     | CoA 11321           | 87.28          | 81.56         | 84.24        | 89.02           |             | <b>85.53</b> |
| 2     | CoC 01061           | 86.21          | 84.05         | 82.97        | 87.00           | -           | <b>85.06</b> |
| 3     | CoOr 03151          | 86.47          | 83.23         | 84.55        | 85.30           | -           | <b>84.89</b> |
|       | <b>General mean</b> | <b>86.87</b>   | <b>83.42</b>  | <b>84.12</b> | <b>88.16</b>    | -           | <b>85.64</b> |
|       | SE                  | 1.28           | 1.85          | 0.41         | 0.31            | -           |              |
|       | CD (0.05)           | 3.86           | 3.94          | 1.25         | 0.94            | -           |              |
|       | CV                  | 2.95           | 3.13          | 0.98         | 0.71            | -           |              |

**Table 3.5.18 Number of shoots ('000/ha) at 240 days**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru  | Mean          |
|-------|---------------------|----------------|---------------|---------------|-----------------|--------------|---------------|
| 1     | CoV 18356           | 110.42         | 117.45        | 126.22        | 167.75          | 86.11        | <b>121.59</b> |
| 2     | CoV 18357           | 124.42         | 123.78        | 120.45        | 126.27          | 93.40        | <b>117.66</b> |
| 3     | CoOr 18346          | 76.85          | 128.63        | 127.66        | 130.69          | 93.17        | <b>111.40</b> |
|       | <b>Standards</b>    |                |               |               |                 |              |               |
| 1     | CoA 11321           | 123.38         | 115.4         | 114.99        | 142.25          | 78.59        | <b>114.92</b> |
| 2     | CoC 01061           | 153.47         | 124.35        | 114.15        | 132.20          | 109.72       | <b>126.78</b> |
| 3     | CoOr 03151          | 118.17         | 113.2         | 120.45        | 150.73          | 84.61        | <b>117.43</b> |
|       | <b>General mean</b> | <b>117.79</b>  | <b>120.47</b> | <b>120.65</b> | <b>141.60</b>   | <b>90.93</b> | <b>118.29</b> |
|       | SE                  | 7.41           | 3.42          | 2.56          | 5.96            | 5.34         |               |
|       | CD (0.05)           | 22.32          | 7.29          | 7.70          | 17.97           | 15.62        |               |
|       | CV                  | 12.58          | 4.01          | 4.23          | 8.42            | 11.70        |               |

**Table 3.5.19 Number of tillers ('000/ha) at 120 days**

| S. No | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru   | Mean          |
|-------|---------------------|----------------|---------------|---------------|-----------------|---------------|---------------|
| 1     | CoV 18356           | 127.92         | 130.05        | 129.79        | 208.49          | 117.48        | <b>142.75</b> |
| 2     | CoV 18357           | 149.17         | 133.38        | 125.62        | 158.70          | 130.79        | <b>139.53</b> |
| 3     | CoOr 18346          | 105.10         | 137.63        | 134.08        | 167.47          | 119.44        | <b>132.74</b> |
|       | <b>Standards</b>    |                |               |               |                 |               |               |
| 1     | CoA 11321           | 140.88         | 124.98        | 120.61        | 164.50          | 117.82        | <b>133.76</b> |
| 2     | CoC 01061           | 198.22         | 132.40        | 116.69        | 158.17          | 142.94        | <b>149.68</b> |
| 3     | CoOr 03151          | 146.42         | 126.98        | 128.43        | 174.61          | 136.00        | <b>142.49</b> |
|       | <b>General mean</b> | <b>144.62</b>  | <b>130.90</b> | <b>126.20</b> | <b>171.98</b>   | <b>127.41</b> | <b>140.22</b> |
|       | SE                  | 8.53           | 2.15          | 2.16          | 7.11            | 4.88          |               |
|       | CD (0.05)           | 25.71          | 6.49          | 6.52          | 21.43           | 14.28         |               |
|       | CV                  | 11.80          | 3.29          | 3.43          | 8.27            | 7.70          |               |

**Table 3.5.20 Germination % at 30 days**

| S. No | Entry               | Anakapalle   | Cuddalore    | Nayagarh     | Nellikuppam  | Vuyyuru      | Mean         |
|-------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1     | CoV 18356           | 77.50        | 59.13        | 52.44        | 75.75        | 60.50        | <b>65.06</b> |
| 2     | CoV 18357           | 79.39        | 72.23        | 51.54        | 72.50        | 61.11        | <b>67.35</b> |
| 3     | CoOr 18346          | 63.96        | 75.83        | 67.69        | 80.00        | 57.64        | <b>69.02</b> |
|       | <b>Standards</b>    |              |              |              |              |              |              |
| 1     | CoA 11321           | 76.47        | 69.93        | 56.53        | 74.25        | 52.08        | <b>65.85</b> |
| 2     | CoC 01061           | 81.28        | 74.88        | 52.57        | 75.50        | 55.99        | <b>68.04</b> |
| 3     | CoOr 03151          | 86.85        | 66.60        | 57.32        | 74.75        | 56.60        | <b>68.42</b> |
|       | <b>General mean</b> | <b>77.58</b> | <b>69.76</b> | <b>56.35</b> | <b>75.46</b> | <b>57.32</b> | <b>67.29</b> |
|       | SE                  | 8.58         | 2.64         | 2.88         | 3.09         | 2.44         |              |
|       | CD (0.05)           | 25.84        | 5.64         | 8.69         | 9.31         | 7.14         |              |
|       | CV                  | 22.11        | 5.36         | 10.24        | 8.19         | 8.50         |              |

**Table 3.5.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| Entries          | Nellikuppam | Cuddalore | Vuyyuru | Anakapalle | Nayagarh |
|------------------|-------------|-----------|---------|------------|----------|
| CoV 18356        | On par      | Better    | Better  | Better     | Better   |
| CoV 18357        | Better      | Better    | Better  | On par     | Poor     |
| CoOr 18346       | On par      | On par    | On par  | On par     | On par   |
| <b>Standards</b> |             |           |         |            |          |
| CoA 92081        | On par      | Better    | On par  | On par     | On par   |
| CoC 01061        | On par      | Best      | On par  | Best       | Poor     |
| CoA 11321        | Best        | On par    | Best    | Better     | Best     |



### 3.6 ADVANCED VARIETAL TRIAL (MIDLATE) – II PLANT

|               |  |
|---------------|--|
| Centres (5)   | Anakapalle, Cuddalore, Nayagarh, Nellikuppam and Vuyyuru   |
| Entries (5)   | CoC 15339, CoOr 15346, CoC 16338, CoC 16339 and CoV 16357  |
| Standards (3) | CoV 92102, Co 86249, Co 06030                              |
| Design        | Randomized Block Design                                    |
| Replications  | Three  |
| Plot size     | Gross : 6.0 m x 8 R x 0.90 m<br>Net : 5.0 m x 6 R x 0.90 m |
| Bud rate      | 12 buds/ metre   |
| Planting time | 2 <sup>nd</sup> fortnight of November to end of December   |
| Crop duration | 12 months  |

#### Results of the previous year

AVT I Plant (Midlate) trial was conducted with five test entries and three standards in all five centres of the zone. CoC 16339 (14.13 t/ha) was the best entry for sugar yield and recorded 5.09 % improvement over the best standard CoV 92102 (13.45 t/ha) across the locations. CoV 16357 (116.42 t/ha) was the best entry in the trial that recorded 4.10 % improvement for cane yield over the best standard CoV 92102 (111.83 t/ha) across locations. For juice quality traits the standard CoV 92102 recorded the highest mean CCS % and juice sucrose of 12.28 and 17.72 % respectively across locations. No qualifying entry was identified for cane yield or juice quality from this trial.

#### Results of the current year

AVT Midlate II plant crop was conducted with five test entries and three standards in all five centres. Among the test entries, CoC 16338 (14.56 t/ha) was the best entry for CCS yield while the best standard CoV 92102 recorded 15.32 t/ha across the zone. Among the five entries, CoC 16338 (120.20 t/ha) was the best entry in the trial that recorded 0.04 % improvement for cane yield over the best standard CoV 92102 (120.14 t/ha) across locations. For juice quality, the standard Co 06030 recorded the highest mean CCS % and juice sucrose of 12.75 and 18.30 % respectively followed by CoV 92102 with 12.51 % CCS and 17.58 % sucrose across locations and none of the entries was numerically superior. No qualifying entry has been identified for cane yield or juice quality from this trial in comparison to the standard CoV 92102. Further details are presented in tables 3.6.1 to 3.6.20.

**Table 3.6.1 CCS (t/ha) at harvest**

| S. No. | Entry                                      | Anakapalle   | Cuddalore    | Naya garh    | Nellikuppam  | Vuyyuru      | Mean         | Rank     |
|--------|--|--------------|--------------|--------------|--------------|--------------|--------------|----------|
| 1      | CoC 15339                                  | 13.66        | 16.69*       | 11.92        | 12.37        | 14.56        | <b>13.84</b> |          |
| 2      | CoOr 15346                                 | 12.67        | 16.87*       | 14.10*       | 11.61        | 14.79        | <b>14.01</b> | <b>4</b> |
| 3      | CoC 16338                                  | 13.51        | 17.42*       | 12.01        | 14.11        | 15.76        | <b>14.56</b> | <b>3</b> |
| 4      | CoC 16339                                  | 14.64        | 17.13*       | 11.53        | 11.21        | 15.01        | <b>13.90</b> |          |
| 5      | CoV 16357                                  | 14.10        | 16.04        | 9.97         | 10.85        | 18.71        | <b>13.93</b> |          |
|        | <b>Standards</b>                           |              |              |              |              |              |              |          |
| 1      | CoV 92102                                  | 16.26        | 14.72        | 11.19        | 16.45        | 17.96        | <b>15.32</b> | <b>1</b> |
| 2      | Co 86249                                   | 14.03        | 14.37        | 11.38        | 11.66        | 13.62        | <b>13.01</b> |          |
| 3      | Co 06030                                   | 14.17        | 15.56        | 9.57         | 16.52        | 17.92        | <b>14.75</b> | <b>2</b> |
|        | <b>General Mean</b>                        | <b>14.13</b> | <b>16.10</b> | <b>11.46</b> | <b>13.10</b> | <b>16.04</b> | <b>14.17</b> |          |
|        | SE   | 0.86         | 0.49         | 0.35         | 0.92         | 0.84         |              |          |
|        | CD (0.05)                                  | NS           | 1.05         | 1.06         | 2.80         | 2.47         |              |          |
|        | CV   | 10.54        | 3.72         | 5.28         | 12.19        | 9.10         |              |          |
|        | <b>Qualifying entries at each location</b> |              |              |              |              |              |              |          |
|        | 1  | -            | CoOr 15346   | -            | -            | -            | -            |          |
|        | 2  | -            | CoC 16338    | CoOr 15346   | -            | -            | -            |          |
|        | 3  | -            | CoC 16339    | -            | -            | -            | -            |          |

\* Significant over the best standard

**No. of locations where an entry recorded >10 % improvement over the best standard:**  
CoC 16338 (1), CoC 16339 (1), CoOr 15346 (2)

**Performance of the entries across locations:** CoC 16338 (14.56 t/ha) was the best entry for CCS yield while the best standard CoV 92102 recorded 15.32 t/ha across the locations. None of the entries recorded more than 10 % improvement for CCS yield over the best standard CoV 92102 across the zone.

**Table 3.6.2 Cane yield (t/ha) at harvest**

| S. No. | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru   | Mean          | Rank     |
|--------|--|----------------|---------------|--------------|-----------------|---------------|---------------|----------|
| 1      | CoC 15339                                  | 113.60         | 129.80        | 100.54       | 107.97          | 121.50        | <b>114.68</b> | <b>4</b> |
| 2      | CoOr 15346                                 | 111.08         | 131.28        | 114.01*      | 94.69           | 112.55        | <b>112.40</b> |          |
| 3      | CoC 16338                                  | 120.58         | 134.39*       | 101.79       | 125.08          | 119.14        | <b>120.20</b> | <b>1</b> |
| 4      | CoC 16339                                  | 125.96         | 133.46*       | 98.70        | 117.45          | 120.78        | <b>119.27</b> | <b>3</b> |
| 5      | CoV 16357                                  | 124.89         | 125.49        | 85.00        | 101.08          | 135.19        | <b>114.33</b> |          |
|        | <b>Standards</b>                           |                |               |              |                 |               |               |          |
| 1      | CoV 92102                                  | 126.16         | 119.50        | 86.20        | 140.77          | 128.09        | <b>120.14</b> | <b>2</b> |
| 2      | Co 86249                                   | 121.98         | 116.60        | 95.42        | 116.96          | 113.89        | <b>112.97</b> |          |
| 3      | Co 06030                                   | 120.09         | 123.08        | 82.03        | 130.51          | 119.55        | <b>115.05</b> |          |
|        | <b>General mean</b>                        | <b>120.54</b>  | <b>126.70</b> | <b>96.71</b> | <b>116.81</b>   | <b>121.33</b> | <b>116.42</b> |          |
|        | SE   | 6.73           | 4.29          | 2.88         | 8.59            | 6.98          |               |          |
|        | CD (0.05)                                  | NS             | 9.20          | 8.73         | 26.07           | 20.43         |               |          |
|        | CV   | 9.67           | 4.15          | 5.15         | 12.74           | 10.00         |               |          |
|        | <b>Qualifying entries at each location</b> |                |               |              |                 |               |               |          |
|        | 1  | -              | -             | CoOr 15346   | -               | -             | -             |          |
|        | 2  | -              | -             | -            | -               | -             | -             |          |
|        | 3  | -              | -             | -            | -               | -             | -             |          |

\* Significant over the best standard

**No. of locations where an entry recorded >10 % improvement over the best standard:**

CoOr 15346 (1)

**Performance of the entries across locations:** CoC 16338 (120.20 t/ha) was the best entry in the trial that recorded a marginal improvement of 0.04 % for cane yield over the best standard CoV 92102 (120.14 t/ha) across locations.

**Table 3.6.3 CCS % at 12<sup>th</sup> month**

| S. No. | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru  | Mean         | Rank     |
|--------|--|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1      | CoC 15339                                  | 12.04          | 12.86         | 11.85        | 11.44           | 11.98        | <b>12.03</b> |          |
| 2      | CoOr 15346                                 | 11.41          | 12.86         | 12.37        | 12.32           | 13.14        | <b>12.42</b> | <b>3</b> |
| 3      | CoC 16338                                  | 11.21          | 12.96         | 11.80        | 11.28           | 13.23        | <b>12.10</b> |          |
| 4      | CoC 16339                                  | 11.62          | 12.84         | 11.63        | 9.56            | 12.43        | <b>11.62</b> |          |
| 5      | CoV 16357                                  | 11.26          | 12.78         | 11.73        | 10.74           | 13.84        | <b>12.07</b> | <b>4</b> |
|        | <b>Standards</b>                           |                |               |              |                 |              |              |          |
| 1      | CoV 92102                                  | 12.88          | 12.32         | 11.63        | 11.70           | 14.02        | <b>12.51</b> | <b>2</b> |
| 2      | Co 86249                                   | 11.50          | 12.32         | 11.93        | 9.99            | 11.96        | <b>11.54</b> |          |
| 3      | Co 06030                                   | 11.78          | 12.65         | 11.69        | 12.65           | 14.99        | <b>12.75</b> | <b>1</b> |
|        | <b>General mean</b>                        | <b>11.71</b>   | <b>12.70</b>  | <b>11.83</b> | <b>11.21</b>    | <b>13.20</b> | <b>12.13</b> |          |
|        | SE   | 0.12           | 0.14          | 0.10         | 0.17            | 0.16         |              |          |
|        | CD (0.05)                                  | 0.36           | 0.31          | NS           | 0.52            | 0.46         |              |          |
|        | CV   | 1.73           | 1.39          | 1.42         | 2.64            | 2.10         |              |          |
|        | <b>Qualifying entries at each location</b> |                |               |              |                 |              |              |          |
|        | 1  | -              | -             | -            | -               | -            |              |          |
|        | 2  | -              | -             | -            | -               | -            |              |          |
|        | 3  | -              | -             | -            | -               | -            |              |          |

**No. of locations where an entry recorded >5 % improvement over the best standard: Nil**

**Performance of the entries across locations:** The standard Co 06030 recorded the highest mean CCS % of 12.75 followed by CoV 92102 (12.51 %) across locations. Of the test entries CoOr 15346 recorded 12.42 % CCS. None of the entries recorded more than 5 % improvement for CCS % over the best standard Co 06030 and CoV 92102 across locations.

**Table 3.6.4 Sucrose % at 12<sup>th</sup> month**

| S. No. | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru  | Mean         | Rank     |
|--------|--|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1      | CoC 15339                                  | 17.37          | 18.44*        | 17.26        | 16.35           | 17.29        | <b>17.34</b> | <b>4</b> |
| 2      | CoOr 15346                                 | 16.60          | 18.49*        | 17.82*       | 17.63           | 18.41        | <b>17.79</b> | <b>2</b> |
| 3      | CoC 16338                                  | 16.23          | 18.44*        | 17.20        | 16.06           | 18.61        | <b>17.31</b> |          |
| 4      | CoC 16339                                  | 16.80          | 18.20         | 17.14        | 13.92           | 17.80        | <b>16.77</b> |          |
| 5      | CoV 16357                                  | 18.03*         | 18.18         | 17.01        | 15.56           | 19.78        | <b>17.71</b> | <b>3</b> |
|        | <b>Standards</b>                           |                |               |              |                 |              |              |          |
| 1      | CoV 92102                                  | 16.80          | 17.59         | 17.06        | 16.73           | 19.70        | <b>17.58</b> |          |
| 2      | Co 86249                                   | 17.10          | 17.54         | 17.36        | 14.43           | 17.02        | <b>16.69</b> |          |
| 3      | Co 06030                                   | 17.30          | 18.00         | 17.10        | 18.06           | 21.04        | <b>18.30</b> | <b>1</b> |
|        | <b>General mean</b>                        | <b>17.03</b>   | <b>18.11</b>  | <b>17.24</b> | <b>16.09</b>    | <b>18.71</b> | <b>17.44</b> |          |
|        | SE   | 0.11           | 0.20          | 0.10         | 0.24            | 0.22         |              |          |
|        | CD (0.05)                                  | 0.33           | 0.43          | 0.43         | 0.72            | 0.65         |              |          |
|        | CV   | 1.11           | 1.35          | 1.03         | 2.54            | 2.10         |              |          |
|        | <b>Qualifying entries at each location</b> |                |               |              |                 |              |              |          |
|        | 1  | -              | -             | -            | -               | -            |              |          |
|        | 2  | -              | -             | -            | -               | -            |              |          |
|        | 3  | -              | -             | -            | -               | -            |              |          |

**No. of locations where an entry recorded >5 % improvement over the best standard:** None

**Performance of the entries across locations:** The standard Co 06030 recorded the highest mean sucrose % of 18.30 followed by CoV 92102 (17.58 %) across locations. Among the test entries CoOr 15346 and CoV 16357 recorded 17.79 % and 17.71 % sucrose respectively. None of the entries recorded more than 5 % improvement for juice sucrose % over the best standard Co 06030 and CoV 92102 across the zone.

**Table 3.6.5 Brix % at 12<sup>th</sup> month**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1      | CoC 15339           | 19.57        | 20.50        | 19.82        | 18.04        | 19.50        | <b>19.49</b> |
| 2      | CoOr 15346          | 18.80        | 20.68        | 20.21        | 19.53        | 19.43        | <b>19.73</b> |
| 3      | CoC 16338           | 18.43        | 20.14        | 19.78        | 17.59        | 19.83        | <b>19.15</b> |
| 4      | CoC 16339           | 19.00        | 19.75        | 19.95        | 15.95        | 19.73        | <b>18.88</b> |
| 5      | CoV 16357           | 20.23        | 19.86        | 19.40        | 17.65        | 21.83        | <b>19.79</b> |
|        | <b>Standards</b>    |              |              |              |              |              |              |
| 1      | CoV 92102           | 19.00        | 19.39        | 19.88        | 18.51        | 20.93        | <b>19.54</b> |
| 2      | Co 86249            | 19.40        | 19.23        | 19.90        | 16.28        | 18.63        | <b>18.69</b> |
| 3      | Co 06030            | 19.50        | 19.68        | 19.84        | 19.88        | 22.30        | <b>20.24</b> |
|        | <b>General mean</b> | <b>19.24</b> | <b>19.90</b> | <b>19.85</b> | <b>17.92</b> | <b>20.28</b> | <b>19.44</b> |
|        | SE                  | 0.11         | 0.31         | 0.21         | 0.26         | 0.27         |              |
|        | CD (0.05)           | 0.34         | 0.67         | NS           | 0.80         | 0.78         |              |
|        | CV                  | 0.99         | 1.92         | 1.82         | 2.55         | 2.30         |              |

**Table 3.6.6 Purity % at 12<sup>th</sup> month**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1      | CoC 15339           | 88.76        | 89.97        | 87.08        | 90.66        | 88.68        | <b>89.03</b> |
| 2      | CoOr 15346          | 87.95        | 89.39        | 88.50        | 90.30        | 94.72        | <b>90.17</b> |
| 3      | CoC 16338           | 88.06        | 91.56        | 86.99        | 91.29        | 93.83        | <b>90.35</b> |
| 4      | CoC 16339           | 88.42        | 92.20        | 85.89        | 87.22        | 90.20        | <b>88.79</b> |
| 5      | CoV 16357           | 83.04        | 91.54        | 87.70        | 88.12        | 90.61        | <b>88.20</b> |
|        | <b>Standards</b>    |              |              |              |              |              |              |
| 1      | CoV 92102           | 94.92        | 90.73        | 85.83        | 90.39        | 94.11        | <b>91.20</b> |
| 2      | Co 86249            | 86.60        | 91.25        | 87.23        | 88.64        | 91.36        | <b>89.02</b> |
| 3      | Co 06030            | 87.69        | 91.45        | 86.23        | 90.87        | 94.33        | <b>90.11</b> |
|        | <b>General mean</b> | <b>88.18</b> | <b>91.01</b> | <b>86.93</b> | <b>89.68</b> | <b>92.26</b> | <b>89.61</b> |
|        | SE                  | 0.68         | 0.88         | 0.83         | 0.46         | 0.45         |              |
|        | CD (0.05)           | 2.09         | 1.88         | NS           | 1.40         | 1.31         |              |
|        | CV                  | 1.34         | 1.18         | 1.65         | 0.90         | 0.80         |              |

**Table 3.6.7 Pol % cane at harvest**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1      | CoC 15339           | 13.49        | 14.17        | 13.29        | 12.84        | -       | <b>13.45</b> |
| 2      | CoOr 15346          | 12.76        | 14.24        | 13.83        | 13.70        | -       | <b>13.63</b> |
| 3      | CoC 16338           | 12.47        | 14.21        | 13.26        | 12.64        | -       | <b>13.15</b> |
| 4      | CoC 16339           | 12.80        | 13.98        | 13.03        | 11.19        | -       | <b>12.75</b> |
| 5      | CoV 16357           | 13.07        | 13.96        | 12.97        | 12.33        | -       | <b>13.08</b> |
|        | <b>Standards</b>    |              |              |              |              |         |              |
| 1      | CoV 92102           | 12.86        | 13.48        | 13.18        | 13.10        | -       | <b>13.16</b> |
| 2      | Co 86249            | 12.98        | 13.52        | 13.35        | 11.54        | -       | <b>12.85</b> |
| 3      | Co 06030            | 13.45        | 13.84        | 13.12        | 13.97        | -       | <b>13.60</b> |
|        | <b>General mean</b> | <b>12.99</b> | <b>13.92</b> | <b>13.25</b> | <b>12.66</b> | -       | <b>13.21</b> |
|        | SE                  | 0.10         | 0.15         | 0.08         | 0.16         | -       |              |
|        | CD (0.05)           | 0.29         | 0.32         | 0.26         | 0.49         | -       |              |
|        | CV                  | 1.27         | 1.30         | 1.10         | 2.22         | -       |              |

**Table 3.6 .8 Extraction % at harvest**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1      | CoC 15339           | 63.55        | 61.61        | 53.09        | 52.33        | -       | <b>57.65</b> |
| 2      | CoOr 15346          | 52.84        | 62.44        | 53.76        | 51.33        | -       | <b>55.09</b> |
| 3      | CoC 16338           | 60.89        | 65.12        | 51.13        | 50.33        | -       | <b>56.87</b> |
| 4      | CoC 16339           | 56.03        | 62.44        | 51.19        | 52.67        | -       | <b>55.58</b> |
| 5      | CoV 16357           | 59.74        | 62.66        | 52.80        | 50.00        | -       | <b>56.30</b> |
|        | <b>Standards</b>    |              |              |              |              |         |              |
| 1      | CoV 92102           | 48.84        | 59.73        | 52.67        | 49.33        | -       | <b>52.64</b> |
| 2      | Co 86249            | 62.60        | 63.67        | 51.37        | 49.33        | -       | <b>56.74</b> |
| 3      | Co 06030            | 56.82        | 60.87        | 52.78        | 50.67        | -       | <b>55.29</b> |
|        | <b>General mean</b> | <b>57.66</b> | <b>62.32</b> | <b>52.35</b> | <b>50.75</b> | -       | <b>55.77</b> |
|        | SE                  | 3.02         | 3.71         | 0.14         | 1.29         | -       |              |
|        | CD (0.05)           | 9.26         | 7.97         | 0.53         | 3.91         | -       |              |
|        | CV                  | 9.08         | 7.30         | 0.47         | 4.40         | -       |              |

**Table 3.6.9 Fibre % at harvest**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1      | CoC 15339           | 12.31        | 13.14        | 12.97        | 13.30        | -       | <b>12.93</b> |
| 2      | CoOr 15346          | 13.11        | 12.97        | 12.36        | 13.30        | -       | <b>12.94</b> |
| 3      | CoC 16338           | 13.16        | 12.96        | 12.88        | 13.30        | -       | <b>13.08</b> |
| 4      | CoC 16339           | 13.81        | 13.19        | 13.95        | 13.06        | -       | <b>13.50</b> |
| 5      | CoV 16357           | 17.53        | 13.24        | 13.75        | 13.33        | -       | <b>14.46</b> |
|        | <b>Standards</b>    |              |              |              |              |         |              |
| 1      | CoV 92102           | 13.43        | 13.38        | 12.75        | 13.44        | -       | <b>13.25</b> |
| 2      | Co 86249            | 14.11        | 12.94        | 13.08        | 13.44        | -       | <b>13.39</b> |
| 3      | Co 06030            | 12.25        | 13.12        | 13.31        | 12.84        | -       | <b>12.88</b> |
|        | <b>General mean</b> | <b>13.71</b> | <b>13.12</b> | <b>13.13</b> | <b>13.25</b> | -       | <b>13.30</b> |
|        | SE                  | 0.39         | 0.15         | 0.07         | 0.13         | -       |              |
|        | CD (0.05)           | 1.19         | 0.33         | 0.21         | 0.38         | -       |              |
|        | CV                  | 4.94         | 1.42         | 0.93         | 1.66         | -       |              |

**Table 3.6.10 NMC ('000/ha) at harvest**

| S. No. | Entry               | Anaka palle   | Cuddalore     | Naya garh     | Nelli kuppam  | Vuyyuru      | Mean          |
|--------|---------------------|---------------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoC 15339           | 101.23        | 122.04        | 109.47        | 113.00        | 78.40        | <b>104.83</b> |
| 2      | CoOr 15346          | 92.10         | 120.87        | 114.48        | 107.19        | 73.87        | <b>101.70</b> |
| 3      | CoC 16338           | 107.90        | 124.07        | 108.93        | 116.76        | 78.29        | <b>107.19</b> |
| 4      | CoC 16339           | 113.83        | 129.37        | 99.80         | 126.26        | 73.66        | <b>108.58</b> |
| 5      | CoV 16357           | 110.74        | 117.57        | 93.96         | 99.55         | 83.75        | <b>101.11</b> |
|        | <b>Standards</b>    |               |               |               |               |              |               |
| 1      | CoV 92102           | 112.35        | 117.87        | 102.70        | 132.99        | 80.35        | <b>109.25</b> |
| 2      | Co 86249            | 104.69        | 116.20        | 102.98        | 139.21        | 82.31        | <b>109.08</b> |
| 3      | Co 06030            | 105.31        | 117.10        | 95.26         | 136.48        | 76.65        | <b>106.16</b> |
|        | <b>General mean</b> | <b>106.02</b> | <b>120.64</b> | <b>103.20</b> | <b>121.42</b> | <b>78.41</b> | <b>105.94</b> |
|        | SE                  | 6.21          | 3.74          | 3.60          | 8.43          | 4.20         |               |
|        | CD (0.05)           | NS            | 8.02          | 10.93         | 25.57         | 5.93         |               |
|        | CV                  | 10.14         | 3.79          | 6.05          | 12.03         | 9.30         |               |



**Table 3.6.11 Stalk length (cm) at harvest**

| S. No. | Entry               | Anaka palle   | Cuddalore     | Naya garh     | Nelli kuppam  | Vuyyuru       | Mean          |
|--------|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1      | CoC 15339           | 260.00        | 253.00        | 312.00        | 230.33        | 313.50        | <b>273.77</b> |
| 2      | CoOr 15346          | 235.67        | 241.00        | 404.00        | 251.33        | 328.30        | <b>292.06</b> |
| 3      | CoC 16338           | 240.00        | 246.00        | 343.30        | 317.33        | 301.90        | <b>289.71</b> |
| 4      | CoC 16339           | 278.33        | 256.00        | 320.30        | 286.67        | 325.60        | <b>293.38</b> |
| 5      | CoV 16357           | 268.33        | 231.00        | 304.00        | 284.33        | 281.00        | <b>273.73</b> |
|        | <b>Standards</b>    |               |               |               |               |               |               |
| 1      | CoV 92102           | 261.67        | 226.00        | 358.70        | 323.33        | 332.10        | <b>300.36</b> |
| 2      | Co 86249            | 283.33        | 222.00        | 393.30        | 242.67        | 297.50        | <b>287.76</b> |
| 3      | Co 06030            | 236.67        | 229.00        | 296.00        | 280.33        | 306.70        | <b>269.74</b> |
|        | <b>General mean</b> | <b>258.00</b> | <b>238.00</b> | <b>341.50</b> | <b>277.04</b> | <b>310.80</b> | <b>285.07</b> |
|        | SE                  | 13.93         | 6.35          | 6.86          | 22.07         | 13.60         |               |
|        | CD (0.05)           | NS            | 13.62         | 20.80         | 66.93         | 39.78         |               |
|        | CV                  | 9.35          | 3.27          | 3.48          | 13.80         | 7.60          |               |

**Table 3.6.12 Stalk diameter (cm) at harvest**

| S. No. | Entry               | Anaka palle | Cuddalore   | Naya garh   | Nelli kuppam | Vuyyuru     | Mean        |
|--------|---------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| 1      | CoC 15339           | 2.36        | 3.23        | 2.41        | 2.87         | 2.90        | <b>2.75</b> |
| 2      | CoOr 15346          | 2.40        | 3.21        | 2.57        | 2.73         | 2.79        | <b>2.74</b> |
| 3      | CoC 16338           | 2.17        | 3.25        | 2.75        | 2.97         | 2.84        | <b>2.80</b> |
| 4      | CoC 16339           | 2.30        | 3.21        | 2.20        | 2.97         | 2.98        | <b>2.73</b> |
| 5      | CoV 16357           | 2.33        | 2.98        | 2.43        | 3.20         | 2.72        | <b>2.73</b> |
|        | <b>Standards</b>    |             |             |             |              |             |             |
| 1      | CoV 92102           | 2.27        | 3.05        | 2.71        | 2.57         | 2.77        | <b>2.67</b> |
| 2      | Co 86249            | 2.37        | 2.89        | 2.64        | 2.27         | 2.69        | <b>2.57</b> |
| 3      | Co 06030            | 2.50        | 3.09        | 2.83        | 3.23         | 3.13        | <b>2.96</b> |
|        | <b>General mean</b> | <b>2.34</b> | <b>3.11</b> | <b>2.57</b> | <b>2.85</b>  | <b>2.85</b> | <b>2.74</b> |
|        | SE                  | 0.05        | 0.08        | 0.06        | 0.19         | 0.09        |             |
|        | CD (0.05)           | 0.16        | 0.16        | 0.18        | 0.57         | 0.26        |             |
|        | CV                  | 3.83        | 2.99        | 3.90        | 11.33        | 2.50        |             |

**Table 3.6.13 Single cane weight (kg) at harvest**

| S. No. | Entry               | Anaka palle | Cuddalore   | Naya garh   | Nelli kuppam | Vuyyuru     | Mean        |
|--------|---------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| 1      | CoC 15339           | 1.12        | 1.42        | 1.43        | 1.18         | 1.84        | <b>1.40</b> |
| 2      | CoOr 15346          | 1.21        | 1.30        | 1.61        | 1.25         | 1.65        | <b>1.40</b> |
| 3      | CoC 16338           | 1.12        | 1.35        | 1.29        | 1.38         | 1.66        | <b>1.36</b> |
| 4      | CoC 16339           | 1.11        | 1.45        | 1.42        | 1.46         | 2.19        | <b>1.53</b> |
| 5      | CoV 16357           | 1.13        | 1.27        | 1.32        | 1.62         | 1.93        | <b>1.45</b> |
|        | <b>Standards</b>    |             |             |             |              |             |             |
| 1      | CoV 92102           | 1.12        | 1.23        | 1.49        | 1.36         | 1.91        | <b>1.42</b> |
| 2      | Co 86249            | 1.17        | 1.10        | 1.44        | 1.02         | 1.46        | <b>1.24</b> |
| 3      | Co 06030            | 1.14        | 1.24        | 1.48        | 1.53         | 2.12        | <b>1.50</b> |
|        | <b>General mean</b> | <b>1.14</b> | <b>1.29</b> | <b>1.43</b> | <b>1.35</b>  | <b>1.85</b> | <b>1.41</b> |
|        | SE                  | 0.02        | 0.09        | 0.05        | 0.81         | 0.04        |             |
|        | CD (0.05)           | 0.06        | 0.18        | 0.15        | 0.24         | 0.12        |             |
|        | CV                  | 3.05        | 8.09        | 6.00        | 10.33        | 4.00        |             |

**Table 3.6.14 CCS % at 10 months**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1      | CoC 15339           | 11.13        | 11.82        | 11.70        | 10.83        | 11.77        | <b>11.45</b> |
| 2      | CoOr 15346          | 10.78        | 11.45        | 12.13        | 10.87        | 8.97         | <b>10.84</b> |
| 3      | CoC 16338           | 11.09        | 11.61        | 11.72        | 10.04        | 11.31        | <b>11.15</b> |
| 4      | CoC 16339           | 11.33        | 11.52        | 11.56        | 9.62         | 11.86        | <b>11.18</b> |
| 5      | CoV 16357           | 11.02        | 11.39        | 11.60        | 11.21        | 11.44        | <b>11.33</b> |
|        | <b>Standards</b>    |              |              |              |              |              |              |
| 1      | CoV 92102           | 12.43        | 10.93        | 11.53        | 11.51        | 10.34        | <b>11.35</b> |
| 2      | Co 86249            | 10.96        | 10.88        | 11.80        | 8.97         | 11.53        | <b>10.83</b> |
| 3      | Co 06030            | 12.05        | 11.24        | 11.57        | 11.61        | 10.96        | <b>11.49</b> |
|        | <b>General mean</b> | <b>11.35</b> | <b>11.35</b> | <b>11.70</b> | <b>10.58</b> | <b>11.02</b> | <b>11.20</b> |
|        | SE                  | 0.06         | 0.20         | 0.10         | 0.83         | 0.20         |              |
|        | CD (0.05)           | 0.19         | 0.42         | 0.31         | 0.25         | 0.59         |              |
|        | CV                  | 0.94         | 2.10         | 1.52         | 1.35         | 3.20         |              |

**Table 3.6.15 Sucrose % at 10 months**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1      | CoC 15339           | 16.13        | 16.97        | 17.08        | 15.73        | 16.99        | <b>16.58</b> |
| 2      | CoOr 15346          | 15.70        | 16.70        | 17.57        | 15.85        | 13.33        | <b>15.83</b> |
| 3      | CoC 16338           | 16.07        | 16.75        | 17.06        | 14.79        | 16.33        | <b>16.20</b> |
| 4      | CoC 16339           | 16.40        | 16.61        | 16.96        | 14.02        | 17.17        | <b>16.23</b> |
| 5      | CoV 16357           | 17.47        | 16.39        | 16.82        | 16.21        | 16.94        | <b>16.77</b> |
|        | <b>Standards</b>    |              |              |              |              |              |              |
| 1      | CoV 92102           | 16.13        | 15.80        | 16.90        | 16.56        | 15.06        | <b>16.09</b> |
| 2      | Co 86249            | 15.70        | 15.72        | 17.17        | 13.32        | 16.61        | <b>15.70</b> |
| 3      | Co 06030            | 16.07        | 16.21        | 16.93        | 16.70        | 16.04        | <b>16.39</b> |
|        | <b>General mean</b> | <b>16.56</b> | <b>16.39</b> | <b>17.06</b> | <b>15.40</b> | <b>16.06</b> | <b>16.29</b> |
|        | SE                  | 0.06         | 0.23         | 0.12         | 0.12         | 0.24         |              |
|        | CD (0.05)           | 0.19         | 0.50         | 0.35         | 0.37         | 0.71         |              |
|        | CV                  | 0.66         | 1.73         | 1.18         | 1.36         | 2.60         |              |

**Table 3.6.16 Brix % at 10 months**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1      | CoC 15339           | 18.33        | 18.94        | 19.72        | 17.96        | 19.17        | <b>18.82</b> |
| 2      | CoOr 15346          | 17.90        | 19.23        | 19.95        | 18.24        | 15.94        | <b>18.25</b> |
| 3      | CoC 16338           | 18.27        | 18.85        | 19.52        | 17.38        | 18.43        | <b>18.49</b> |
| 4      | CoC 16339           | 18.60        | 18.68        | 19.79        | 16.14        | 19.49        | <b>18.54</b> |
| 5      | CoV 16357           | 19.67        | 18.37        | 17.14        | 18.34        | 20.09        | <b>18.72</b> |
|        | <b>Standards</b>    |              |              |              |              |              |              |
| 1      | CoV 92102           | 18.60        | 17.89        | 19.68        | 18.56        | 17.28        | <b>18.40</b> |
| 2      | Co 86249            | 19.50        | 17.77        | 19.65        | 15.91        | 18.64        | <b>18.29</b> |
| 3      | Co 06030            | 19.30        | 18.22        | 19.64        | 18.66        | 18.60        | <b>18.88</b> |
|        | <b>General mean</b> | <b>18.77</b> | <b>18.49</b> | <b>19.64</b> | <b>17.64</b> | <b>18.46</b> | <b>18.60</b> |
|        | SE                  | 0.06         | 0.34         | 0.17         | 0.15         | 0.22         |              |
|        | CD (0.05)           | 0.19         | 0.73         | NS           | 0.44         | 0.65         |              |
|        | CV                  | 0.59         | 2.25         | 1.53         | 1.43         | 2.10         |              |

**Table 3.6.17 Purity % at 10 months**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1      | CoC 15339           | 88.00        | 89.61        | 86.60        | 87.58        | 88.60        | <b>88.08</b> |
| 2      | CoOr 15346          | 87.53        | 86.86        | 88.05        | 86.88        | 83.66        | <b>86.60</b> |
| 3      | CoC 16338           | 87.96        | 88.88        | 87.18        | 85.06        | 88.59        | <b>87.53</b> |
| 4      | CoC 16339           | 88.17        | 89.03        | 85.72        | 86.87        | 88.11        | <b>87.58</b> |
| 5      | CoV 16357           | 83.36        | 89.24        | 87.89        | 88.37        | 84.29        | <b>86.63</b> |
|        | <b>Standards</b>    |              |              |              |              |              |              |
| 1      | CoV 92102           | 93.95        | 88.36        | 85.89        | 89.24        | 87.14        | <b>88.92</b> |
| 2      | Co 86249            | 83.59        | 88.45        | 87.35        | 83.76        | 89.11        | <b>86.45</b> |
| 3      | Co 06030            | 89.64        | 88.93        | 86.32        | 89.47        | 86.22        | <b>88.12</b> |
|        | <b>General mean</b> | <b>87.77</b> | <b>88.67</b> | <b>86.88</b> | <b>87.15</b> | <b>86.97</b> | <b>87.49</b> |
|        | SE                  | 0.40         | 1.35         | 0.69         | 0.14         | 0.82         |              |
|        | CD (0.05)           | 1.24         | 2.89         | NS           | 0.42         | 2.39         |              |
|        | CV                  | 0.80         | 1.86         | 1.38         | 0.27         | 1.60         |              |

**Table 3.6.18 Number of shoots ('000/ha) at 240 days**

| S. No. | Entry               | Anaka palle   | Cuddalore     | Naya garh     | Nelli kuppam  | Vuyyuru      | Mean          |
|--------|---------------------|---------------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoC 15339           | 115.67        | 127.04        | 113.83        | 129.67        | 83.23        | <b>113.89</b> |
| 2      | CoOr 15346          | 107.33        | 125.21        | 120.47        | 141.52        | 78.09        | <b>114.52</b> |
| 3      | CoC 16338           | 118.67        | 129.07        | 112.89        | 134.29        | 86.21        | <b>116.23</b> |
| 4      | CoC 16339           | 120.33        | 132.04        | 105.64        | 139.67        | 84.98        | <b>116.53</b> |
| 5      | CoV 16357           | 124.33        | 121.91        | 104.61        | 145.09        | 91.56        | <b>117.50</b> |
|        | <b>Standards</b>    |               |               |               |               |              |               |
| 1      | CoV 92102           | 125.67        | 122.21        | 110.41        | 161.34        | 90.64        | <b>122.05</b> |
| 2      | Co 86249            | 115.67        | 120.21        | 109.51        | 153.99        | 84.98        | <b>116.87</b> |
| 3      | Co 06030            | 117.67        | 121.77        | 102.00        | 143.48        | 82.41        | <b>113.47</b> |
|        | <b>General mean</b> | <b>118.17</b> | <b>124.93</b> | <b>109.92</b> | <b>143.63</b> | <b>85.26</b> | <b>116.38</b> |
|        | SE                  | 21.21         | 3.89          | 3.24          | 7.97          | 3.82         |               |
|        | CD (0.05)           | NS            | 8.34          | 9.83          | 21.16         | 11.17        |               |
|        | CV                  | 11.39         | 3.81          | 5.11          | 9.61          | 7.80         |               |

**Table 3.6.19 Number of tillers ('000/ha) at 120 days**

| S. No. | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru   | Mean          |
|--------|---------------------|----------------|---------------|---------------|-----------------|---------------|---------------|
| 1      | CoC 15339           | 123.00         | 135.50        | 128.06        | 168.33          | 125.72        | <b>136.12</b> |
| 2      | CoOr 15346          | 125.67         | 133.00        | 137.30        | 174.08          | 114.51        | <b>136.91</b> |
| 3      | CoC 16338           | 120.33         | 136.87        | 130.76        | 169.00          | 127.68        | <b>136.93</b> |
| 4      | CoC 16339           | 134.33         | 140.50        | 123.17        | 174.00          | 115.74        | <b>137.55</b> |
| 5      | CoV 16357           | 131.67         | 131.03        | 130.26        | 174.55          | 148.87        | <b>143.28</b> |
|        | <b>Standards</b>    |                |               |               |                 |               |               |
| 1      | CoV 92102           | 138.33         | 130.67        | 128.53        | 177.15          | 119.55        | <b>138.85</b> |
| 2      | Co 86249            | 121.00         | 130.33        | 127.91        | 170.00          | 119.24        | <b>133.70</b> |
| 3      | Co 06030            | 125.00         | 131.90        | 130.89        | 168.67          | 122.84        | <b>135.86</b> |
|        | <b>General mean</b> | <b>127.42</b>  | <b>133.73</b> | <b>129.61</b> | <b>171.97</b>   | <b>124.27</b> | <b>137.40</b> |
|        | SE                  | 17.43          | 2.40          | 2.01          | 8.33            | 6.55          |               |
|        | CD (0.05)           | 53.37          | 7.28          | 6.11          | 25.27           | 19.20         |               |
|        | CV                  | 10.17          | 3.11          | 2.69          | 8.39            | 9.20          |               |

**Table 3.6.20 Germination % at 30 days**

| S. No. | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru  | Mean         |
|--------|---------------------|----------------|---------------|--------------|-----------------|--------------|--------------|
| 1      | CoC 15339           | 72.31          | 74.20         | 54.16        | 80.67           | 58.41        | <b>67.95</b> |
| 2      | CoOr 15346          | 58.15          | 70.77         | 68.01        | 73.67           | 54.09        | <b>64.94</b> |
| 3      | CoC 16338           | 80.00          | 77.33         | 53.78        | 79.67           | 60.03        | <b>70.16</b> |
| 4      | CoC 16339           | 78.98          | 74.10         | 63.42        | 79.00           | 56.17        | <b>70.33</b> |
| 5      | CoV 16357           | 93.15          | 68.43         | 50.98        | 80.33           | 78.24        | <b>74.23</b> |
|        | <b>Standards</b>    |                |               |              |                 |              |              |
| 1      | CoV 92102           | 90.65          | 71.43         | 55.63        | 95.39           | 61.27        | <b>74.87</b> |
| 2      | Co 86249            | 69.07          | 65.37         | 67.46        | 78.67           | 53.70        | <b>66.85</b> |
| 3      | Co 06030            | 86.02          | 71.33         | 61.10        | 71.67           | 76.08        | <b>73.24</b> |
|        | <b>General mean</b> | <b>78.54</b>   | <b>71.62</b>  | <b>59.32</b> | <b>79.88</b>    | <b>62.25</b> | <b>70.32</b> |
|        | SE                  |                | 2.21          | 2.38         | 3.96            | 4.29         |              |
|        | CD (0.05)           |                | 4.74          | 7.23         | 12.02           | 12.54        |              |
|        | CV                  |                | 3.78          | 6.96         | 8.60            | 11.90        |              |

**Table 3.6.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| Entries          | Nellikuppam | Cuddalore | Vuyyuru | Anakapalle | Nayagarh |
|------------------|-------------|-----------|---------|------------|----------|
| CoC 15339        | On par      | On par    | Better  | On par     | On par   |
| CoOr 15346       | On par      | On par    | Better  | On par     | On par   |
| CoC 16338        | Better      | Better    | On par  | Better     | Better   |
| CoC 16339        | On par      | On par    | On par  | On parr    | On par   |
| CoV 16357        | Poor        | On par    | On par  | On par     | On par   |
| <b>Standards</b> |             |           |         |            |          |
| CoV 92102        | Best        | Best      | Better  | Better     | Best     |
| Co 86249         | Better      | Better    | Better  | Better     | Better   |
| Co 06030         | On par      | On par    | Best    | Best       | On par   |

### 3.7 ADVANCED VARIETAL TRIAL (MIDLATE) – RATOON

|                |  |
|----------------|--|
| Centres (5)    | Anakapalle, Cuddalore, Nayagarh, Nellikuppam and Vuyyuru   |
| Entries (5)    | CoC 15339, CoOr 15346, CoC 16338, CoC 16339 and CoV 16357  |
| Standards (3)  | CoV 92102, Co 86249, Co 06030                              |
| Design         | Randomized Block Design                                    |
| Replications   | Three  |
| Plot size      | Gross : 6.0 m x 8 R x 0.90 m<br>Net : 5.0 m x 6 R x 0.90 m |
| Ratooning time | Immediately after harvest of First Plant crop              |
| Crop duration  | 11 months  |

#### Results of the previous year

AVT I Plant (Midlate) trial was conducted with five test entries and three standards in all five centres of the zone. CoC 16339 (14.13 t/ha) was the best entry for sugar yield and recorded 5.09 % improvement over the best standard CoV 92102 (13.45 t/ha) across the locations. CoV 16357 (116.42 t/ha) was the best entry in the trial that recorded 4.10 % improvement for cane yield over the best standard CoV 92102 (111.83 t/ha) across locations. For juice quality traits the standard CoV 92102 recorded the highest mean CCS % and juice sucrose of 12.28 and 17.72 % respectively across locations. No qualifying entry was identified for cane yield or juice quality from this trial.

#### Results of the current year

AVT ratoon crop was conducted with five test entries and three standards in all five centres. Among the test entries, CoV 16357 (12.45 t/ha) was the best for CCS yield followed by CoC 16338 (12.36 t/ha) while the best standard CoV 92102 recorded 12.22 t/ha across the zone. Among the five entries, CoC 16338 (102.18 t/ha) was the best entry in the trial that recorded 4.23 % improvement for cane yield over the standard CoV 92102 (98.03 t/ha) across locations. For juice quality, the standard Co 06030 recorded the highest mean CCS % and juice sucrose of 12.58 and 18.00 % respectively followed by CoV 92102 with 12.55 % CCS and 17.79 % sucrose across locations. Among the test entries CoV 16337 ranked first in the zone with 12.61 % CCS and 18.09 % sucrose and numerically superior to the standards Co 06030 and CoV 92102. No qualifying entry has been identified for sugar yield, cane yield or juice quality from this trial. Further details are presented in tables 3.7.1 to 3.7.20.

**Table 3.7.1 CCS (t/ha) at harvest**

| S. No. | Entry                                      | Anakapalle   | Cuddalore    | Naya garh   | Nellikuppam  | Vuyyuru      | Mean         | Rank     |
|--------|--|--------------|--------------|-------------|--------------|--------------|--------------|----------|
| 1      | CoC 15339                                  | 8.05         | 15.82        | 8.48        | 12.66        | 12.52        | <b>11.51</b> |          |
| 2      | CoOr 15346                                 | 11.57        | 15.64        | 9.96*       | 10.28        | 9.17         | <b>11.32</b> |          |
| 3      | CoC 16338                                  | 10.96        | 16.67*       | 8.13        | 13.47        | 12.57        | <b>12.36</b> | <b>2</b> |
| 4      | CoC 16339                                  | 13.12        | 16.15        | 8.13        | 13.03        | 9.74         | <b>12.03</b> |          |
| 5      | CoV 16357                                  | 11.35        | 14.82        | 8.30        | 15.80        | 11.98        | <b>12.45</b> | <b>1</b> |
|        | <b>Standards</b>                           |              |              |             |              |              |              |          |
| 1      | CoV 92102                                  | 14.08        | 13.96        | 7.93        | 13.89        | 11.23        | <b>12.22</b> | <b>3</b> |
| 2      | Co 86249                                   | 12.36        | 13.38        | 8.39        | 11.80        | 12.16        | <b>11.62</b> |          |
| 3      | Co 06030                                   | 8.86         | 14.76        | 7.42        | 13.45        | 8.42         | <b>10.58</b> |          |
|        | <b>General mean</b>                        | <b>11.29</b> | <b>15.15</b> | <b>8.34</b> | <b>13.05</b> | <b>10.97</b> | <b>11.76</b> |          |
|        | SE   | 1.08         | 0.71         | 0.31        | 0.92         | 0.73         |              |          |
|        | CD (0.05)                                  | 3.32         | 1.52         | 0.93        | 2.79         | 2.12         |              |          |
|        | CV   | 16.61        | 5.72         | 6.38        | 12.22        | 11.50        |              |          |
|        | <b>Qualifying entries at each location</b> |              |              |             |              |              |              |          |
|        | 1  | -            | CoC 15339    | CoOr 15346  | CoV 16357    | CoC 15339    |              |          |
|        | 2  | -            | CoC 16339    | -           | -            | -            |              |          |
|        | 3  | -            | CoC 16338    | -           | -            | -            |              |          |

\* Significant over the best standard

**No. of locations where an entry recorded >10 % improvement over the best standard:**

CoC 15339 (2), CoC 16339 (1), CoOr 15346 (1), CoV 16357 (1)

**Performance of the entries across locations:** CoV 16357 (12.45 t/ha) was the best entry for CCS yield while the best standard CoV 92102 recorded 12.22 t/ha across the locations. The best entry CoV 16357 registered 1.89 % improvement over the best standard CoV 92102. None of the entries recorded more than 10 % improvement for CCS yield over the best standard CoV 92102 across locations.



**Table 3.7.2 Cane yield (t/ha) at harvest**

| S. No. | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru  | Mean          | Rank     |
|--------|--|----------------|---------------|--------------|-----------------|--------------|---------------|----------|
| 1      | CoC 15339                                  | 65.45          | 122.56        | 71.29        | 113.18          | 100.72       | <b>94.64</b>  |          |
| 2      | CoOr 15346                                 | 98.07          | 122.95        | 80.96*       | 94.12           | 72.02        | <b>93.62</b>  |          |
| 3      | CoC 16338                                  | 96.48          | 128.49*       | 68.64        | 115.12          | 102.16       | <b>102.18</b> | <b>1</b> |
| 4      | CoC 16339                                  | 112.31         | 125.55        | 68.96        | 124.55          | 78.19        | <b>101.91</b> | <b>2</b> |
| 5      | CoV 16357                                  | 99.28          | 117.58        | 69.90        | 142.22          | 80.56        | <b>101.91</b> | <b>2</b> |
|        | <b>Standards</b>                           |                |               |              |                 |              |               |          |
| 1      | CoV 92102                                  | 110.16         | 112.26        | 68.66        | 122.23          | 76.85        | <b>98.03</b>  |          |
| 2      | Co 86249                                   | 104.98         | 108.36        | 70.65        | 114.83          | 100.31       | <b>99.83</b>  | <b>3</b> |
| 3      | Co 06030                                   | 73.76          | 116.84        | 63.09        | 119.09          | 55.35        | <b>85.63</b>  |          |
|        | <b>General mean</b>                        | <b>95.06</b>   | <b>119.33</b> | <b>70.27</b> | <b>118.17</b>   | <b>83.27</b> | <b>97.22</b>  |          |
|        | SE   | 8.93           | 5.29          | 2.56         | 7.97            | 6.02         |               |          |
|        | CD (0.05)                                  | 27.34          | 11.34         | 7.77         | 24.16           | 17.62        |               |          |
|        | CV   | 16.27          | 5.42          | 6.31         | 11.68           | 12.50        |               |          |
|        | <b>Qualifying entries at each location</b> |                |               |              |                 |              |               |          |
|        | 1  | -              | CoC 16338     | CoOr 15346   | CoV 16357       | -            |               |          |
|        | 2  | -              | -             | -            | -               | -            |               |          |
|        | 3  | -              | -             | -            | -               | -            |               |          |

\* Significant over the best standard

**No. of locations where an entry recorded >10 % improvement over the best standard:**  
CoC 16338 (1), CoOr 15346 (1), CoV 16357 (1)

**Performance of the entries across locations:** CoC 16338 (102.18 t/ha) was the best entry in the trial that recorded 4.23 % improvement for cane yield followed by CoC 16339 (101.91 t/ha) and CoV 16357 (101.91 t/ha) over the better standard CoV 92102 (98.03 t/ha) and Co 86249 the best standard (99.83 t/ha) across locations. None of the entries recorded more than 10 % improvement for cane yield over the standard CoV 92102 across the zone.

**Table 3.7.3 CCS % at 11<sup>th</sup> month**

| S. No. | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyy<br>uru  | Mean         | Rank     |
|--------|--|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1      | CoC 15339                                  | 12.30          | 12.91*        | 11.89        | 11.17           | 12.43        | <b>12.14</b> |          |
| 2      | CoOr 15346                                 | 11.79          | 12.72         | 12.30*       | 10.91           | 12.73        | <b>12.09</b> |          |
| 3      | CoC 16338                                  | 11.37          | 12.98*        | 11.84        | 11.71*          | 12.30        | <b>12.04</b> |          |
| 4      | CoC 16339                                  | 11.69          | 12.86*        | 11.79        | 10.47           | 12.46        | <b>11.85</b> |          |
| 5      | CoV 16357                                  | 12.59          | 12.60         | 11.87        | 11.11           | 14.88        | <b>12.61</b> | <b>1</b> |
|        | <b>Standards</b>                           |                |               |              |                 |              |              |          |
| 1      | CoV 92102                                  | 12.78          | 12.43         | 11.56        | 11.36           | 14.61        | <b>12.55</b> | <b>3</b> |
| 2      | Co 86249                                   | 11.81          | 12.34         | 11.88        | 10.27           | 12.12        | <b>11.68</b> |          |
| 3      | Co 06030                                   | 12.00          | 12.63         | 11.77        | 11.29           | 15.21        | <b>12.58</b> | <b>2</b> |
|        | <b>General mean</b>                        | <b>12.04</b>   | <b>12.69</b>  | <b>11.86</b> | <b>11.04</b>    | <b>13.34</b> | <b>12.19</b> |          |
|        | SE   | 0.12           | 0.09          | 0.09         | 0.83            | 0.22         |              |          |
|        | CD (0.05)                                  | 0.35           | 0.20          | 0.27         | 0.25            | 0.63         |              |          |
|        | CV   | 1.67           | 0.91          | 1.29         | 1.30            | 2.80         |              |          |
|        | <b>Qualifying entries at each location</b> |                |               |              |                 |              |              |          |
|        | 1  | -              | -             | -            | -               | -            |              |          |
|        | 2  | -              | -             | -            | -               | -            |              |          |
|        | 3  | -              | -             | -            | -               | -            |              |          |

**No. of locations where an entry recorded >5 % improvement over the best standard:** None

**Performance of the entries across locations:** The standard Co 06030 recorded the highest mean CCS % of 12.58 followed by CoV 92102 (12.55 %) across locations. Among the test entries CoV 16357 ranked first in the zone and recorded 12.61 % CCS. None of the entries recorded more than 5 % improvement for CCS % over the best standard Co 06030 across locations.

**Table 3.7.4 Sucrose % at 11<sup>th</sup> month**

| S. No. | Entry                                      | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru  | Mean         | Rank     |
|--------|--|----------------|---------------|--------------|-----------------|--------------|--------------|----------|
| 1      | CoC 15339                                  | 17.70*         | 18.44*        | 17.29        | 16.09           | 17.83        | <b>17.47</b> |          |
| 2      | CoOr 15346                                 | 16.98          | 18.15         | 17.81*       | 15.83           | 17.66        | <b>17.29</b> |          |
| 3      | CoC 16338                                  | 16.38          | 18.53*        | 17.22        | 16.73           | 17.26        | <b>17.22</b> |          |
| 4      | CoC 16339                                  | 16.86          | 18.52*        | 17.23        | 15.45           | 17.66        | <b>17.14</b> |          |
| 5      | CoV 16357                                  | 18.02          | 18.00         | 17.28        | 16.13           | 21.04*       | <b>18.09</b> | <b>1</b> |
|        | <b>Standards</b>                           |                |               |              |                 |              |              |          |
| 1      | CoV 92102                                  | 17.09          | 17.85         | 16.99        | 16.55           | 20.48        | <b>17.79</b> | <b>3</b> |
| 2      | Co 86249                                   | 17.27          | 17.84         | 17.31        | 15.04           | 17.10        | <b>16.91</b> |          |
| 3      | Co 06030                                   | 17.14          | 18.07         | 17.16        | 16.28           | 21.33        | <b>18.00</b> | <b>2</b> |
|        | <b>General mean</b>                        | <b>17.18</b>   | <b>18.17</b>  | <b>17.29</b> | <b>16.02</b>    | <b>18.80</b> | <b>17.49</b> |          |
|        | SE   | 0.12           | 0.14          | 0.07         | 0.11            | 0.29         |              |          |
|        | CD (0.05)                                  | 0.38           | 0.3           | 0.21         | 0.34            | 0.84         |              |          |
|        | CV   | 1.26           | 0.96          | 0.68         | 1.21            | 2.70         |              |          |
|        | <b>Qualifying entries at each location</b> |                |               |              |                 |              |              |          |
|        | 1  | -              | -             | -            | -               | -            |              |          |
|        | 2  | -              | -             | -            | -               | -            |              |          |
|        | 3  | -              | -             | -            | -               | -            |              |          |

**No. of locations where an entry recorded >5 % improvement over the best standard:** None

**Performance of the entries across locations:** The standard Co 06030 recorded the highest mean juice sucrose of 18.00 % followed by CoV 92102 (17.79 %) across locations. Among the test entries CoV 16357 recorded 18.09 % juice sucrose and was numerically superior to the standards Co 06030 and CoV 92102. None of the entries recorded more than 5 % improvement for sucrose % over the best standard Co 06030 across locations.

**Table 3.7.5 Brix % at 11<sup>th</sup> month**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1      | CoC 15339           | 19.80        | 20.30        | 19.82        | 18.07        | 19.83        | <b>19.56</b> |
| 2      | CoOr 15346          | 19.01        | 19.96        | 20.21        | 18.04        | 18.23        | <b>19.09</b> |
| 3      | CoC 16338           | 18.41        | 20.41        | 19.72        | 18.46        | 18.30        | <b>19.06</b> |
| 4      | CoC 16339           | 18.97        | 20.75        | 19.90        | 18.20        | 19.17        | <b>19.40</b> |
| 5      | CoV 16357           | 19.95        | 19.83        | 19.83        | 18.42        | 22.70        | <b>20.15</b> |
|        | <b>Standards</b>    |              |              |              |              |              |              |
| 1      | CoV 92102           | 19.28        | 19.90        | 19.89        | 19.01        | 21.67        | <b>19.95</b> |
| 2      | Co 86249            | 19.38        | 20.16        | 19.91        | 17.46        | 18.33        | <b>19.05</b> |
| 3      | Co 06030            | 19.35        | 19.98        | 19.75        | 18.31        | 22.57        | <b>19.99</b> |
|        | <b>General mean</b> | <b>19.27</b> | <b>20.16</b> | <b>19.88</b> | <b>18.26</b> | <b>20.10</b> | <b>19.53</b> |
|        | SE                  | 0.10         | 0.32         | 0.16         | 0.14         | 0.28         |              |
|        | CD (0.05)           | 0.31         | 0.68         | NS           | 0.43         | 0.82         |              |
|        | CV                  | 0.92         | 1.92         | 1.40         | 1.33         | 2.40         |              |

**Table 3.7.6 Purity % at 11<sup>th</sup> month**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru      | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1      | CoC 15339           | 89.36        | 90.83        | 87.30        | 89.04        | 89.88        | <b>89.28</b> |
| 2      | CoOr 15346          | 89.29        | 90.96        | 88.13        | 87.78        | 96.87        | <b>90.61</b> |
| 3      | CoC 16338           | 89.00        | 90.78        | 87.34        | 90.63        | 94.34        | <b>90.42</b> |
| 4      | CoC 16339           | 88.84        | 89.26        | 86.59        | 84.88        | 92.16        | <b>88.35</b> |
| 5      | CoV 16357           | 84.49        | 90.76        | 87.16        | 87.56        | 92.70        | <b>88.53</b> |
|        | <b>Standards</b>    |              |              |              |              |              |              |
| 1      | CoV 92102           | 93.44        | 89.74        | 85.42        | 87.06        | 94.54        | <b>90.04</b> |
| 2      | Co 86249            | 88.17        | 88.46        | 86.96        | 86.15        | 93.25        | <b>88.60</b> |
| 3      | Co 06030            | 89.27        | 90.44        | 86.89        | 88.91        | 94.53        | <b>90.01</b> |
|        | <b>General mean</b> | <b>88.98</b> | <b>90.15</b> | <b>86.97</b> | <b>87.75</b> | <b>93.52</b> | <b>89.47</b> |
|        | SE                  | 0.71         | 0.98         | 0.82         | 0.40         | 0.36         |              |
|        | CD (0.05)           | 2.17         | 2.09         | NS           | 1.22         | 1.05         |              |
|        | CV                  | 1.38         | 1.32         | 1.64         | 0.79         | 0.70         |              |

**Table 3.7.7 Pol % cane at harvest**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1      | CoC 15339           | 13.60        | 14.21        | 13.30        | 12.40        | -       | <b>13.38</b> |
| 2      | CoOr 15346          | 13.23        | 14.00        | 13.83        | 12.17        | -       | <b>13.31</b> |
| 3      | CoC 16338           | 12.67        | 14.27        | 13.27        | 13.00        | -       | <b>13.30</b> |
| 4      | CoC 16339           | 13.08        | 14.25        | 13.19        | 11.88        | -       | <b>13.10</b> |
| 5      | CoV 16357           | 13.32        | 13.87        | 13.07        | 12.43        | -       | <b>13.17</b> |
|        | <b>Standards</b>    |              |              |              |              |         |              |
| 1      | CoV 92102           | 12.78        | 13.74        | 13.02        | 12.83        | -       | <b>13.09</b> |
| 2      | Co 86249            | 13.10        | 13.77        | 13.36        | 11.59        | -       | <b>12.96</b> |
| 3      | Co 06030            | 13.25        | 13.91        | 13.10        | 12.62        | -       | <b>13.22</b> |
|        | <b>General mean</b> | <b>13.12</b> | <b>14.00</b> | <b>13.27</b> | <b>12.36</b> | -       | <b>13.19</b> |
|        | SE                  | 0.13         | 0.11         | 0.05         | 0.82         | -       |              |
|        | CD (0.05)           | 0.39         | 0.24         | 0.16         | 0.25         | -       |              |
|        | CV                  | 1.68         | 0.96         | 0.69         | 1.15         | -       |              |

**Table 3.7.8 Extraction % at harvest**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1      | CoC 15339           | 63.55        | 63.44        | 53.41        | 50.30        | -       | <b>57.68</b> |
| 2      | CoOr 15346          | 52.84        | 64.14        | 54.01        | 49.39        | -       | <b>55.10</b> |
| 3      | CoC 16338           | 60.89        | 65.33        | 52.09        | 53.78        | -       | <b>58.02</b> |
| 4      | CoC 16339           | 56.03        | 64.52        | 51.45        | 57.68        | -       | <b>57.42</b> |
| 5      | CoV 16357           | 59.74        | 60.34        | 52.91        | 52.26        | -       | <b>56.31</b> |
|        | <b>Standards</b>    |              |              |              |              |         |              |
| 1      | CoV 92102           | 48.84        | 61.39        | 53.01        | 46.86        | -       | <b>52.53</b> |
| 2      | Co 86249            | 62.60        | 59.21        | 51.05        | 45.93        | -       | <b>54.70</b> |
| 3      | Co 06030            | 56.82        | 64.25        | 52.90        | 52.55        | -       | <b>56.63</b> |
|        | <b>General mean</b> | <b>57.66</b> | <b>62.83</b> | <b>52.60</b> | <b>51.10</b> | -       | <b>56.05</b> |
|        | SE                  | 3.02         | 2.97         | 0.26         | 2.23         | -       |              |
|        | CD (0.05)           | 9.26         | 6.36         | 0.80         | 6.75         | -       |              |
|        | CV                  | 9.08         | 5.78         | 0.86         | 7.55         | -       |              |

**Table 3.7.9 Fibre % at harvest**

| S. No. | Entry               | Anaka palle  | Cuddalore    | Naya garh    | Nelli kuppam | Vuyyuru | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|---------|--------------|
| 1      | CoC 15339           | 13.19        | 12.90        | 13.07        | 12.97        | -       | <b>13.03</b> |
| 2      | CoOr 15346          | 12.08        | 12.87        | 12.41        | 13.15        | -       | <b>12.63</b> |
| 3      | CoC 16338           | 12.65        | 12.99        | 12.94        | 12.28        | -       | <b>12.72</b> |
| 4      | CoC 16339           | 12.42        | 13.04        | 13.47        | 13.06        | -       | <b>13.00</b> |
| 5      | CoV 16357           | 16.08        | 12.92        | 14.38        | 12.92        | -       | <b>14.08</b> |
|        | <b>Standards</b>    |              |              |              |              |         |              |
| 1      | CoV 92102           | 15.24        | 13.01        | 13.35        | 12.44        | -       | <b>13.51</b> |
| 2      | Co 86249            | 14.15        | 12.80        | 12.78        | 12.93        | -       | <b>13.17</b> |
| 3      | Co 06030            | 12.68        | 13.01        | 13.63        | 12.52        | -       | <b>12.96</b> |
|        | <b>General mean</b> | <b>13.56</b> | <b>12.94</b> | <b>13.25</b> | <b>12.79</b> | -       | <b>13.14</b> |
|        | SE                  | 0.44         | 0.13         | 0.11         | 0.19         | -       |              |
|        | CD (0.05)           | 1.36         | 0.27         | 0.32         | 0.58         | -       |              |
|        | CV                  | 5.69         | 1.20         | 1.40         | 2.58         | -       |              |

**Table 3.7.10 NMC ('000/ha) at harvest**

| S. No. | Entry               | Anaka palle   | Cuddalore     | Naya garh    | Nelli kuppam  | Vuyyuru      | Mean          |
|--------|---------------------|---------------|---------------|--------------|---------------|--------------|---------------|
| 1      | CoC 15339           | 69.38         | 114.02        | 92.34        | 124.67        | 66.67        | <b>93.42</b>  |
| 2      | CoOr 15346          | 106.05        | 111.55        | 99.02        | 119.67        | 49.69        | <b>97.20</b>  |
| 3      | CoC 16338           | 114.44        | 117.19        | 85.05        | 97.33         | 58.23        | <b>94.45</b>  |
| 4      | CoC 16339           | 120.62        | 117.82        | 95.09        | 94.00         | 50.21        | <b>95.55</b>  |
| 5      | CoV 16357           | 113.70        | 109.69        | 80.47        | 130.67        | 54.94        | <b>97.89</b>  |
|        | <b>Standards</b>    |               |               |              |               |              |               |
| 1      | CoV 92102           | 129.51        | 105.82        | 89.41        | 123.33        | 55.76        | <b>100.77</b> |
| 2      | Co 86249            | 107.53        | 103.98        | 82.14        | 136.33        | 67.18        | <b>99.43</b>  |
| 3      | Co 06030            | 72.59         | 106.89        | 87.97        | 111.67        | 40.95        | <b>84.01</b>  |
|        | <b>General mean</b> | <b>104.22</b> | <b>110.87</b> | <b>88.94</b> | <b>117.20</b> | <b>55.45</b> | <b>95.34</b>  |
|        | SE                  | 3.57          | 5.10          | 2.43         | 6.63          | 3.58         |               |
|        | CD (0.05)           | 10.94         | 10.94         | 7.37         | 20.13         | 10.46        |               |
|        | CV                  | 5.94          | 5.64          | 4.73         | 9.81          | 11.20        |               |

**Table 3.7.11 Stalk length (cm) at harvest**

| S. No. | Entry               | Anaka palle   | Cuddalore     | Naya garh     | Nelli kuppam  | Vuyyuru       | Mean          |
|--------|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1      | CoC 15339           | 250.00        | 242.00        | 242.00        | 230.00        | 296.30        | <b>252.06</b> |
| 2      | CoOr 15346          | 224.67        | 230.00        | 288.00        | 232.33        | 280.80        | <b>251.16</b> |
| 3      | CoC 16338           | 235.00        | 235.00        | 266.00        | 284.67        | 247.10        | <b>253.55</b> |
| 4      | CoC 16339           | 265.33        | 244.00        | 265.30        | 296.67        | 243.80        | <b>263.02</b> |
| 5      | CoV 16357           | 258.33        | 218.00        | 258.70        | 274.33        | 254.20        | <b>252.71</b> |
|        | <b>Standards</b>    |               |               |               |               |               |               |
| 1      | CoV 92102           | 252.67        | 216.00        | 237.30        | 277.67        | 264.20        | <b>249.57</b> |
| 2      | Co 86249            | 273.33        | 212.00        | 280.00        | 217.33        | 301.70        | <b>256.87</b> |
| 3      | Co 06030            | 222.67        | 219.00        | 281.00        | 249.67        | 255.80        | <b>245.63</b> |
|        | <b>General mean</b> | <b>247.75</b> | <b>227.00</b> | <b>264.80</b> | <b>257.83</b> | <b>268.00</b> | <b>253.08</b> |
|        | SE                  |               | 7.27          | 6.18          | 7.67          | 7.27          |               |
|        | CD (0.05)           |               | 15.60         | 18.76         | 23.28         | 21.28         |               |
|        | CV                  |               | 3.92          | 4.04          | 5.16          | 4.70          |               |

**Table 3.7.12 Stalk diameter (cm) at harvest**

| S. No. | Entry               | Anaka palle | Cuddalore   | Naya garh   | Nelli kuppam | Vuyyuru     | Mean        |
|--------|---------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| 1      | CoC 15339           | 2.21        | 3.01        | 2.27        | 2.45         | 2.71        | <b>2.53</b> |
| 2      | CoOr 15346          | 2.33        | 2.99        | 2.55        | 2.14         | 2.43        | <b>2.49</b> |
| 3      | CoC 16338           | 2.24        | 3.04        | 2.75        | 2.63         | 2.65        | <b>2.66</b> |
| 4      | CoC 16339           | 2.21        | 3.07        | 2.42        | 2.72         | 2.54        | <b>2.59</b> |
| 5      | CoV 16357           | 2.25        | 2.72        | 2.49        | 2.86         | 2.62        | <b>2.59</b> |
|        | <b>Standards</b>    |             |             |             |              |             |             |
| 1      | CoV 92102           | 2.14        | 2.82        | 2.74        | 2.40         | 2.41        | <b>2.50</b> |
| 2      | Co 86249            | 2.25        | 2.70        | 2.65        | 2.34         | 2.45        | <b>2.48</b> |
| 3      | Co 06030            | 2.35        | 2.85        | 2.76        | 2.59         | 2.97        | <b>2.70</b> |
|        | <b>General mean</b> | <b>2.25</b> | <b>2.90</b> | <b>2.58</b> | <b>2.52</b>  | <b>2.60</b> | <b>2.57</b> |
|        | SE                  |             | 0.08        | 0.04        | 0.12         | 0.10        |             |
|        | CD (0.05)           |             | 0.17        | 0.13        | 0.35         | 0.30        |             |
|        | CV                  |             | 3.41        | 2.85        | 7.96         | 6.90        |             |

**Table 3.7.13 Single cane weight (kg) at harvest**

| S. No. | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru | Mean        |
|--------|---------------------|----------------|---------------|--------------|-----------------|-------------|-------------|
| 1      | CoC 15339           | 0.94           | 1.43          | 1.37         | 1.09            | 1.44        | <b>1.25</b> |
| 2      | CoOr 15346          | 0.92           | 1.28          | 1.54         | 1.01            | 1.50        | <b>1.25</b> |
| 3      | CoC 16338           | 0.84           | 1.34          | 1.27         | 1.80            | 1.36        | <b>1.32</b> |
| 4      | CoC 16339           | 0.93           | 1.45          | 1.43         | 1.92            | 1.27        | <b>1.40</b> |
| 5      | CoV 16357           | 0.84           | 1.28          | 1.27         | 1.58            | 1.19        | <b>1.23</b> |
|        | <b>Standards</b>    |                |               |              |                 |             |             |
| 1      | CoV 92102           | 0.85           | 1.19          | 1.49         | 1.39            | 1.16        | <b>1.22</b> |
| 2      | Co 86249            | 0.85           | 1.06          | 1.41         | 1.00            | 1.38        | <b>1.14</b> |
| 3      | Co 06030            | 1.04           | 1.23          | 1.48         | 1.50            | 1.43        | <b>1.34</b> |
|        | <b>General mean</b> | <b>0.90</b>    | <b>1.28</b>   | <b>1.41</b>  | <b>1.41</b>     | <b>1.34</b> | <b>1.27</b> |
|        | SE                  | 0.08           | 0.12          | 0.04         | 0.67            | 0.07        |             |
|        | CD (0.05)           | NS             | 0.26          | 0.12         | 0.20            | 0.21        |             |
|        | CV                  | 15.78          | 11.63         | 5.01         | 8.25            | 9.30        |             |

**Table 3.7.14 Number of tillers ('000/ha) at 120 days**

| S. No. | Entry               | Anaka<br>palle<br>(180d) | Cudda<br>lore | Naya<br>garh | Nelli<br>kuppam | Vuyyu<br>ru  | Mean          |
|--------|---------------------|--------------------------|---------------|--------------|-----------------|--------------|---------------|
| 1      | CoC 15339           | 98.00                    | 124.25        | 99.06        | 130.00          | 84.36        | <b>107.13</b> |
| 2      | CoOr 15346          | 98.33                    | 122.12        | 105.08       | 149.33          | 61.42        | <b>107.26</b> |
| 3      | CoC 16338           | 122.33                   | 125.42        | 90.20        | 139.00          | 71.19        | <b>109.63</b> |
| 4      | CoC 16339           | 151.00                   | 128.06        | 106.91       | 129.33          | 63.68        | <b>115.80</b> |
| 5      | CoV 16357           | 126.67                   | 120.92        | 90.41        | 153.33          | 79.32        | <b>114.13</b> |
|        | <b>Standards</b>    |                          |               |              |                 |              |               |
| 1      | CoV 92102           | 133.33                   | 118.38        | 94.84        | 139.00          | 67.49        | <b>110.61</b> |
| 2      | Co 86249            | 151.67                   | 115.55        | 85.72        | 137.67          | 86.11        | <b>115.34</b> |
| 3      | Co 06030            | 89.00                    | 120.12        | 93.40        | 145.67          | 45.17        | <b>98.67</b>  |
|        | <b>General mean</b> | <b>121.29</b>            | <b>121.85</b> | <b>95.67</b> | <b>140.42</b>   | <b>69.84</b> | <b>109.81</b> |
|        | SE                  | 5.29                     | 3.83          | 2.47         | 10.68           | 3.35         |               |
|        | CD (0.05)           | 12.77                    | 8.21          | 7.49         | 32.39           | 9.80         |               |
|        | CV                  | 12.92                    | 3.85          | 4.47         | 13.17           | 8.30         |               |



**Table 3.7.15 Number of tillers ('000/ha) at 90 days**

| S. No. | Entry               | Anaka<br>palle | Cudda<br>lore | Naya<br>garh  | Nelli<br>kuppam | Vuyyu<br>ru   | Mean          |
|--------|---------------------|----------------|---------------|---------------|-----------------|---------------|---------------|
| 1      | CoC 15339           | 66.33          | 132.19        | 106.54        | 146.00          | 119.65        | <b>114.14</b> |
| 2      | CoOr 15346          | 88.33          | 131.39        | 111.91        | 165.00          | 106.28        | <b>120.58</b> |
| 3      | CoC 16338           | 98.33          | 135.37        | 95.93         | 154.00          | 85.19         | <b>113.76</b> |
| 4      | CoC 16339           | 86.67          | 138.33        | 112.01        | 145.33          | 107.61        | <b>117.99</b> |
| 5      | CoV 16357           | 76.33          | 129.53        | 95.39         | 171.00          | 120.89        | <b>118.63</b> |
|        | <b>Standards</b>    |                |               |               |                 |               |               |
| 1      | CoV 92102           | 92.67          | 128.66        | 102.25        | 153.33          | 106.07        | <b>116.60</b> |
| 2      | Co 86249            | 89.33          | 125.83        | 91.31         | 152.33          | 125.21        | <b>116.80</b> |
| 3      | Co 06030            | 53.33          | 130.40        | 98.57         | 166.00          | 64.61         | <b>102.58</b> |
|        | <b>General mean</b> | <b>81.42</b>   | <b>131.46</b> | <b>101.74</b> | <b>156.62</b>   | <b>104.44</b> | <b>115.14</b> |
|        | SE                  | 9.93           | 2.61          | 3.09          | 10.31           | 4.28          |               |
|        | CD (0.05)           | 22.29          | 7.92          | 9.39          | 31.28           | 12.53         |               |
|        | CV                  | 11.11          | 3.44          | 5.27          | 11.41           | 7.10          |               |

**Table 3.7.16 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| Entries          | Nellikuppam | Cuddalore | Vuyyuru | Anakapalle | Nayagarh |
|------------------|-------------|-----------|---------|------------|----------|
| CoC 15339        | N           | On par    | Better  | Better     | On par   |
| CoOr 15346       | O           | On par    | Better  | On par     | On par   |
| CoC 16338        |             | On par    | On par  | Poor       | Better   |
| CoC 16339        | V           | Better    | On par  | On par     | Better   |
| CoV 16357        | I           | On par    | On par  | On par     | On par   |
| <b>Standards</b> |             |           |         |            |          |
| CoV 92102        | D           | Best      | Best    | Best       | Best     |
| Co 86249         | E           | Better    | On par  | Better     | On par   |
| Co 06030         | O           | Better    | Poor    | On par     | Better   |

### 3.8 ADVANCED VARIETAL TRIAL (MIDLATE)

#### Pooled data of Two Plant + One Ratoon

|               |  |
|---------------|--|
| Centres (5)   | Anakapalle, Cuddalore, Nayagarh, Nellikuppam and Vuyyuru |
| Entries (5)   | CoC 15339, CoOr 15346, CoC 16338, CoC 16339, CoV 16357   |
| Standards (3) | CoV 92102, Co 86249, Co 06030                            |
| Design        | Randomized Block Design                                  |
| Replications  | Three  |
| Plot size     | Gross : 6.0 m x 8R x 0.9 m<br>Net : 5.0 m x 6R x 0.9 m   |

Five entries and three standards were evaluated under AVT I Plant during 2019-20 and AVT II Plant and AVT Ratoon during 2020-21 at five locations. The pooled mean of CCS yield, cane yield, CCS % and sucrose % at harvest of two plant crops and one ratoon crop are given in Tables 3.8.1 to 3.8.4 and figures 3.8.1 to 3.8.4. The salient results pertaining to CCS (t/ha), cane yield (t/ha), CCS % and sucrose % are provided below.

#### Commercial Cane Sugar (t/ha):

The entry CoC 16338 (13.53 t/ha) ranked second in the zone for CCS yield followed by CoV 16357 (13.45 t/ha) and CoC 16339 (13.36 t/ha) and the best standard was CoV 92102 (13.66 t/ha) which ranked first in the zone. No entry was superior to the best standard CoV 92102.

#### Cane Yield (t/ha):

CoC 16338 ranked first in the zone with an overall mean yield of 112.43 t/ha and 2.20 % improvement followed by CoC 16339 (111.79 t/ha) and CoV 16357 (110.89 t/ha) and were numerically superior to the best standard CoV 92102 (110.00 t/ha).

#### Commercial Cane Sugar (%):

The entry CoV 16357 recorded a mean CCS % of 12.27 followed by CoOr 15346 (12.23 %). No entry recorded more than 5 % improvement over the standard CoV 92102 (12.45 %) which ranked first in the zone.

#### Sucrose (%):

The entry CoV 16357 recorded a mean juice sucrose % of 17.82 followed by CoOr 15346 (17.56 %) and CoC 15339 (17.49 %). CoV 16357 was numerically superior to the standard CoV 92102 (17.69%). No entry recorded more than 5 % improvement over the best standard Co 06030 (17.86%) and CoV 92102.

#### Overall performance:

The pooled mean of two plant and one ratoon crops at five locations indicated that none of the entries recorded more than 10 % improvement for cane yield or more than 5 % improvement for juice quality in comparison to the standard CoV 92102 in the zone. No qualifying entry could be identified under midlate maturing group in this zone.

**Table 3.8.1 CCS at harvest (t/ha) - Pooled data of two plant and one ratoon crops**

| S. No. | Clone               | Anakapalle   |              |              |              | Cuddalore    |              |              |              | Nayagarh     |              |             |              |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|
|        |                     | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         | IP           | IIP          | R           | Mean         |
| 1      | CoC 15339           | 11.62        | 13.66        | 8.05         | 11.11        | 17.10        | 16.69        | 15.82        | 16.54        | 11.88        | 11.92        | 8.48        | 10.76        |
| 2      | CoOr 15346          | 11.89        | 12.67        | 11.57        | 12.04        | 15.84        | 16.87        | 15.64        | 16.12        | 13.35        | 14.10        | 9.96        | 12.47        |
| 3      | CoC 16338           | 11.73        | 13.51        | 10.96        | 12.07        | 15.92        | 17.42        | 16.67        | 16.67        | 10.79        | 12.01        | 8.13        | 10.31        |
| 4      | CoC 16339           | 12.20        | 14.64        | 13.12        | 13.32        | 16.94        | 17.13        | 16.15        | 16.74        | 10.67        | 11.53        | 8.13        | 10.11        |
| 5      | CoV 16357           | 12.73        | 14.10        | 11.35        | 12.73        | 15.70        | 16.04        | 14.82        | 15.52        | 9.14         | 9.97         | 8.30        | 9.14         |
|        | <b>Standards</b>    |              |              |              |              |              |              |              |              |              |              |             |              |
| 1      | CoV 92102           | 11.72        | 16.26        | 14.08        | 14.02        | 14.94        | 14.72        | 13.96        | 14.54        | 10.71        | 11.19        | 7.93        | 9.94         |
| 2      | Co 86249            | 11.55        | 14.03        | 12.36        | 12.65        | 13.74        | 14.37        | 13.38        | 13.83        | 10.66        | 11.38        | 8.39        | 10.14        |
| 3      | Co 06030            | 12.01        | 14.17        | 8.86         | 11.68        | 15.29        | 15.56        | 14.76        | 15.20        | 9.35         | 9.57         | 7.42        | 8.78         |
|        | <b>General mean</b> | <b>11.93</b> | <b>14.13</b> | <b>11.29</b> | <b>12.45</b> | <b>15.68</b> | <b>16.10</b> | <b>15.15</b> | <b>15.64</b> | <b>10.82</b> | <b>11.46</b> | <b>8.34</b> | <b>10.21</b> |
| S. No. | Clone               | Nellikuppam  |              |              |              | Vuyyuru      |              |              |              | GM           |              |             |              |
|        |                     | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         | IP           | IIP          | R           | Mean         |
| 1      | CoC 15339           | 13.78        | 12.37        | 12.66        | 12.94        | 15.72        | 14.56        | 12.52        | 14.27        | 13.12        |              |             |              |
| 2      | CoOr 15346          | 11.17        | 11.61        | 10.28        | 11.02        | 15.23        | 14.79        | 9.17         | 13.06        | 12.94        |              |             |              |
| 3      | CoC 16338           | 14.92        | 14.11        | 13.47        | 14.17        | 14.94        | 15.76        | 12.57        | 14.42        | 13.53        | 2            |             |              |
| 4      | CoC 16339           | 16.02        | 11.21        | 13.03        | 13.42        | 14.84        | 15.01        | 9.74         | 13.20        | 13.36        | 4            |             |              |
| 5      | CoV 16357           | 15.12        | 10.85        | 15.80        | 13.92        | 17.10        | 18.71        | 11.98        | 15.93        | 13.45        | 3            |             |              |
|        | <b>Standards</b>    |              |              |              |              |              |              |              |              |              |              |             |              |
| 1      | CoV 92102           | 14.01        | 16.45        | 13.89        | 14.78        | 15.89        | 17.96        | 11.23        | 15.03        | 13.66        | 1            |             |              |
| 2      | Co 86249            | 12.36        | 11.66        | 11.80        | 11.94        | 13.64        | 13.62        | 12.16        | 13.14        | 12.34        |              |             |              |
| 3      | Co 06030            | 13.62        | 16.52        | 13.45        | 14.53        | 12.40        | 17.92        | 8.42         | 12.91        | 12.62        |              |             |              |
|        | <b>General mean</b> | <b>13.87</b> | <b>13.10</b> | <b>13.05</b> | <b>13.34</b> | <b>14.97</b> | <b>16.04</b> | <b>10.97</b> | <b>13.99</b> | <b>13.13</b> |              |             |              |

**Table 3.8.2 Cane yield at harvest (t/ha) - Pooled data of two plant and one ratoon crops**

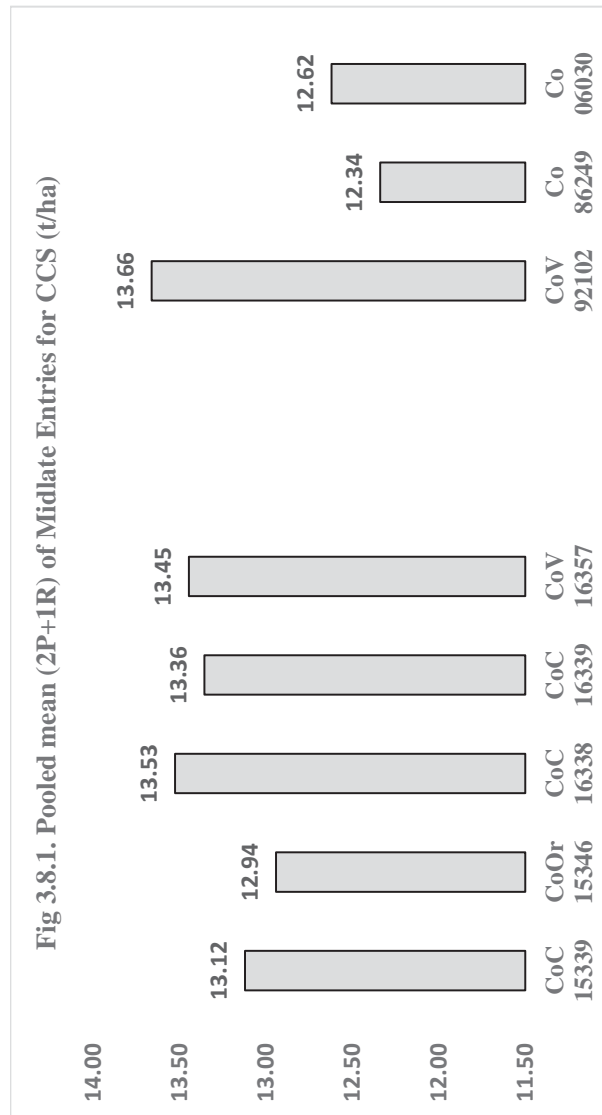
| S. No. | Clone               | Anakapalle    |               |               |               | Cuddalore     |               |               |               | Nayagarh      |              |              |               |
|--------|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|---------------|
|        |                     | IP            | IIP           | R             | Mean          | IP            | IIP           | R             | Mean          | IP            | IIP          | R            | Mean          |
| 1      | CoC 15339           | 103.33        | 113.60        | 65.45         | <b>94.13</b>  | 135.12        | 129.80        | 122.56        | <b>129.16</b> | 99.96         | 100.54       | 71.29        | <b>90.60</b>  |
| 2      | CoOr 15346          | 112.84        | 111.08        | 98.07         | <b>107.33</b> | 127.2         | 131.28        | 122.95        | <b>127.14</b> | 109.47        | 114.01       | 80.96        | <b>101.48</b> |
| 3      | CoC 16338           | 117.41        | 120.58        | 96.48         | <b>111.49</b> | 128.81        | 134.39        | 128.49        | <b>130.56</b> | 92.49         | 101.79       | 68.64        | <b>87.64</b>  |
| 4      | CoC 16339           | 114.44        | 125.96        | 112.31        | <b>117.57</b> | 133.41        | 133.46        | 125.55        | <b>130.81</b> | 91.83         | 98.70        | 68.96        | <b>86.50</b>  |
| 5      | CoV 16357           | 113.19        | 124.89        | 99.28         | <b>112.45</b> | 127.49        | 125.49        | 117.58        | <b>123.52</b> | 80.05         | 85.00        | 69.90        | <b>78.32</b>  |
|        | <b>Standards</b>    |               |               |               |               |               |               |               |               |               |              |              |               |
| 1      | CoV 92102           | 108.64        | 126.16        | 110.16        | <b>114.99</b> | 121.75        | 119.50        | 112.26        | <b>117.84</b> | 89.45         | 86.20        | 68.66        | <b>81.44</b>  |
| 2      | Co 86249            | 115.31        | 121.98        | 104.98        | <b>114.09</b> | 112.95        | 116.60        | 108.36        | <b>112.64</b> | 91.93         | 95.42        | 70.65        | <b>86.00</b>  |
| 3      | Co 06030            | 116.54        | 120.09        | 73.76         | <b>103.46</b> | 123.28        | 123.08        | 116.84        | <b>121.07</b> | 81.41         | 82.03        | 63.09        | <b>75.51</b>  |
|        | <b>General mean</b> | <b>112.71</b> | <b>120.54</b> | <b>95.06</b>  | <b>109.44</b> | <b>126.25</b> | <b>126.70</b> | <b>119.33</b> | <b>124.09</b> | <b>92.07</b>  | <b>96.71</b> | <b>70.27</b> | <b>86.35</b>  |
| S. No. | Clone               | Nellikuppam   |               |               |               | Vuyyuru       |               |               |               | GM            |              |              |               |
|        |                     | IP            | IIP           | R             | Mean          | IP            | IIP           | R             | Mean          | IP            | IIP          | R            | Rank          |
| 1      | CoC 15339           | 118.99        | 107.97        | 113.18        | <b>113.38</b> | 121.40        | 121.50        | 100.72        | <b>114.54</b> | <b>108.36</b> |              |              |               |
| 2      | CoOr 15346          | 101.24        | 94.69         | 94.12         | <b>96.68</b>  | 112.55        | 112.55        | 72.02         | <b>99.04</b>  | <b>106.34</b> |              |              |               |
| 3      | CoC 16338           | 116.60        | 125.08        | 115.12        | <b>118.93</b> | 119.24        | 119.14        | 102.16        | <b>113.51</b> | <b>112.43</b> | <b>1</b>     |              |               |
| 4      | CoC 16339           | 119.30        | 117.45        | 124.55        | <b>120.43</b> | 111.93        | 120.78        | 78.19         | <b>103.63</b> | <b>111.79</b> | <b>2</b>     |              |               |
| 5      | CoV 16357           | 135.74        | 101.08        | 142.22        | <b>126.35</b> | 125.62        | 135.19        | 80.56         | <b>113.79</b> | <b>110.89</b> | <b>3</b>     |              |               |
|        | <b>Standards</b>    |               |               |               |               |               |               |               |               |               |              |              |               |
| 1      | CoV 92102           | 122.15        | 140.77        | 122.23        | <b>128.38</b> | 117.18        | 128.09        | 76.85         | <b>107.37</b> | <b>110.00</b> | <b>4</b>     |              |               |
| 2      | Co 86249            | 116.98        | 116.96        | 114.83        | <b>116.26</b> | 114.51        | 113.89        | 100.31        | <b>109.57</b> | <b>107.71</b> |              |              |               |
| 3      | Co 06030            | 118.84        | 130.51        | 119.09        | <b>122.81</b> | 98.25         | 119.55        | 55.35         | <b>91.05</b>  | <b>102.78</b> |              |              |               |
|        | <b>General mean</b> | <b>120.17</b> | <b>116.81</b> | <b>118.17</b> | <b>118.38</b> | <b>115.08</b> | <b>121.33</b> | <b>83.27</b>  | <b>106.56</b> | <b>108.96</b> |              |              |               |

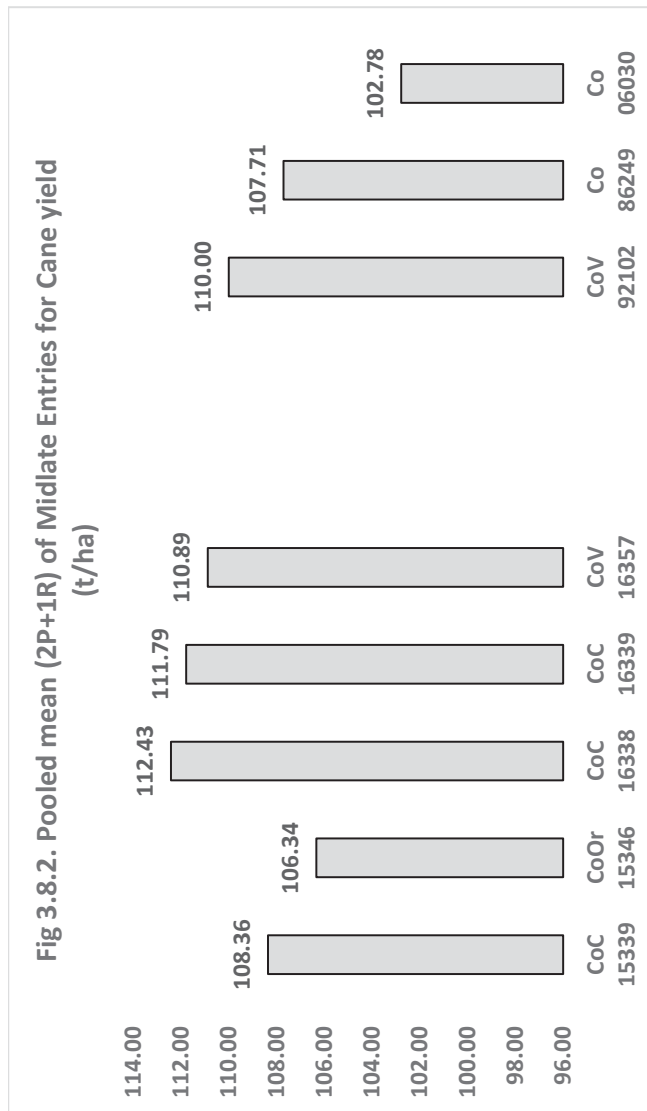
**Table 3.8.3 CCS (%) at harvest - Pooled data of two plant and one ratoon crops**

| S. No. | Clone               | Anakapalle   |              |              |              |  | Cuddalore    |              |              |              |  | Nayagarh     |              |              |              |  |
|--------|---------------------|--------------|--------------|--------------|--------------|--|--------------|--------------|--------------|--------------|--|--------------|--------------|--------------|--------------|--|
|        |                     | IP           | IIP          | R            | Mean         |  | IP           | IIP          | R            | Mean         |  | IP           | IIP          | R            | Mean         |  |
| 1      | CoC 15339           | 11.89        | 12.04        | 12.30        | <b>12.08</b> |  | 12.65        | 12.86        | 12.91        | <b>12.81</b> |  | 11.89        | 11.85        | 11.89        | <b>11.88</b> |  |
| 2      | CoOr 15346          | 11.72        | 11.41        | 11.79        | <b>11.64</b> |  | 12.45        | 12.86        | 12.72        | <b>12.68</b> |  | 12.20        | 12.37        | 12.30        | <b>12.29</b> |  |
| 3      | CoC 16338           | 11.26        | 11.21        | 11.37        | <b>11.28</b> |  | 12.37        | 12.96        | 12.98        | <b>12.77</b> |  | 11.68        | 11.80        | 11.84        | <b>11.77</b> |  |
| 4      | CoC 16339           | 11.62        | 11.62        | 11.69        | <b>11.64</b> |  | 12.69        | 12.84        | 12.86        | <b>12.80</b> |  | 11.63        | 11.63        | 11.79        | <b>11.68</b> |  |
| 5      | CoV 16357           | 12.21        | 11.26        | 12.59        | <b>12.02</b> |  | 12.33        | 12.78        | 12.60        | <b>12.57</b> |  | 11.41        | 11.73        | 11.87        | <b>11.67</b> |  |
|        | <b>Standards</b>    |              |              |              |              |  |              |              |              |              |  |              |              |              |              |  |
| 1      | CoV 92102           | 12.13        | 12.88        | 12.78        | <b>12.60</b> |  | 12.27        | 12.32        | 12.43        | <b>12.34</b> |  | 11.98        | 11.63        | 11.56        | <b>11.72</b> |  |
| 2      | Co 86249            | 11.35        | 11.50        | 11.81        | <b>11.55</b> |  | 12.16        | 12.32        | 12.34        | <b>12.27</b> |  | 11.59        | 11.93        | 11.88        | <b>11.80</b> |  |
| 3      | Co 06030            | 11.86        | 11.78        | 12.00        | <b>11.88</b> |  | 12.41        | 12.65        | 12.63        | <b>12.56</b> |  | 11.48        | 11.69        | 11.77        | <b>11.65</b> |  |
|        | <b>General mean</b> | <b>11.76</b> | <b>11.71</b> | <b>12.04</b> | <b>11.84</b> |  | <b>12.42</b> | <b>12.70</b> | <b>12.69</b> | <b>12.60</b> |  | <b>11.73</b> | <b>11.83</b> | <b>11.86</b> | <b>11.81</b> |  |
| S. No. | Clone               | Nellikuppam  |              |              |              |  | Vuyyuru      |              |              |              |  | GM           |              |              |              |  |
|        |                     | IP           | IIP          | R            | Mean         |  | IP           | IIP          | R            | Mean         |  | IP           | IIP          | R            | Mean         |  |
| 1      | CoC 15339           | 11.59        | 11.44        | 11.17        | <b>11.40</b> |  | 12.94        | 11.98        | 12.43        | <b>12.45</b> |  | 12.12        | 12.23        | 12.23        | <b>12.12</b> |  |
| 2      | CoOr 15346          | 11.02        | 12.32        | 10.91        | <b>11.42</b> |  | 13.54        | 13.14        | 12.73        | <b>13.14</b> |  | 12.23        | 12.01        |              | <b>12.01</b> |  |
| 3      | CoC 16338           | 11.65        | 11.28        | 11.71        | <b>11.55</b> |  | 12.54        | 13.23        | 12.30        | <b>12.69</b> |  | 12.01        |              |              | <b>12.01</b> |  |
| 4      | CoC 16339           | 10.87        | 9.56         | 10.47        | <b>10.30</b> |  | 12.90        | 12.43        | 12.46        | <b>12.60</b> |  | 11.80        |              |              | <b>11.80</b> |  |
| 5      | CoV 16357           | 11.14        | 10.74        | 11.11        | <b>11.00</b> |  | 13.62        | 13.84        | 14.88        | <b>14.11</b> |  | 12.27        | 3            |              | <b>12.27</b> |  |
|        | <b>Standards</b>    |              |              |              |              |  |              |              |              |              |  |              |              |              |              |  |
| 1      | CoV 92102           | 11.47        | 11.70        | 11.36        | <b>11.51</b> |  | 13.55        | 14.02        | 14.61        | <b>14.06</b> |  | 12.45        | 1            |              | <b>12.45</b> |  |
| 2      | Co 86249            | 10.56        | 9.99         | 10.27        | <b>10.27</b> |  | 11.90        | 11.96        | 12.12        | <b>11.99</b> |  | 11.58        | 2            |              | <b>11.58</b> |  |
| 3      | Co 06030            | 11.47        | 12.65        | 11.29        | <b>11.80</b> |  | 12.63        | 14.99        | 15.21        | <b>14.28</b> |  | 12.43        | 2            |              | <b>12.43</b> |  |
|        | <b>General mean</b> | <b>11.22</b> | <b>11.21</b> | <b>11.04</b> | <b>11.16</b> |  | <b>12.95</b> | <b>13.20</b> | <b>13.34</b> | <b>13.16</b> |  | <b>12.11</b> |              |              | <b>12.11</b> |  |

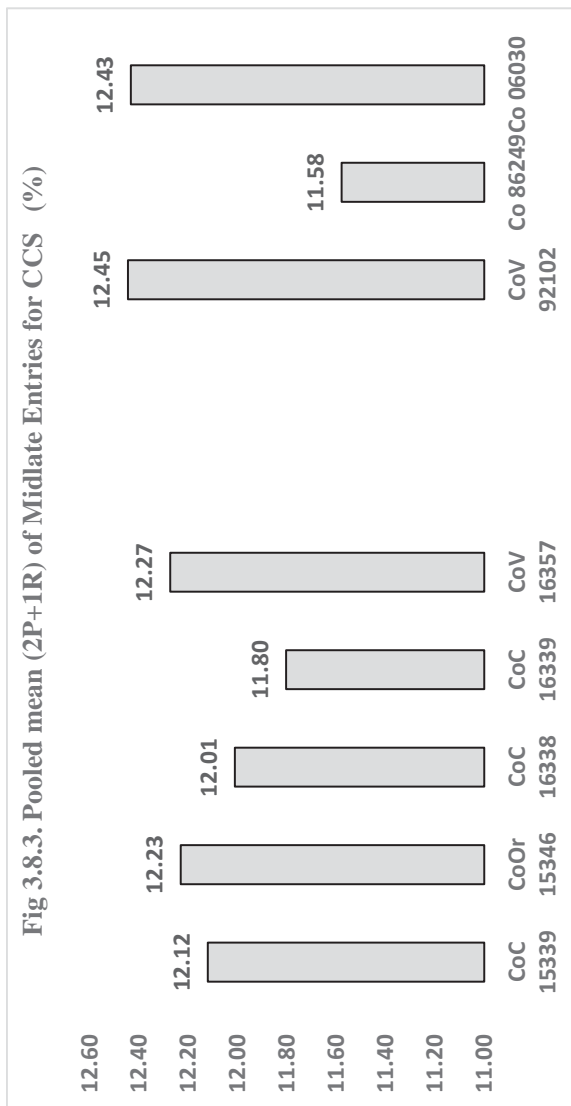
**Table 3.8.4 Sucrose (%) at harvest - Pooled data of two plant and one ratoon crops**

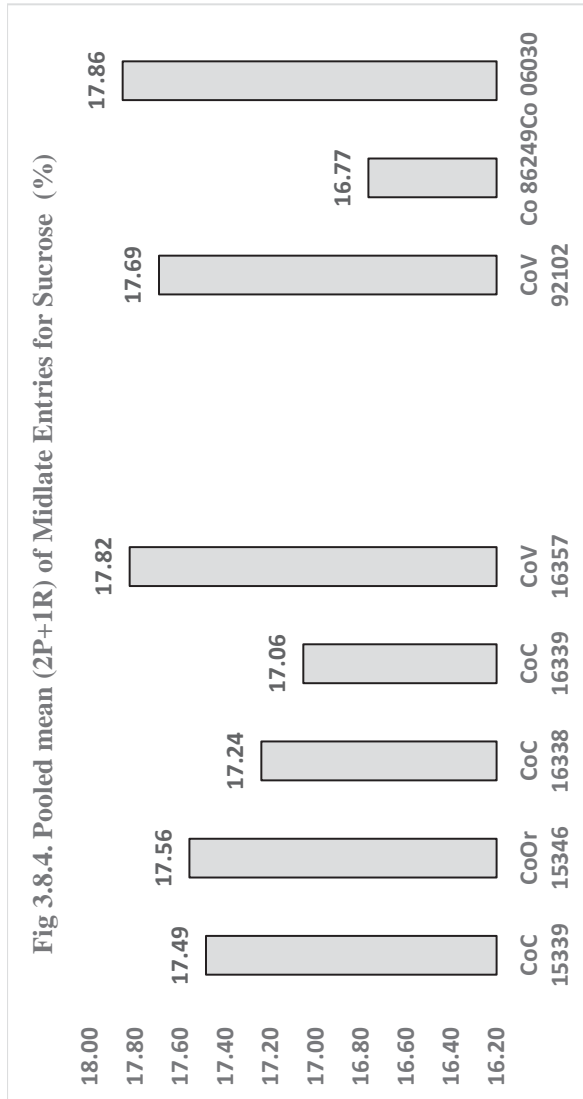
| S. No. | Clone               | Anakapalle   |              |              |              | Cuddalore    |              |              |              | Nayagarh     |              |              |              |
|--------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|        |                     | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         |
| 1      | CoC 15339           | 17.17        | 17.37        | 17.70        | 17.41        | 18.61        | 18.44        | 18.44        | 18.50        | 17.20        | 17.26        | 17.29        | 17.25        |
| 2      | CoOr 15346          | 16.93        | 16.60        | 16.98        | 16.84        | 18.14        | 18.49        | 18.15        | 18.26        | 17.72        | 17.82        | 17.81        | 17.78        |
| 3      | CoC 16338           | 16.30        | 16.23        | 16.38        | 16.30        | 18.24        | 18.44        | 18.53        | 18.40        | 17.07        | 17.20        | 17.22        | 17.16        |
| 4      | CoC 16339           | 16.80        | 16.80        | 16.86        | 16.82        | 18.44        | 18.20        | 18.52        | 18.39        | 17.04        | 17.14        | 17.23        | 17.14        |
| 5      | CoV 16357           | 17.60        | 18.03        | 18.02        | 17.88        | 18.22        | 18.18        | 18.00        | 18.13        | 16.56        | 17.01        | 17.28        | 16.95        |
|        | <b>Standards</b>    |              |              |              |              |              |              |              |              |              |              |              |              |
| 1      | CoV 92102           | 17.50        | 16.80        | 17.09        | 17.13        | 17.63        | 17.59        | 17.85        | 17.69        | 17.38        | 17.06        | 16.99        | 17.14        |
| 2      | Co 86249            | 16.43        | 17.10        | 17.27        | 16.93        | 17.89        | 17.54        | 17.84        | 17.76        | 17.01        | 17.36        | 17.31        | 17.23        |
| 3      | Co 06030            | 17.13        | 17.30        | 17.14        | 17.19        | 18.22        | 18.00        | 18.07        | 18.10        | 16.80        | 17.10        | 17.16        | 17.02        |
|        | <b>General mean</b> | <b>16.98</b> | <b>17.03</b> | <b>17.18</b> | <b>17.06</b> | <b>18.17</b> | <b>18.11</b> | <b>18.17</b> | <b>18.15</b> | <b>17.10</b> | <b>17.24</b> | <b>17.29</b> | <b>17.21</b> |
| S. No. | Clone               | Nellikuppam  |              |              |              | Vuyyuru      |              |              |              | GM           |              | Rank         |              |
|        |                     | IP           | IIP          | R            | Mean         | IP           | IIP          | R            | Mean         | GM           | Rank         |              |              |
| 1      | CoC 15339           | 16.59        | 16.35        | 16.09        | 16.34        | 18.67        | 17.29        | 17.83        | 17.93        | 17.49        |              | 4            |              |
| 2      | CoOr 15346          | 16.02        | 17.63        | 15.83        | 16.49        | 19.21        | 18.41        | 17.66        | 18.43        | 17.56        |              | 3            |              |
| 3      | CoC 16338           | 16.57        | 16.06        | 16.73        | 16.45        | 17.78        | 18.61        | 17.26        | 17.88        | 17.24        |              |              |              |
| 4      | CoC 16339           | 15.67        | 13.92        | 15.45        | 15.01        | 18.31        | 17.80        | 17.66        | 17.92        | 17.06        |              |              |              |
| 5      | CoV 16357           | 16.10        | 15.56        | 16.13        | 15.93        | 19.86        | 19.78        | 21.04        | 20.23        | 17.82        |              | 2            |              |
|        | <b>Standards</b>    |              |              |              |              |              |              |              |              |              |              |              |              |
| 1      | CoV 92102           | 16.71        | 16.73        | 16.55        | 16.66        | 19.36        | 19.70        | 20.48        | 19.85        | 17.69        |              |              |              |
| 2      | Co 86249            | 15.29        | 14.43        | 15.04        | 14.92        | 16.88        | 17.02        | 17.10        | 17.00        | 16.77        |              |              |              |
| 3      | Co 06030            | 16.43        | 18.06        | 16.28        | 16.92        | 17.78        | 21.04        | 21.33        | 20.05        | 17.86        |              | 1            |              |
|        | <b>General mean</b> | <b>16.17</b> | <b>16.09</b> | <b>16.02</b> | <b>16.09</b> | <b>18.48</b> | <b>18.71</b> | <b>18.80</b> | <b>18.66</b> | <b>17.44</b> |              |              |              |











#### 4. NORTH WEST ZONE

North West Zone of India comprises the states of Haryana, Punjab, Uttar Pradesh, Uttarakhand and Rajasthan. There are 10 AICRP (Sugarcane) centres in the zone and their locations are given below.

| State         | AICRP(S) centres                     |
|---------------|--------------------------------------|
| Haryana       | Karnal, Uchani                       |
| Punjab        | Faridkot, Kapurthala                 |
| Rajasthan     | Kota, Sriganganagar                  |
| Uttarakhand   | Pantnagar                            |
| Uttar Pradesh | Lucknow, Shahjahanpur, Muzaffarnagar |

#### List of trials conducted

Eight AICRP(S) trials was planned in NWZ during 2020-21. The number of trials conducted at each centre are given below.

| Sl No. | Location      | IVT Early | AVT Early I Plant | AVT Early II Plant | AVT Early Ratoon | IVT Midlate | AVT Midlate I Plant | AVT Midlate II Plant | AVT Midlate Ratoon |
|--------|---------------|-----------|-------------------|--------------------|------------------|-------------|---------------------|----------------------|--------------------|
| 1      | Faridkot      | C         | C                 | C                  | C                | C           | C                   | C                    | C                  |
| 2      | Kapurthala    | C         | C                 | C                  | C                | C           | C                   | C                    | C                  |
| 3      | Karnal        | C         | C                 | C                  | C                | -           | C                   | -                    | -                  |
| 4      | Kota          | C         | C                 | C                  | C                | C           | C                   | C                    | C                  |
| 5      | Lucknow       | C         | C                 | C                  | C                | C           | C                   | C                    | C                  |
| 6      | Muzaffarnagar | C         | C                 | C                  | C                | C           | C                   | C                    | C                  |
| 7      | Pantnagar     | C         | C                 | C                  | C                | C           | C-A                 | C                    | C                  |
| 8      | Shahjahanpur  | C         | C                 | C                  | C                | C           | C                   | C                    | C                  |
| 9      | Sriganganagar | C         | C                 | C                  | C                | C           | C                   | C                    | C                  |
| 10     | Uchani        | -         | C                 | -                  | -                | C           | -                   | C                    | C                  |

C= Conducted, NC= Not Conducted C-A Conducted but abandoned

#### 4.1 ADVANCED VARIETAL TRIAL (EARLY) - II PLANT

|               |   |
|---------------|---|
| Centres (9)   | Faridkot, Kapurthala, Karnal, Kota, Lucknow, Muzaffarnagar, Pantnagar, Shahjahanpur and Sriganaganagar. |
| Entries (6)   | Co 15023, Co 15024, Co 15027, CoLk 15201, CoLk 15205 and CoPb 15212                                     |
| Standards (3) | CoJ 64, Co 0238 and Co 05009  |
| Design        | RBD   |
| Replications  | Three   |
| Plot size     | Gross : 8 Rows x 6 m x 0.9 m<br>Net : 6 Rows x 5 m x 0.9 m  |
| Bud rate      | 12 buds per metre   |
| Planting time | February / March, 2020  |
| Crop duration | 10 months   |

##### Results of the previous year:

In the AVT (Early) I Plant trial, Co 0238 was the best among the standards for CCS yield with zonal mean of 13.34 t/ha. No test entry recorded higher CCS yield than Co 0238 although Co 15027 (13.29 t/ha) and CoLk 15201 (13.03 t/ha) ranked second and third positions, respectively in the zone for CCS yield. For cane yield, Co 0238 was the best among standards with a zonal mean of 106.93 t/ha. The test entry Co 15027 (109.93 t/ha) alone recorded numerically higher cane yield than Co 0238, but the per cent improvement over the best standard for cane yield was <10.0 %. For juice quality, CoJ 64 was the best among the standards with 12.56 % CCS and 18.13 % sucrose at harvest. Among the test entries, Co 15023 ranked first for CCS % at harvest (13.38) and sucrose % (19.28). Co 15023 was the only test entry in the zone that recorded >5 per cent improvement for CCS % and sucrose % over the best standard.

##### Results of the current year:

Six test entries and three standards (CoJ 64, Co 0238, Co 05009) were evaluated in RCBD design with three replications in nine locations across the North West Zone are presented in tables **4.1.1 to 4.1.20**. Co 0238 was the best standard for commercial cane sugar yield and cane yield with 11.67 t/ha and 94.42 t/ha respectively. Co 15027 (13.54 t/ha) ranked first in the zone and recorded 16.02 per cent improvement for CCS yield (t/ha) over the best standard (Co 0238) as well as significantly superior at Karnal, Kota, Muzaffarnagar and Pantnagar. Among the test entries, Co 15027 recorded the highest cane yield (107.87 t/ha) across the zone with 14.24 per cent improvement over the best standard Co 0238 (94.42 t/ha) as well as significantly superior over the best standard (Co 0238) at Karnal, Muzaffarnagar and Pantnagar. Co 0238 (12.31) was the best standard for CCS % in the zone. Co 15023 (13.02 %) top ranked entry for CCS % and recorded 5.77 % improvement over the best standard Co 0238 in the zone. CoJ 64 (17.91) was the best standard for sucrose % in the zone. Co 15023 (19.05 %) was the top ranked entry and recorded 6.37 % improvement over the best standard CoJ 64 in the zone, followed by Co 15027 with 17.89 % sucrose in the zone and recorded 5 % improvement over the best standard (Co 0238) at Kota.

**Qualifying entries:** The test entries, Co 15027 recorded 14.24 per cent improvement for cane yield and numerically superior for sucrose % compared to the best standard Co 0238. Hence, Co 15027 is a qualifying entry.

**Table 4.1.1. CCS yield at harvest (t/ha)**

| S. No. | Clone                               | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganga nagar | Mean         | Overall rank |
|--------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 15023                            | 8.57         | 10.37        | 20.31*       | 11.52        | 11.87        | 10.07          | 13.49*       | 12.07         | 12.71          | 12.33        | 2            |
| 2      | Co 15024                            | 12.45        | 9.75         | 13.21        | 11.30        | 9.29         | 8.59           | 9.76         | 10.71         | 13.86          | 10.99        |              |
| 3      | Co 15027                            | 14.85        | 11.81        | 19.99*       | 13.71*       | 9.82         | 12.94*         | 13.20*       | 11.35         | 14.20          | 13.54        | 1            |
| 4      | CoLk 15201                          | 11.08        | 10.58        | 12.08        | 10.43        | 14.89*       | 12.27*         | 11.69*       | 12.04         | 13.24          | 12.03        | 3            |
| 5      | CoLk 15205                          | 11.05        | 8.52         | 10.09        | 10.74        | 12.25*       | 8.21           | 5.27         | 12.61         | 15.42          | 10.46        |              |
| 6      | CoPb 15212                          | 12.74        | 11.28        | 11.99        | 10.72        | 11.18        | 8.91           | 7.87         | 10.51         | 12.51          | 10.86        |              |
|        | <b>Standards</b>                    |              |              |              |              |              |                |              |               |                |              |              |
| 1      | CoJ 64                              | 11.26        | 9.34         | 10.83        | 9.14         | 8.94         | 10.87          | 9.44         | 10.09         | 13.78          | 10.41        |              |
| 2      | Co 0238                             | 12.08        | 10.94        | 14.95        | 10.32        | 10.70        | 11.01          | 9.81         | 12.83         | 12.40          | 11.67        |              |
| 3      | Co 05009                            | 14.11        | 10.55        | 14.31        | 9.63         | 7.19         | 8.99           | 9.57         | 10.37         | 14.12          | 10.98        |              |
|        | <b>GM</b>                           | <b>12.22</b> | <b>10.35</b> | <b>14.20</b> | <b>10.83</b> | <b>10.68</b> | <b>10.21</b>   | <b>10.01</b> | <b>11.40</b>  | <b>13.58</b>   | <b>10.48</b> |              |
|        | SE                                  | 0.69         | 0.39         | 1.12         | 0.89         | 0.66         | 0.35           | 0.34         | 0.44          | 0.54           |              |              |
|        | CD                                  | 2.05         | 1.18         | 3.38         | 2.16         | 1.39         | 0.74           | 1.02         | 1.31          | 1.56           |              |              |
|        | CV                                  | 9.78         | 6.57         | 13.63        | 14.25        | 7.54         | 11.31          | 5.81         | 6.66          | 2.54           |              |              |
|        | Qualifying entries at each location |              |              |              |              |              |                |              |               |                |              |              |
| 1      |                                     | -            | -            | Co 15023     | Co 15027     | CoLk 15201   | Co 15027       | Co 15023     | -             | -              | Co 15027     |              |
| 2      |                                     | -            | -            | Co 15027     | Co 15023     | CoLk 15205   | CoLk 15201     | Co 15027     | -             | -              | -            |              |
| 3      |                                     | -            | -            | -            | -            | Co 15023     |                | CoLk 15201   | -             | -              | -            |              |

**No. of locations where an entry recorded >10% improvement:** Co 15023 (4), Co 15027 (4), CoLk 15201 (3) and CoLk 15205 (1).

**Performance across the locations:**

Co 0238 (11.67 t/ha) was the best standard for commercial cane sugar yield (t/ha). Co 15027 (13.54 t/ha) ranked first and recorded >10 per cent improvement in CCS yield (t/ha) over the best standard Co 0238 in the zone as well as 10 % improvement and significantly superior over the best standard (Co 0238) at Karnal, Kota, Muzaffarnagar and Pantnagar. Co 15023 (12.33 t/ha) ranked second with 5.66 % improvement over best standard (Co 0238) across locations, and also significantly superior over the best standard Co 0238 at Karnal and Pantnagar. The entry Co 15027 recorded more than 16.02 per cent improvement over the best standard Co 0238 for CCS (t/ha) across locations.

**Table 4.1.2. Cane Yield at harvest (t/ha)**

| S. No. | Clone                               | Faridkot      | Kapur thala  | Karnal        | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean          | Overall rank |
|--------|-------------------------------------|---------------|--------------|---------------|--------------|--------------|----------------|--------------|---------------|-----------------|---------------|--------------|
| 1      | Co 15023                            | 61.11         | 79.74        | 135.87*       | 90.91        | 91.41        | 78.35          | 103.37*      | 93.71         | 93.21           | <b>91.96</b>  |              |
| 2      | Co 15024                            | 112.35        | 82.07        | 100.76        | 92.43        | 75.50        | 70.25          | 82.53        | 90.12         | 96.30           | <b>89.15</b>  |              |
| 3      | Co 15027                            | 125.00        | 95.34        | 147.29*       | 100.19       | 85.43        | 104.81*        | 108.13*      | 100.98        | 103.70          | <b>107.87</b> | <b>1</b>     |
| 4      | CoLk 15201                          | 107.41        | 86.67        | 93.87         | 87.15        | 116.59*      | 100.17*        | 101.08*      | 102.65        | 100.00          | <b>99.51</b>  | <b>2</b>     |
| 5      | CoLk 15205                          | 93.52         | 68.75        | 78.03         | 85.20        | 96.50*       | 68.27          | 42.64        | 101.01        | 112.96          | <b>82.99</b>  |              |
| 6      | CoPb 15212                          | 112.35        | 93.37        | 95.58         | 89.08        | 92.69        | 70.99          | 64.36        | 91.27         | 90.86           | <b>88.95</b>  |              |
|        | <b>Standards</b>                    |               |              |               |              |              |                |              |               |                 |               |              |
| 1      | CoJ 64                              | 88.89         | 76.84        | 83.18         | 77.77        | 71.63        | 68.64          | 74.63        | 86.63         | 97.65           | <b>80.65</b>  |              |
| 2      | Co 0238                             | 101.54        | 92.83        | 110.73        | 84.01        | 83.33        | 84.44          | 79.25        | 106.33        | 107.28          | <b>94.42</b>  | <b>3</b>     |
| 3      | Co 05009                            | 117.59        | 83.48        | 109.58        | 80.66        | 60.46        | 73.32          | 79.00        | 84.19         | 104.32          | <b>88.07</b>  |              |
|        | <b>GM</b>                           | <b>102.20</b> | <b>84.34</b> | <b>106.10</b> | <b>87.49</b> | <b>85.95</b> | <b>79.91</b>   | <b>81.67</b> | <b>95.21</b>  | <b>100.70</b>   | <b>91.51</b>  |              |
|        | SE                                  | 6.22          | 2.01         | 8.12          | 6.81         | 5.08         | 1.77           | 2.14         | 2.88          | 2.98            |               |              |
|        | CD                                  | 18.47         | 6.02         | 24.56         | 16.46        | 10.77        | 3.75           | 6.48         | 8.64          | 8.60            |               |              |
|        | CV                                  | 10.41         | 4.13         | 13.26         | 13.47        | 7.24         | 7.32           | 4.55         | 5.24          | 11.85           |               |              |
|        | Qualifying entries at each location |               |              |               |              |              |                |              |               |                 |               |              |
| 1      | -                                   | -             | -            | Co 15027      | Co 15027     | CoLk 15201   | Co 15027       | Co 15027     | -             | -               | Co 15027      |              |
| 2      | -                                   | -             | -            | Co 15023      | Co 15024     | CoLk 15205   | CoLk 15201     | Co 15023     | -             | -               | -             |              |
| 3      | -                                   | -             | -            | -             | -            | CoPb 15212   | -              | CoLk 15201   | -             | -               | -             |              |

**No. of locations where an entry recorded >10% improvement:** Co 15027 (4), CoLk 15201 (3), Co 15023 (2), Co 15024 (1), CoLk 15205 (1) and CoPb 15212 (1).

**Performance across the locations:**

Co 0238 (94.42 t/ha) was the best standard for cane yield in the zone. Co 15027 (107.87 t/ha) was the top yielder and recorded >10 per cent improvement across locations over best standard Co 0238 in the zone as well as >10 % improvement over the best standard Co 0238 at Karnal, Muzaffarnagar, Pantnagar and Kota. CoLk 15201 (99.51 t/ha) ranked second with 5.39 % improvement over best standard Co 0238 across locations and 10 per cent improvement and significantly superior over the best standard Co 0238 at Lucknow, Muzaffarnagar and Pantnagar. The entry Co 15027 recorded more than 14.24 per cent improvement over the best standard Co 0238 for cane yield (t/ha) across locations.

**Table 4.1.3. CCS (%) at harvest**

| S. No. | Clone                               | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         | Overall rank |
|--------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15023                            | 14.04*       | 12.99        | 14.95*       | 12.68        | 12.99        | 12.91          | 13.04        | 12.88         | 10.68           | <b>13.02</b> | <b>1</b>     |
| 2      | Co 15024                            | 11.11        | 11.87        | 13.11        | 12.23        | 12.32        | 12.24          | 11.82        | 11.89         | 11.43           | <b>12.00</b> |              |
| 3      | Co 15027                            | 11.88        | 12.36        | 13.56        | 13.67*       | 11.51        | 12.36          | 12.21        | 11.23         | 10.73           | <b>12.17</b> |              |
| 4      | CoLk 15201                          | 10.32        | 12.22        | 12.85        | 11.90        | 12.76        | 12.30          | 11.57        | 11.72         | 10.26           | <b>11.77</b> |              |
| 5      | CoLk 15205                          | 11.82        | 12.39        | 12.93        | 12.58        | 12.68        | 12.09          | 12.35        | 12.49         | 10.64           | <b>12.22</b> |              |
| 6      | CoPb 15212                          | 11.34        | 12.07        | 12.54        | 12.02        | 12.07        | 12.53          | 12.23        | 11.52         | 10.82           | <b>11.90</b> |              |
|        | <b>Standards</b>                    |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64                              | 12.68        | 12.16        | 12.95        | 11.77        | 12.47        | 13.16          | 12.66        | 11.64         | 11.15           | <b>12.29</b> | <b>3</b>     |
| 2      | Co 0238                             | 11.90        | 11.78        | 13.49        | 12.28        | 12.84        | 13.04          | 12.40        | 12.06         | 11.02           | <b>12.31</b> | <b>2</b>     |
| 3      | Co 05009                            | 12.00        | 12.63        | 13.09        | 11.95        | 11.96        | 12.29          | 12.11        | 12.30         | 10.59           | <b>12.10</b> |              |
|        | <b>GM</b>                           | <b>11.93</b> | <b>12.27</b> | <b>13.27</b> | <b>12.34</b> | <b>12.40</b> | <b>12.55</b>   | <b>12.26</b> | <b>11.97</b>  | <b>10.81</b>    | <b>12.20</b> |              |
|        | SE                                  | 0.12         | 0.37         | 0.24         | 0.18         | 0.48         | 0.22           | 0.19         | 0.21          | 0.34            |              |              |
|        | CD                                  | 0.35         | NS           | 0.72         | 0.43         | NS           | 0.47           | 0.57         | 0.63          | 0.98            |              |              |
|        | CV                                  | 1.73         | 3.47         | 3.12         | 2.49         | 4.74         | 2.16           | 2.65         | 3.02          | 4.24            |              |              |
|        | Qualifying entries at each location |              |              |              |              |              |                |              |               |                 |              |              |
|        | 1                                   | Co 15023     | -            | Co 15023     | Co 15027     | -            | -              | -            | -             | -               | Co 15023     |              |
|        | 2                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |
|        | 3                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |

**No. of locations where an entry recorded >5% improvement: Co 15023 (2) and Co 15027 (1).**

**Performance across the locations:**

Co 0238 (12.31) was the best standard for CCS % in the zone. Co 15023 (13.02 %) was top ranked entry and recorded more than 5% improvement and also significantly superior over the best standard at Faridkot and Karnal. Co 15023 recorded 5.77 % improvement over the best standard Co 0238 across locations.

**Table 4.1.4. Sucrose (%) at harvest**

| S. No. | Clone                               | Faridkot     | Kapurt hala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hampur | Sriganaga nagar | Mean         | Overall rank |
|--------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15023                            | 19.86*       | 18.86        | 21.15*       | 18.38        | 19.02        | 18.84          | 18.96        | 18.65         | 17.72           | <b>19.05</b> | <b>1</b>     |
| 2      | Co 15024                            | 15.77        | 17.02        | 18.75        | 17.76        | 17.95        | 17.71          | 17.30        | 17.35         | 19.06*          | <b>17.63</b> |              |
| 3      | Co 15027                            | 16.8         | 17.79        | 19.29        | 19.72*       | 16.76        | 17.97          | 17.76        | 16.49         | 18.47           | <b>17.89</b> | <b>3</b>     |
| 4      | CoLk 15201                          | 14.93        | 17.60        | 18.53        | 17.32        | 18.48        | 17.87          | 16.87        | 17.11         | 18.03           | <b>17.42</b> |              |
| 5      | CoLk 15205                          | 17           | 17.76        | 18.54        | 18.24        | 18.40        | 17.53          | 17.92        | 18.14         | 17.37           | <b>17.88</b> |              |
| 6      | CoPb 15212                          | 16.24        | 17.41        | 17.88        | 17.49        | 17.68        | 18.20          | 17.77        | 16.83         | 17.67           | <b>17.46</b> |              |
|        | <b>Standards</b>                    |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64                              | 17.98        | 17.61        | 18.45        | 17.14        | 18.08        | 19.09          | 18.31        | 17.01         | 17.51           | <b>17.91</b> | <b>2</b>     |
| 2      | Co 0238                             | 17.02        | 16.76        | 19.31        | 17.83        | 18.60        | 18.90          | 18.00        | 17.56         | 16.63           | <b>17.85</b> |              |
| 3      | Co 05009                            | 17.12        | 18.44        | 18.62        | 17.38        | 17.43        | 17.85          | 17.68        | 17.88         | 18.09           | <b>17.83</b> |              |
|        | <b>GM</b>                           | <b>17.01</b> | <b>17.69</b> | <b>18.95</b> | <b>17.92</b> | <b>18.04</b> | <b>18.22</b>   | <b>17.84</b> | <b>17.45</b>  | <b>17.84</b>    | <b>17.88</b> |              |
|        | SE                                  | 0.15         | 0.49         | 0.31         | 0.24         | 0.63         | 0.29           | 0.24         | 0.27          | 0.32            |              |              |
|        | CD                                  | 0.46         | 1.08         | 0.94         | 0.58         | 1.33         | 0.62           | 0.72         | 0.82          | 0.96            |              |              |
|        | CV                                  | 1.57         | 3.53         | 2.85         | 2.32         | 4.25         | 1.95           | 2.31         | 2.71          | 2.27            |              |              |
|        | Qualifying entries at each location |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | Co 15023                            | -            | -            | Co 15023     | Co 15027     | -            | -              | -            | -             | Co 15024        | Co 15023     |              |
| 2      | -                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |
| 3      | -                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |

**No. of locations where an entry recorded >5% improvement:** Co 15023 (2), Co 15024 (1) and Co 15027 (1).

**Performance across the locations:**

CoJ 64 (17.91 %) was the best standard for sucrose % in the zone. Co 15023 (19.05 %) was the top ranked entry and recorded more than 5% improvement as well as significantly superior over the best standards at Faridkot and Karnal followed by Co 15027 with 17.89 % sucrose in the zone and recorded 5 % improvement over the best standard at Kota. Co 15023 recorded >5% improvement over the best standard CoJ 64 for sucrose across locations.



**Table 4.1.5. Brix (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | Co 15023         | 21.43        | 21.53        | 22.84        | 20.90        | 22.09        | 21.72          | 21.70        | 21.17         | 19.84           | <b>21.47</b> |
| 2      | Co 15024         | 17.13        | 18.93        | 20.71        | 20.30        | 20.62        | 20.09          | 20.10        | 20.00         | 21.64           | <b>19.95</b> |
| 3      | Co 15027         | 18.10        | 19.93        | 21.07        | 22.20        | 19.22        | 20.55          | 20.37        | 19.28         | 20.54           | <b>20.14</b> |
| 4      | CoLk 15201       | 16.9         | 19.77        | 20.84        | 19.87        | 20.96        | 20.42          | 19.43        | 19.74         | 20.37           | <b>19.81</b> |
| 5      | CoLk 15205       | 19.03        | 19.73        | 20.62        | 20.77        | 20.96        | 19.95          | 20.43        | 20.70         | 19.46           | <b>20.18</b> |
| 6      | CoPb 15212       | 18.00        | 19.6         | 19.65        | 20.03        | 20.55        | 20.79          | 20.33        | 19.47         | 19.84           | <b>19.81</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 19.53        | 20.00        | 20.23        | 19.70        | 20.59        | 21.75          | 20.73        | 19.65         | 19.75           | <b>20.21</b> |
| 2      | Co 0238          | 18.80        | 18.3         | 21.38        | 20.37        | 21.10        | 21.49          | 20.57        | 20.15         | 19.74           | <b>20.21</b> |
| 3      | Co 05009         | 18.83        | 21.27        | 20.35        | 19.93        | 20.07        | 20.35          | 20.40        | 20.46         | 20.37           | <b>20.23</b> |
|        | <b>GM</b>        | <b>18.70</b> | <b>19.89</b> | <b>20.85</b> | <b>20.45</b> | <b>20.69</b> | <b>20.79</b>   | <b>20.45</b> | <b>20.07</b>  | <b>20.17</b>    | <b>20.22</b> |
|        | SE               | 0.16         | 0.53         | 0.3          | 0.23         | 0.68         | 0.34           | 0.20         | 0.24          | 0.43            |              |
|        | CD               | 0.48         | 1.59         | 0.89         | 0.56         | 1.43         | 0.72           | 0.59         | 0.73          | 1.25            |              |
|        | CV               | 1.49         | 4.62         | 2.45         | 1.97         | 4.00         | 1.99           | 1.66         | 2.09          | 2.97            |              |

**Table 4.1.6. Purity (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Srganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|
| 1      | Co 15023         | 92.67        | 87.59        | 92.60        | 87.95        | 86.16        | 87.94          | 87.36        | 88.10         | 84.24          | <b>88.29</b> |
| 2      | Co 15024         | 92.01        | 89.93        | 90.54        | 87.50        | 87.00        | 88.18          | 86.08        | 86.72         | 91.41          | <b>88.82</b> |
| 3      | Co 15027         | 92.82        | 89.23        | 91.53        | 88.83        | 87.21        | 87.43          | 87.21        | 85.51         | 83.43          | <b>88.13</b> |
| 4      | CoLk 15201       | 88.33        | 89.03        | 88.89        | 87.15        | 88.15        | 87.51          | 86.80        | 86.67         | 85.61          | <b>87.57</b> |
| 5      | CoLk 15205       | 89.32        | 90.06        | 89.91        | 87.85        | 87.77        | 87.86          | 87.68        | 87.63         | 87.12          | <b>88.36</b> |
| 6      | CoPb 15212       | 90.21        | 88.96        | 91.01        | 87.29        | 86.08        | 87.57          | 87.40        | 86.44         | 84.00          | <b>87.66</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                |              |
| 1      | CoJ 64           | 92.06        | 88.11        | 91.17        | 87.02        | 87.79        | 87.77          | 88.30        | 86.56         | 86.94          | <b>88.41</b> |
| 2      | Co 0238          | 90.54        | 91.58        | 90.31        | 87.55        | 88.13        | 87.97          | 87.53        | 87.10         | 88.32          | <b>88.78</b> |
| 3      | Co 05009         | 90.91        | 86.74        | 91.48        | 87.21        | 86.78        | 87.68          | 86.67        | 87.37         | 87.24          | <b>88.01</b> |
|        | <b>GM</b>        | <b>90.94</b> | <b>89.02</b> | <b>90.83</b> | <b>87.59</b> | <b>87.23</b> | <b>87.76</b>   | <b>87.23</b> | <b>86.90</b>  | <b>86.48</b>   | <b>88.23</b> |
|        | SE               | 0.4          | 1.01         | 0.51         | 0.18         | 1.57         | 0.48           | 0.37         | 0.35          | 2.43           |              |
|        | CD               | 1.18         | NS           | 1.55         | 0.44         | NS           | NS             | 1.13         | 1.06          | 7.05           |              |
|        | CV               | 0.76         | 2.31         | 0.98         | 0.36         | 2.21         | 0.67           | 0.74         | 0.70          | 3.95           |              |

**Table 4.1.7. Pol % cane at harvest**

| S. No. | Clone            | Faridkot | Kapur thala  | Karnal       | Kota | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|----------|--------------|--------------|------|--------------|----------------|------------|---------------|-----------------|--------------|
| 1      | Co 15023         | -        | 14.99        | 16.59        |      | 14.44        | 14.78          | -          | 14.18         | -               | <b>15.00</b> |
| 2      | Co 15024         | -        | 13.91        | 14.47        |      | 13.68        | 13.94          | -          | 13.18         | -               | <b>13.84</b> |
| 3      | Co 15027         | -        | 13.67        | 15.13        |      | 12.89        | 13.89          | -          | 12.53         | -               | <b>13.62</b> |
| 4      | CoLk 15201       | -        | 13.63        | 14.21        |      | 14.09        | 14.00          | -          | 12.96         | -               | <b>13.78</b> |
| 5      | CoLk 15205       | -        | 14.68        | 13.34        |      | 13.89        | 13.77          | -          | 13.80         | -               | <b>13.90</b> |
| 6      | CoPb 15212       | -        | 14.63        | 13.06        |      | 13.32        | 14.13          | -          | 12.84         | -               | <b>13.60</b> |
|        | <b>Standards</b> |          |              |              |      |              |                |            |               |                 |              |
| 1      | CoJ 64           | -        | 14.13        | 14.6         |      | 13.77        | 14.61          | -          | 12.91         | -               | <b>14.00</b> |
| 2      | Co 0238          | -        | 14.00        | 14.93        |      | 14.07        | 14.45          | -          | 13.39         | -               | <b>14.17</b> |
| 3      | Co 05009         | -        | 14.81        | 13.98        |      | 13.18        | 13.72          | -          | 13.56         | -               | <b>13.85</b> |
|        | <b>GM</b>        | -        | <b>14.27</b> | <b>14.48</b> |      | <b>13.70</b> | <b>14.14</b>   | -          | <b>13.26</b>  | -               | <b>13.97</b> |
|        | SE               | -        | 0.46         | 0.25         |      | 0.51         | -              | -          | 0.21          | -               |              |
|        | CD               | -        | 0.84         | 0.75         |      | NS           | -              | -          | 0.63          | -               |              |
|        | CV               | -        | 3.40         | 2.95         |      | 4.54         | -              | -          | 2.74          | -               |              |

**Table 4.1.8. Extraction (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|-----------------|--------------|
| 1      | Co 15023         | 51.76        | 58.64        | 62.74        | 39.14        | 51.42        | 49.59          | -          | 55.73         | 50.94           | <b>52.50</b> |
| 2      | Co 15024         | 53.27        | 55.79        | 64.07        | 42.26        | 51.14        | 47.91          | -          | 58.34         | 45.73           | <b>52.31</b> |
| 3      | Co 15027         | 55.67        | 56.87        | 58.07        | 46.29        | 53.38        | 52.50          | -          | 58.08         | 48.81           | <b>53.71</b> |
| 4      | CoLk 15201       | 50.01        | 53.51        | 59.71        | 43.34        | 49.54        | 44.17          | -          | 51.61         | 49.8            | <b>50.21</b> |
| 5      | CoLk 15205       | 50.30        | 53.82        | 54.19        | 42.27        | 50.83        | 48.05          | -          | 55.46         | 52.68           | <b>50.95</b> |
| 6      | CoPb 15212       | 49.19        | 54.44        | 56.84        | 45.61        | 50.41        | 49.38          | -          | 58.34         | 49.62           | <b>51.73</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |            |               |                 |              |
| 1      | CoJ 64           | 49.79        | 55.03        | 62.69        | 49.31        | 49.65        | 51.37          | -          | 57.91         | 46.61           | <b>52.80</b> |
| 2      | Co 0238          | 53.02        | 58.11        | 64.17        | 47.62        | 51.41        | 50.74          | -          | 60.28         | 48.13           | <b>54.19</b> |
| 3      | Co 05009         | 55.55        | 54.70        | 60.88        | 45.66        | 47.76        | 49.41          | -          | 56.82         | 50.93           | <b>52.71</b> |
|        | <b>GM</b>        | <b>51.90</b> | <b>55.65</b> | <b>60.37</b> | <b>44.61</b> | <b>50.62</b> | <b>49.24</b>   | <b>-</b>   | <b>56.95</b>  | <b>49.25</b>    | <b>52.34</b> |
|        | SE               | 0.47         | 0.28         | 1.12         | 0.46         | 2.19         | -              | -          | 1.49          | 0.94            |              |
|        | CD               | 1.39         | NS           | 3.40         | 1.11         | NS           | -              | -          | 4.46          | 2.77            |              |
|        | CV               | 1.57         | 4.38         | 3.22         | 1.79         | 5.30         | -              | -          | 4.52          | 3.07            |              |

**Table 4.1.9. Fibre (%) at harvest**

| S. No. | Clone            | Faridkot | Kapur thala  | Karnal | Kota | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hampur | Sriganaga nagar | Mean         |
|--------|------------------|----------|--------------|--------|------|--------------|----------------|------------|---------------|-----------------|--------------|
| 1      | Co 15023         | -        | 13.09        | -      | -    | 14.08        | 13.27          | -          | 13.96         | -               | 13.60        |
| 2      | Co 15024         | -        | 13.48        | -      | -    | 13.82        | 13.58          | -          | 13.68         | -               | 13.64        |
| 3      | Co 15027         | -        | 12.78        | -      | -    | 13.13        | 13.44          | -          | 13.51         | -               | 13.22        |
| 4      | CoLk 15201       | -        | 14.49        | -      | -    | 13.72        | 13.88          | -          | 13.70         | -               | 13.95        |
| 5      | CoLk 15205       | -        | 14.71        | -      | -    | 14.53        | 13.9           | -          | 13.50         | -               | 14.16        |
| 6      | CoPb 15212       | -        | 14.35        | -      | -    | 14.63        | 13.85          | -          | 13.23         | -               | 14.02        |
|        | <b>Standards</b> |          |              |        |      |              |                |            |               |                 |              |
| 1      | CoJ 64           | -        | 13.46        | -      | -    | 13.83        | 13.3           | -          | 13.69         | -               | 13.57        |
| 2      | Co 0238          | -        | 14.04        | -      | -    | 14.32        | 13.52          | -          | 13.5          | -               | 13.85        |
| 3      | Co 05009         | -        | 14.01        | -      | -    | 14.40        | 13.6           | -          | 14.04         | -               | 14.01        |
|        | <b>GM</b>        | -        | <b>13.82</b> | -      | -    | <b>14.05</b> | <b>13.59</b>   | -          | <b>13.65</b>  | -               | <b>13.78</b> |
|        | SE               | -        | 0.46         | -      | -    | 0.61         | -              | -          | 0.26          | -               |              |
|        | CD               | -        | NS           | -      | -    | NS           | -              | -          | NS            | -               |              |
|        | CV               | -        | 5.82         | -      | -    | 5.35         | -              | -          | 3.27          | -               |              |

**Table 4.1.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean          |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|---------------|
| 1      | Co 15023         | 69.29        | 79.07        | 93.67        | 81.73        | 82.77        | 81.73          | 58.00        | 95.68         | 103.22          | <b>82.80</b>  |
| 2      | Co 15024         | 106.94       | 86.59        | 94.6         | 81.23        | 91.41        | 86.29          | 58.67        | 99.63         | 131.31          | <b>92.96</b>  |
| 3      | Co 15027         | 81.33        | 81.00        | 84.95        | 79.75        | 72.74        | 76.17          | 52.67        | 101.85        | 97.59           | <b>80.89</b>  |
| 4      | CoLk 15201       | 87.96        | 82.49        | 90.82        | 68.52        | 108.56       | 82.22          | 57.00        | 94.94         | 121.67          | <b>88.24</b>  |
| 5      | CoLk 15205       | 129.01       | 89.96        | 113.04       | 72.35        | 131.69       | 113.08         | 51.67        | 113.83        | 117.06          | <b>103.52</b> |
| 6      | CoPb 15212       | 93.52        | 92.49        | 85.80        | 77.04        | 116.43       | 108.27         | 49.33        | 102.35        | 94.40           | <b>91.07</b>  |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |               |
| 1      | CoJ 64           | 110.8        | 99.02        | 102.31       | 64.57        | 95.91        | 102.34         | 78.33        | 107.78        | 104.06          | <b>96.12</b>  |
| 2      | Co 0238          | 93.21        | 86.27        | 90.43        | 77.28        | 83.02        | 83.94          | 51.00        | 101.85        | 143.00          | <b>90.00</b>  |
| 3      | Co 05009         | 98.61        | 91.88        | 90.35        | 66.17        | 88.73        | 94.94          | 54.67        | 90.74         | 112.79          | <b>87.65</b>  |
|        | <b>GM</b>        | <b>98.58</b> | <b>87.64</b> | <b>94.00</b> | <b>74.29</b> | <b>96.81</b> | <b>92.11</b>   | <b>56.82</b> | <b>100.96</b> | <b>113.90</b>   | <b>90.38</b>  |
|        | SE               | 4.55         | 1.97         | 1.92         | 5.64         | 2.38         | 2.19           | 1.60         | 4.31          | 3.26            |               |
|        | CD               | 13.52        | 5.89         | 5.80         | 13.65        | 5.04         | 4.47           | 4.85         | 12.93         | 9.44            |               |
|        | CV               | 8.00         | 3.89         | 3.53         | 13.16        | 3.01         | 7.57           | 4.89         | 7.40          | 4.19            |               |

**Table 4.1.11. Stalk Length (cm) at harvest**

| S. No | Clone            | Faridkot      | Kapur thala   | Karnal        | Kota          | Lucknow       | Muzaffar nagar | Pant nagar    | Shahja hanpur | Srganaga nagar | Mean          |
|-------|------------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|
| 1     | Co 15023         | 210.00        | 225.00        | 248.00        | 205.00        | 193.00        | 186.00         | 248.00        | 260.00        | 240.00         | <b>223.82</b> |
| 2     | Co 15024         | 242.00        | 224.0         | 237.00        | 218.00        | 153.00        | 192.00         | 216.00        | 240.00        | 215.00         | <b>215.24</b> |
| 3     | Co 15027         | 243.00        | 238.00        | 235.00        | 232.00        | 182.00        | 230.00         | 218.00        | 245.00        | 211.00         | <b>225.94</b> |
| 4     | CoLk 15201       | 276.00        | 264.00        | 263.00        | 228.00        | 218.00        | 242.00         | 278.00        | 268.00        | 235.00         | <b>252.51</b> |
| 5     | CoLk 15205       | 247.00        | 241.00        | 262.00        | 182.00        | 176.00        | 165.00         | 173.00        | 269.00        | 213.00         | <b>214.19</b> |
| 6     | CoPb 15212       | 264.00        | 270.00        | 242.00        | 199.00        | 166.00        | 158.00         | 231.00        | 212.00        | 241.00         | <b>220.31</b> |
|       | <b>Standards</b> |               |               |               |               |               |                |               |               |                |               |
| 1     | CoJ 64           | 218.00        | 241.00        | 322.00        | 200.00        | 152.00        | 198.00         | 202.00        | 248.00        | 232.00         | <b>223.68</b> |
| 2     | Co 0238          | 226.00        | 266.00        | 253.00        | 202.00        | 186.00        | 234.00         | 220.00        | 264.00        | 210.00         | <b>229.06</b> |
| 3     | Co 05009         | 301.00        | 266.00        | 297.00        | 220.00        | 154.00        | 206.00         | 249.00        | 263.00        | 210.00         | <b>240.63</b> |
|       | <b>GM</b>        | <b>247.41</b> | <b>248.20</b> | <b>262.11</b> | <b>209.56</b> | <b>175.56</b> | <b>201.22</b>  | <b>226.11</b> | <b>252.22</b> | <b>223.00</b>  | <b>227.26</b> |
|       | SE               | 8.54          | 8.41          | -             | 0.10          | 0.06          | 0.10           | 0.02          | 8.84          | 0.03           |               |
|       | CD               | 25.38         | 25.19         | NS            | 24.00         | 13.00         | 21.00          | 7.00          | 26.50         | 10.00          |               |
|       | CV               | 5.94          | 5.87          | -             | 8.30          | 4.23          | 5.95           | 1.78          | 6.07          | 0.39           |               |

**Table 4.1.12. Stalk Diameter (cm) at harvest**

| S. No. | Clone            | Faridkot    | Kapur thala | Karnal      | Kota        | Lucknow     | Muzaffarnagar | Pantnagar   | Shahjahanpur | Sriganaganagar | Mean        |
|--------|------------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|--------------|----------------|-------------|
| 1      | Co 15023         | 2.72        | 2.33        | 2.44        | 3.00        | 2.75        | 2.48          | 2.67        | 2.38         | 2.47           | <b>2.58</b> |
| 2      | Co 15024         | 2.77        | 2.27        | 2.4         | 2.60        | 2.61        | 2.22          | 2.55        | 2.30         | 2.25           | <b>2.44</b> |
| 3      | Co 15027         | 3.23        | 2.63        | 2.87        | 3.33        | 3.18        | 2.82          | 3.23        | 2.59         | 2.52           | <b>2.93</b> |
| 4      | CoLk 15201       | 2.65        | 2.38        | 2.28        | 2.70        | 2.65        | 2.36          | 2.69        | 2.43         | 2.53           | <b>2.52</b> |
| 5      | CoLk 15205       | 2.09        | 2.46        | 1.69        | 2.30        | 2.13        | 1.94          | 1.93        | 2.03         | 2.33           | <b>2.10</b> |
| 6      | CoPb 15212       | 2.69        | 2.45        | 2.14        | 2.37        | 2.35        | 2.02          | 2.49        | 2.28         | 2.43           | <b>2.36</b> |
|        | <b>Standards</b> |             |             |             |             |             |               |             |              |                |             |
| 1      | CoJ 64           | 2.37        | 2.13        | 2.21        | 2.13        | 2.29        | 1.96          | 2.18        | 2.16         | 2.34           | <b>2.20</b> |
| 2      | Co 0238          | 2.79        | 2.47        | 2.32        | 2.90        | 2.66        | 2.42          | 2.58        | 2.55         | 2.34           | <b>2.56</b> |
| 3      | Co 05009         | 2.49        | 2.37        | 2.22        | 2.17        | 2.29        | 2.14          | 2.31        | 2.28         | 2.52           | <b>2.31</b> |
|        | <b>GM</b>        | <b>2.61</b> | <b>2.39</b> | <b>2.29</b> | <b>2.61</b> | <b>2.55</b> | <b>2.26</b>   | <b>2.51</b> | <b>2.33</b>  | <b>2.41</b>    | <b>2.44</b> |
|        | SE               | 0.06        | 0.09        | 0.11        | 0.10        | 0.09        | 0.10          | 0.08        | 0.03         | 0.20           |             |
|        | CD               | 0.18        | NS          | 0.33        | 0.23        | 0.20        | 0.21          | 0.23        | 0.10         | 0.57           |             |
|        | CV               | 3.94        | 6.65        | 8.2         | 6.33        | 4.44        | 5.37          | 5.16        | 2.59         | 2.34           |             |



**Table 4.1.13. Single Cane Weight (kg.) at harvest**

| S. No. | Clone            | Faridkot    | Kapur thala | Karnal      | Kota        | Lucknow     | Muzaffar nagar | Pant nagar  | Shahja hanpur | Srganaga nagar | Mean        |
|--------|------------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|----------------|-------------|
| 1      | Co 15023         | 1.06        | 1.10        | 1.45        | 1.12        | 1.10        | 1.03           | 1.78        | 0.98          | 1.06           | <b>1.19</b> |
| 2      | Co 15024         | 1.22        | 0.99        | 1.07        | 1.13        | 0.83        | 0.87           | 1.41        | 0.90          | 0.83           | <b>1.03</b> |
| 3      | Co 15027         | 1.69        | 1.37        | 1.73        | 1.26        | 1.17        | 1.47           | 2.06        | 0.99          | 1.26           | <b>1.44</b> |
| 4      | CoLk 15201       | 1.30        | 1.16        | 1.03        | 1.26        | 1.07        | 1.26           | 1.77        | 1.08          | 0.94           | <b>1.21</b> |
| 5      | CoLk 15205       | 0.77        | 0.82        | 0.69        | 1.18        | 0.73        | 0.62           | 0.83        | 0.89          | 1.11           | <b>0.85</b> |
| 6      | CoPb 15212       | 1.36        | 1.10        | 1.10        | 1.16        | 0.80        | 0.77           | 1.31        | 0.90          | 1.26           | <b>1.08</b> |
|        | <b>Standards</b> |             |             |             |             |             |                |             |               |                |             |
| 1      | CoJ 64           | 0.90        | 0.88        | 0.81        | 1.20        | 0.75        | 0.69           | 0.95        | 0.80          | 1.10           | <b>0.90</b> |
| 2      | Co 0238          | 1.18        | 1.22        | 1.22        | 1.10        | 1.00        | 1.18           | 1.55        | 1.05          | 0.84           | <b>1.15</b> |
| 3      | Co 05009         | 1.31        | 0.99        | 1.21        | 1.23        | 0.68        | 0.81           | 1.45        | 0.93          | 1.07           | <b>1.08</b> |
|        | <b>GM</b>        | <b>1.20</b> | <b>1.07</b> | <b>1.15</b> | <b>1.18</b> | <b>0.90</b> | <b>0.97</b>    | <b>1.46</b> | <b>0.95</b>   | <b>1.05</b>    | <b>1.10</b> |
|        | SE               | 0.06        | 0.05        | 0.08        | 0.05        | 0.04        | 0.05           | 0.04        | 0.04          | 0.04           |             |
|        | CD               | 0.17        | 0.16        | 0.24        | 0.11        | 0.09        | 0.11           | 0.11        | 0.11          | 0.12           |             |
|        | CV               | 8.17        | 8.46        | 11.83       | 6.90        | 5.89        | 6.88           | 4.34        | 6.87          | 5.53           |             |

**Table 4.1.14. CCS (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | Co 15023         | 12.95        | 12.36        | 14.22        | 10.80        | 10.81        | 12.11          | 12.11        | 12.22         | 9.28            | <b>11.87</b> |
| 2      | Co 15024         | 9.91         | 11.18        | 12.33        | 10.59        | 9.50         | 11.35          | 11.22        | 10.01         | 9.58            | <b>10.63</b> |
| 3      | Co 15027         | 9.37         | 10.91        | 11.79        | 12.02        | 9.49         | 11.62          | 11.02        | 9.89          | 9.68            | <b>10.64</b> |
| 4      | CoLk 15201       | 10.79        | 10.51        | 11.78        | 10.63        | 10.17        | 11.23          | 10.36        | 10.04         | 9.41            | <b>10.55</b> |
| 5      | CoLk 15205       | 10.83        | 11.51        | 13.17        | 10.68        | 10.48        | 10.97          | 11.39        | 11.09         | 9.7             | <b>11.09</b> |
| 6      | CoPb 15212       | 10.72        | 10.90        | 11.79        | 10.75        | 9.43         | 11.76          | 11.40        | 10.26         | 9.67            | <b>10.74</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 11.99        | 11.77        | 12.65        | 10.70        | 10.62        | 12.39          | 11.64        | 10.91         | 10.19           | <b>11.43</b> |
| 2      | Co 0238          | 10.94        | 9.60         | 12.42        | 11.21        | 10.34        | 12.18          | 11.39        | 10.89         | 9.89            | <b>10.98</b> |
| 3      | Co 05009         | 10.33        | 11.18        | 12.15        | 11.01        | 10.19        | 11.74          | 11.29        | 11.42         | 9.79            | <b>11.01</b> |
|        | <b>GM</b>        | <b>10.89</b> | <b>11.10</b> | <b>12.48</b> | <b>10.93</b> | <b>10.11</b> | <b>11.71</b>   | <b>11.31</b> | <b>10.75</b>  | <b>9.69</b>     | <b>10.99</b> |
|        | SE               | 0.08         | 1.19         | 0.21         | 0.11         | 0.51         | 0.26           | 0.17         | 0.15          | 0.32            |              |
|        | CD               | 0.23         | 1.11         | 0.62         | 0.28         | NS           | 0.55           | 0.51         | 0.46          | 0.93            |              |
|        | CV               | 1.22         | 5.77         | 2.87         | 1.82         | 6.18         | 2.70           | 2.59         | 2.47          | 4.67            |              |

**Table 4.1.15. Sucrose (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | Co 15023         | 18.47        | 17.88        | 20.29        | 15.84        | 16.10        | 17.71          | 17.88        | 17.83         | 13.91           | <b>17.32</b> |
| 2      | Co 15024         | 14.33        | 16.17        | 17.81        | 15.55        | 14.25        | 16.58          | 16.55        | 14.85         | 14.14           | <b>15.58</b> |
| 3      | Co 15027         | 13.78        | 15.81        | 17.01        | 17.49        | 14.25        | 17.05          | 16.38        | 14.68         | 14.70           | <b>15.68</b> |
| 4      | CoLk 15201       | 15.55        | 15.27        | 16.86        | 15.60        | 15.30        | 16.48          | 15.35        | 14.90         | 14.10           | <b>15.49</b> |
| 5      | CoLk 15205       | 15.74        | 16.64        | 18.95        | 15.67        | 15.62        | 16.09          | 16.85        | 16.30         | 14.27           | <b>16.24</b> |
| 6      | CoPb 15212       | 15.39        | 15.80        | 17.04        | 15.77        | 14.19        | 17.20          | 16.85        | 15.18         | 14.47           | <b>15.77</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 17.16        | 16.84        | 18.15        | 15.70        | 15.74        | 18.05          | 17.15        | 16.06         | 15.03           | <b>16.65</b> |
| 2      | Co 0238          | 15.84        | 14.29        | 17.91        | 16.39        | 15.43        | 17.76          | 16.84        | 16.05         | 14.39           | <b>16.10</b> |
| 3      | Co 05009         | 14.87        | 16.03        | 17.39        | 16.11        | 15.11        | 17.09          | 16.69        | 16.73         | 14.89           | <b>16.10</b> |
|        | <b>GM</b>        | <b>15.69</b> | <b>16.08</b> | <b>17.93</b> | <b>16.01</b> | <b>15.11</b> | <b>17.11</b>   | <b>16.73</b> | <b>15.84</b>  | <b>14.43</b>    | <b>16.10</b> |
|        | SE               | 0.17         | 0.24         | 0.24         | 0.16         | 0.63         | 0.37           | 0.22         | 0.19          | 0.30            |              |
|        | CD               | 0.51         | 1.48         | 0.74         | 0.38         | 1.35         | 0.80           | 0.68         | 0.58          | 0.87            |              |
|        | CV               | 1.89         | 5.31         | 2.36         | 1.68         | 5.14         | 2.69           | 2.32         | 2.10          | 2.77            |              |

**Table 4.1.16. Brix (%) at 240 days**

| S. No | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|-------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1     | Co 15023         | 20.30        | 20.27        | 22.29        | 18.43        | 19.34        | 20.50          | 21.10        | 20.58         | 16.91           | <b>19.97</b> |
| 2     | Co 15024         | 16.20        | 18.30        | 20.1         | 18.16        | 17.34        | 19.14          | 19.50        | 17.71         | 16.69           | <b>18.13</b> |
| 3     | Co 15027         | 16.13        | 17.97        | 19.15        | 20.03        | 17.39        | 19.87          | 19.60        | 17.51         | 18.29           | <b>18.44</b> |
| 4     | CoLk 15201       | 17.47        | 17.47        | 18.68        | 18.20        | 18.74        | 19.20          | 18.23        | 17.75         | 17.11           | <b>18.09</b> |
| 5     | CoLk 15205       | 18.00        | 18.80        | 21.22        | 18.27        | 18.80        | 18.74          | 19.97        | 19.08         | 16.74           | <b>18.85</b> |
| 6     | CoPb 15212       | 17.17        | 18.00        | 19.25        | 18.37        | 17.36        | 19.94          | 19.93        | 18.00         | 17.53           | <b>18.39</b> |
|       | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1     | CoJ 64           | 19.00        | 18.63        | 20.21        | 18.30        | 18.72        | 20.77          | 20.17        | 18.84         | 17.71           | <b>19.15</b> |
| 2     | Co 0238          | 17.97        | 17.13        | 20.16        | 18.97        | 18.59        | 20.44          | 19.93        | 18.88         | 16.49           | <b>18.73</b> |
| 3     | Co 05009         | 16.67        | 17.83        | 19.25        | 18.70        | 17.99        | 19.64          | 19.77        | 19.43         | 18.58           | <b>18.65</b> |
|       | <b>GM</b>        | <b>17.65</b> | <b>18.27</b> | <b>20.04</b> | <b>18.60</b> | <b>18.25</b> | <b>19.80</b>   | <b>19.80</b> | <b>18.64</b>  | <b>17.34</b>    | <b>18.71</b> |
|       | SE               | 0.22         | 0.36         | 0.2          | 0.15         | 0.51         | 0.46           | 0.22         | 0.15          | 0.49            |              |
|       | CD               | 0.64         | 1.57         | 0.59         | 0.36         | 1.09         | 0.97           | 0.68         | 0.46          | 1.41            |              |
|       | CV               | 2.12         | 4.78         | 1.7          | 1.40         | 3.45         | 2.83           | 1.96         | 1.41          | 3.63            |              |

**Table 4.1.17. Purity (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | Co 15023         | 90.97        | 88.36        | 91.00        | 85.92        | 83.12        | 86.40          | 84.75        | 86.64         | 82.26           | <b>86.60</b> |
| 2      | Co 15024         | 88.45        | 88.30        | 88.61        | 85.66        | 82.14        | 86.62          | 84.86        | 83.87         | 84.72           | <b>85.91</b> |
| 3      | Co 15027         | 85.41        | 88.01        | 88.83        | 87.29        | 81.97        | 85.82          | 83.58        | 83.83         | 80.38           | <b>85.01</b> |
| 4      | CoLk 15201       | 89.05        | 87.43        | 90.28        | 85.70        | 79.96        | 86.60          | 84.16        | 83.90         | 82.41           | <b>85.50</b> |
| 5      | CoLk 15205       | 87.46        | 88.50        | 89.27        | 85.76        | 83.11        | 85.86          | 84.37        | 85.42         | 85.26           | <b>86.11</b> |
| 6      | CoPb 15212       | 89.67        | 87.78        | 88.47        | 85.86        | 81.70        | 86.26          | 84.54        | 84.34         | 82.54           | <b>85.68</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 90.32        | 90.39        | 89.8         | 85.79        | 84.09        | 86.92          | 85.02        | 85.22         | 84.85           | <b>86.93</b> |
| 2      | Co 0238          | 88.15        | 83.38        | 88.87        | 86.40        | 83.00        | 86.90          | 84.46        | 85.03         | 87.27           | <b>85.94</b> |
| 3      | Co 05009         | 89.21        | 89.87        | 90.3         | 86.17        | 83.98        | 87.05          | 84.43        | 86.07         | 80.14           | <b>86.36</b> |
|        | <b>GM</b>        | <b>88.88</b> | <b>88.00</b> | <b>89.49</b> | <b>86.06</b> | <b>82.56</b> | <b>86.49</b>   | <b>84.46</b> | <b>84.92</b>  | <b>83.31</b>    | <b>86.01</b> |
|        | SE               | 0.41         | 1.39         | -            | 0.14         | 1.27         | 0.70           | 0.44         | 0.40          | 2.36            |              |
|        | CD               | 1.22         | 3.04         | NS           | 0.34         | NS           | NS             | NS           | 1.19          | 6.85            |              |
|        | CV               | 0.8          | 1.99         | -            | 0.28         | 1.88         | 0.99           | 0.90         | 0.81          | 3.93            |              |

**Table 4.1.18. Number of Shoots ('000/ha) at 240 days**

| S. No. | Clone            | Faridkot      | Kapurthala   | Karnal       | Kota         | Lucknow       | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Mean          |
|--------|------------------|---------------|--------------|--------------|--------------|---------------|----------------|------------|---------------|-----------------|---------------|
| 1      | Co 15023         | 77.31         | 83.20        | 93.67        | 88.15        | 86.50         | -              | -          | -             | -               | <b>85.77</b>  |
| 2      | Co 15024         | 114.66        | 91.12        | 94.60        | 87.53        | 95.99         | -              | -          | -             | -               | <b>96.78</b>  |
| 3      | Co 15027         | 91.05         | 85.24        | 84.95        | 84.81        | 77.62         | -              | -          | -             | -               | <b>84.73</b>  |
| 4      | CoLk 15201       | 94.44         | 86.81        | 90.82        | 74.81        | 112.65        | -              | -          | -             | -               | <b>91.91</b>  |
| 5      | CoLk 15205       | 143.36        | 95.33        | 113.04       | 77.28        | 134.57        | -              | -          | -             | -               | <b>112.72</b> |
| 6      | CoPb 15212       | 96.60         | 97.00        | 85.80        | 81.11        | 121.06        | -              | -          | -             | -               | <b>96.31</b>  |
|        | <b>Standards</b> |               |              |              |              |               |                |            |               |                 |               |
| 1      | CoJ 64           | 114.04        | 104.20       | 102.31       | 68.89        | 100.69        | -              | -          | -             | -               | <b>98.03</b>  |
| 2      | Co 0238          | 100.62        | 90.78        | 90.43        | 82.22        | 87.35         | -              | -          | -             | -               | <b>90.28</b>  |
| 3      | Co 05009         | 102.62        | 96.69        | 90.35        | 73.09        | 90.28         | -              | -          | -             | -               | <b>90.61</b>  |
|        | <b>GM</b>        | <b>105.52</b> | <b>92.26</b> | <b>94.00</b> | <b>79.77</b> | <b>100.75</b> | -              | -          | -             | -               | <b>94.13</b>  |
|        | SE               | 5.38          | 2.07         | 1.92         | 5.90         | 2.16          | -              | -          | -             | -               |               |
|        | CD               | 15.98         | 6.20         | 5.80         | 14.28        | 4.59          | -              | -          | -             | -               |               |
|        | CV               | 8.83          | 3.89         | 3.53         | 12.82        | 2.63          | -              | -          | -             | -               |               |

**Table 4.1.19. Number of Tillers ('000/ha) at 120 days**

| S. No. | Clone            | Faridkot      | Kapur thala  | Karnal        | Kota         | Lucknow       | Muzaffar nagar | Pant nagar   | Shahjahanpur  | Sriganganagar | Mean          |
|--------|------------------|---------------|--------------|---------------|--------------|---------------|----------------|--------------|---------------|---------------|---------------|
| 1      | Co 15023         | 102.62        | 89.23        | 163.35        | 100.25       | 92.67         | 178.15         | 79.33        | 178.40        | 131.09        | <b>123.90</b> |
| 2      | Co 15024         | 129.01        | 97.72        | 149.23        | 98.40        | 98.84         | 184.44         | 89.33        | 172.47        | 166.77        | <b>131.80</b> |
| 3      | Co 15027         | 119.91        | 91.42        | 124.00        | 96.05        | 80.71         | 181.61         | 70.00        | 180.12        | 123.94        | <b>118.64</b> |
| 4      | CoLk 15201       | 119.14        | 93.10        | 124.77        | 86.79        | 116.59        | 156.42         | 67.33        | 171.73        | 154.52        | <b>121.15</b> |
| 5      | CoLk 15205       | 151.54        | 100.19       | 148.46        | 88.02        | 137.04        | 173.58         | 79.67        | 206.54        | 148.66        | <b>137.08</b> |
| 6      | CoPb 15212       | 103.70        | 105.05       | 104.55        | 91.36        | 126.23        | 196.04         | 71.33        | 194.81        | 119.89        | <b>123.66</b> |
|        | <b>Standards</b> |               |              |               |              |               |                |              |               |               |               |
| 1      | CoJ 64           | 120.22        | 111.75       | 150.93        | 80.25        | 103.86        | 189.75         | 111.00       | 204.44        | 132.16        | <b>133.82</b> |
| 2      | Co 0238          | 124.69        | 97.36        | 128.01        | 91.60        | 90.51         | 152.83         | 64.00        | 182.47        | 181.62        | <b>123.68</b> |
| 3      | Co 05009         | 118.06        | 103.70       | 139.12        | 82.47        | 94.06         | 169.87         | 91.00        | 164.20        | 143.24        | <b>122.86</b> |
|        | <b>GM</b>        | <b>121.94</b> | <b>98.84</b> | <b>136.93</b> | <b>90.58</b> | <b>104.50</b> | <b>175.86</b>  | <b>80.33</b> | <b>183.91</b> | <b>144.65</b> | <b>126.39</b> |
|        | SE               | 8.79          | 2.30         | 6.4           | 5.62         | 2.55          | 4.66           | 1.91         | 5.52          | 3.92          |               |
|        | CD               | 26.12         | 6.90         | 19.34         | 13.6         | 5.40          | 9.87           | 5.79         | 16.53         | 11.70         |               |
|        | CV               | 12.49         | 4.03         | 8.09          | 10.75        | 2.98          | 8.76           | 4.13         | 5.19          | 14.37         |               |

**Table 4.1.20. Germination (%) at 45 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | Co 15023         | 36.52        | 42.39        | 85.36        | 43.06        | 34.85        | 39.72          | 36.00        | 45.74         | 43.19           | <b>45.20</b> |
| 2      | Co 15024         | 32.06        | 55.10        | 66.84        | 45.74        | 33.48        | 38.61          | 32.81        | 41.39         | 44.06           | <b>43.34</b> |
| 3      | Co 15027         | 31.38        | 54.12        | 66.67        | 41.11        | 31.25        | 41.02          | 32.81        | 42.69         | 41.18           | <b>42.47</b> |
| 4      | CoLk 15201       | 36.78        | 53.94        | 62.5         | 47.69        | 37.93        | 34.35          | 37.04        | 43.70         | 42.43           | <b>44.04</b> |
| 5      | CoLk 15205       | 32.92        | 57.98        | 68.75        | 47.5         | 41.83        | 37.50          | 30.33        | 52.59         | 45.55           | <b>46.11</b> |
| 6      | CoPb 15212       | 33.95        | 49.83        | 52.78        | 49.54        | 39.52        | 49.63          | 33.22        | 49.07         | 42.56           | <b>44.46</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 35.32        | 53.15        | 64.12        | 43.52        | 40.45        | 38.79          | 34.43        | 47.22         | 43.10           | <b>44.46</b> |
| 2      | Co 0238          | 39.87        | 50.93        | 65.39        | 45.37        | 33.56        | 32.03          | 33.57        | 47.50         | 41.92           | <b>43.35</b> |
| 3      | Co 05009         | 36.01        | 52.76        | 64.18        | 42.5         | 31.16        | 35.46          | 33.16        | 40.00         | 42.23           | <b>41.94</b> |
|        | <b>GM</b>        | <b>34.87</b> | <b>52.24</b> | <b>66.29</b> | <b>45.11</b> | <b>36.00</b> | <b>38.57</b>   | <b>33.71</b> | <b>45.55</b>  | <b>42.91</b>    | <b>43.93</b> |
|        | SE               | 1.40         | 2.32         | 2.27         | 2.65         | 1.60         | 0.83           | 1.09         | 1.35          | 1.02            |              |
|        | CD               | 4.15         | 6.96         | 6.86         | 6.42         | 3.39         | 1.75           | 3.29         | 4.05          | 2.89            |              |
|        | CV               | 6.93         | 7.70         | 5.93         | 10.19        | 5.44         | 9.46           | 5.59         | 5.14          | 3.53            |              |



**Table 4.1.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S. No | Genotype   | Lucknow | Shahjahanpur | Pantnagar | Muzzaifarnagar | Karnal | Uchani | Kapurthala | Faridkot | Sriganganagar | Kota   |
|-------|------------|---------|--------------|-----------|----------------|--------|--------|------------|----------|---------------|--------|
| 1     | Co15023    | On par  | On par       | On par    | Better         | On par | NA     | On par     | Poor     | Better        | Better |
| 2     | Co 15024   | Poor    | Poor         | Poor      | On par         | poor   | NA     | Poor       | On Par   | On par        | On par |
| 3     | Co 15027   | Poor    | On par       | Better    | Better         | Better | NA     | Better     | On par   | Better        | Better |
| 4     | CoLk 15201 | On par  | Better       | On par    | Better         | Better | NA     | Better     | On par   | On par        | On par |
| 5     | CoLk 15205 | Better  | On par       | Poor      | On par         | Poor   | NA     | On par     | Poor     | Poor          | Better |
| 6     | CoPb 15212 | On par  | On par       | Poor      | On par         | On par | NA     | On par     | On par   | On par        | On par |
|       | Standards  |         |              |           |                |        |        |            |          |               |        |
| 1     | CoJ 64     | II      | II           | III       | III            | III    | NA     | III        | III      | III           | III    |
| 2     | Co 0238    | Best    | Best         | Best      | Best           | Best   | NA     | Best       | II       | Best          | Best   |
| 3     | Co 05009   | III     | III          | II        | II             | II     | NA     | II         | Best     | II            | II     |

NA= Not allotted

#### 4.2 ADVANCED VARIETAL TRIAL (EARLY) – RATOON

|               |   |
|---------------|---|
| Centres (9)   | Faridkot, Kapurthala, Karnal, Kota, Lucknow, Muzaffarnagar, Pantnagar, Shahjahanpur and Sriganaganagar. |
| Entries (6)   | Co 15023, Co 15024, Co 15027, CoLk 15201, CoLk 15205 and CoPb 15212                                     |
| Standards (3) | CoJ 64, Co 0238 and Co 05009  |
| Design        | RBD   |
| Replications  | Three   |
| Plot size     | Gross : 8 Rows x 6 m x 0.9 m<br>Net : 6 Rows x 5 m x 0.9 m  |
| Crop duration | 9 months  |

##### Results of the previous year:

In the AVT (Early) I Plant trial, Co 0238 was the best among the standards for CCS yield with zonal mean of 13.34 t/ha. No test entry recorded higher CCS yield than Co 0238 although Co 15027 (13.29 t/ha) and CoLk 15201 (13.03 t/ha) ranked second and third positions, respectively in the zone for CCS yield. For cane yield, Co 0238 was the best among standards with a zonal mean of 106.93 t/ha. The test entry Co 15027 (109.93 t/ha) alone recorded numerically higher cane yield than Co 0238, but the per cent improvement over the best standard for cane yield was <10.0 %. For juice quality, CoJ 64 was the best among the standards with 12.56 % CCS and 18.13 % sucrose at harvest. Among the test entries, Co 15023 ranked first for CCS % at harvest (13.38) and sucrose % (19.28). Co 15023 was the only test entry in the zone that recorded >5 per cent improvement for CCS % and sucrose % over the best standard.

##### Results of the current year:

Six test entries and three standards (CoJ 64, Co 0238, Co 05009) were evaluated in RBD design with three replications in nine locations across the North West Zone are presented in tables 4.2.1 to 4.2.15.

At Pantnagar, cane yield was lower than the state average yield hence not included for calculating mean in the trial. Data of Co 15024 at Lucknow centre could not be recorded due to poor sprouting in ratoon crop. Co 0238 was the best standard for CCS yield and cane yield with 10.52 t/ha and 83.20 t/ha respectively. Co 15027 (10.91 t/ha) ranked first and recorded >10 per cent improvement for CCS yield (t/ha) at Kota and Muzaffarnagar over best standard. Co 15027 (91.46 t/ha) was the top yielder in the zone and recorded 9.93 per cent improvement as well as 10 per cent improvement over the best standards at Karnal, Kota and Lucknow and Faridkot. CoJ 64 was the best standard for CCS % and sucrose % with 12.72 and 18.17 respectively in the zone and Co 15023 (12.99 %) ranked first for CCS % and numerically superior over the best standard CoJ 64 across locations. Co 15023 (18.61 %) top ranked entry for juice sucrose % and recorded 2.42 % improvement over best standard CoJ 64 across the locations. None of the entries recorded >5% improvement over the best standard CoJ 64 for both CCS % and sucrose % across locations.

##### Qualifying entries:

Compared to the best standard Co 0238, none of the entry was identified as qualifying entry.

Table 4.2.1. CCS at harvest (t/ha)

| S. No.                              | Clone      | Faridkot    | Kapur thala | Karnal       | Kota         | Lucknow     | Muzaffar nagar | Pant nagar  | Shahja hanpur | Srganag anagar | Mean  | Overall rank |
|-------------------------------------|------------|-------------|-------------|--------------|--------------|-------------|----------------|-------------|---------------|----------------|-------|--------------|
| 1                                   | Co 15023   | 6.26        | 8.73        | 18.75        | 10.25        | 7.78        | 6.67           | 4.73        | 6.63          | 8.07           | 9.14  |              |
| 2                                   | Co 15024   | 6.93        | 9.05        | 12.76        | 11.01        | -           | 5.12           | 4.20        | 4.73          | 8.94           | 8.36  |              |
| 3                                   | Co 15027   | 9.72        | 9.98        | 18.13        | 11.40        | 9.02        | 9.57*          | 9.18*       | 8.72          | 10.74          | 10.91 | 1            |
| 4                                   | CoLk 15201 | 7.77        | 9.28        | 15.20        | 11.44        | 11.04*      | 8.63           | 9.15*       | 10.93         | 9.34           | 10.45 | 3            |
| 5                                   | CoLk 15205 | 9.46        | 7.37        | 13.70        | 9.74         | 9.53        | 8.65           | 7.35        | 10.67         | 7.17           | 9.54  |              |
| 6                                   | CoPb 15212 | 10.60       | 10.36       | 12.68        | 9.52         | 7.39        | 8.99*          | 7.56        | 8.90          | 8.14           | 9.57  |              |
| <b>Standards</b>                    |            |             |             |              |              |             |                |             |               |                |       |              |
| 1                                   | CoL 64     | 7.93        | 9.96        | 13.87        | 9.21         | 8.26        | 7.38           | 6.11        | 9.09          | 7.50           | 9.15  |              |
| 2                                   | Co 0238    | 8.91        | 10.19       | 16.89        | 9.75         | 7.99        | 8.29           | 6.18        | 11.30         | 10.87          | 10.52 | 2            |
| 3                                   | Co 05009   | 9.86        | 9.44        | 15.54        | 8.64         | 5.90        | 8.03           | 6.86        | 7.50          | 9.56           | 9.31  |              |
|                                     | <b>GM</b>  | <b>8.61</b> | <b>9.37</b> | <b>15.28</b> | <b>10.11</b> | <b>8.36</b> | <b>7.93</b>    | <b>6.81</b> | <b>8.72</b>   | <b>8.93</b>    |       |              |
|                                     | SE         | 0.69        | 0.45        | 0.64         | 0.73         | 0.64        | 0.20           | 0.38        | 0.30          | 0.52           |       |              |
|                                     | CD         | 2.08        | 1.36        | 1.93         | 1.77         | 1.37        | 0.43           | 1.16        | 0.90          | 1.56           |       |              |
|                                     | CV         | 13.97       | 8.40        | 7.24         | 12.56        | 9.35        | 8.43           | 9.73        | 5.96          | 2.54           |       |              |
| Qualifying entries at each location |            |             |             |              |              |             |                |             |               |                |       |              |
| 1                                   |            | -           | -           | Co 15023     | CoLk 15201   | CoLk 15201  | Co 15027       | Co 15027    | -             | -              | -     |              |
| 2                                   |            | -           | -           | -            | Co 15027     | CoLk 15205  | -              | CoLk 15201  | -             | -              | -     |              |
| 3                                   |            | -           | -           | -            | Co 15024     | -           | -              | CoPb 15212  | -             | -              | -     |              |

**No. of locations where an entry recorded >10% improvement:** Co 15027 (3), CoLk 15201 (3), Co 15023 (1), Co 15024 (1), CoLk 15205 (1) and CoPb 15212 (1)

**Performance across the locations:**

Co 0238 (10.52 t/ha) was the best standard for commercial cane sugar yield. Co 15027 (10.91 t/ha) ranked first in the zone and recorded > 10 per cent improvement in CCS yield at Kota and Muzaffarnagar over best standard. CoLk 15201 (10.45 t/ha) ranked second and >10 per cent improvement over the best standard at Lucknow and Kota. None of the entries recorded more than 10 per cent improvement over the best standard Co 0238 for CCS (t/ha) across locations.

Table 4.2.2. Cane Yield at harvest (t/ha)

| S. No. | Clone                               | Faridkot     | Kapur thala  | Karnal        | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean     | Overall rank |
|--------|-------------------------------------|--------------|--------------|---------------|--------------|--------------|----------------|--------------|---------------|-----------------|----------|--------------|
| 1      | Co 15023                            | 44.44        | 69.37        | 133.16        | 85.08        | 63.66        | 50.49          | 37.75        | 48.15         | 68.40           | 70.34    |              |
| 2      | Co 15024                            | 56.48        | 79.03        | 101.84        | 90.87        | -            | 41.73          | 34.65        | 38.52         | 80.42           | 69.84    |              |
| 3      | Co 15027                            | 90.43        | 87.45        | 139.92*       | 92.47        | 80.85*       | 76.67          | 73.51*       | 75.43         | 88.48*          | 91.46    | 1            |
| 4      | CoLk 15201                          | 64.20        | 75.43        | 127.39        | 97.25*       | 91.79*       | 69.51          | 79.27*       | 87.78         | 78.33           | 86.46    | 2            |
| 5      | CoLk 15205                          | 70.37        | 58.42        | 105.38        | 81.47        | 82.19*       | 68.64          | 57.88        | 79.51         | 58.66           | 75.58    |              |
| 6      | CoPb 15212                          | 86.11        | 86.28        | 107.21        | 79.58        | 69.88        | 64.93          | 60.87        | 75.80         | 66.53           | 79.54    |              |
|        | <b>Standards</b>                    |              |              |               |              |              |                |              |               |                 |          |              |
| 1      | CoJ 64                              | 60.19        | 77.39        | 102.14        | 81.47        | 68.73        | 55.80          | 48.72        | 72.72         | 57.17           | 71.95    |              |
| 2      | Co 0238                             | 68.83        | 83.68        | 124.24        | 81.54        | 69.61        | 70.74          | 49.01        | 85.80         | 81.16           | 83.20    | 3            |
| 3      | Co 05009                            | 79.63        | 77.26        | 119.62        | 77.22        | 50.70        | 61.48          | 55.15        | 59.14         | 76.51           | 75.20    |              |
|        | <b>GM</b>                           | <b>68.96</b> | <b>77.15</b> | <b>117.88</b> | <b>85.22</b> | <b>72.18</b> | <b>62.22</b>   | <b>55.20</b> | <b>69.21</b>  | <b>72.85</b>    |          |              |
|        | SE                                  | 5.42         | 3.05         | 6.70          | 5.94         | 4.01         | 2.11           | 2.78         | 1.76          | 1.84            |          |              |
|        | CD                                  | 16.25        | 9.13         | 14.32         | 14.37        | 8.60         | 4.46           | 8.40         | 5.26          | 5.52            |          |              |
|        | CV                                  | 13.61        | 6.84         | 6.96          | 12.07        | 6.81         | 11.19          | 8.71         | 4.39          | 9.06            |          |              |
|        | Qualifying entries at each location |              |              |               |              |              |                |              |               |                 |          |              |
| 1      | Co 15027                            | -            | -            | Co 15027      | CoLk 15201   | CoLk 15201   | -              | CoLk 15201   | -             | -               | Co 15027 |              |
| 2      | -                                   | -            | -            | -             | Co 15027     | CoLk 15205   | -              | Co 15027     | -             | -               | -        |              |
| 3      | -                                   | -            | -            | -             | Co 15024     | Co 15027     | -              | CoPb 15212   | -             | -               | -        |              |

**No. of locations where an entry recorded >10% improvement:** Co 15027 (4), CoLk 15201 (3), Co 15023 (2), Co 15024 (1), CoLk 15205 (1) and CoPb 15212 (1).

**Performance across the locations:**

Co 0238 (83.20 t/ha) was the best standard for cane yield in the zone. Co 15027 (91.46 t/ha) was the top yielding in the zone and recorded >10 per cent improvement over the best standards at Karnal, Kota, Lucknow, and Faridkot. CoLk 15201 (86.46 t/ha) ranked second among the entries with 10 per cent improvement and significantly superior over the best standard Co 0238 at both Kota and Lucknow. The entry Co 15027 recorded 9.93 per cent improvement over the best standard Co 0238 for cane yield (t/ha) across locations.

**Table 4.2.3. CCS (%) at harvest**

| S. No. | Clone                               | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         | Overall rank |
|--------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15023                            | 14.10*       | 12.61        | 14.09        | 12.07        | 12.23        | 13.22          | 12.55        | 13.76         | 11.80           | <b>12.99</b> | <b>1</b>     |
| 2      | Co 15024                            | 12.27        | 11.45        | 12.54        | 12.12        | -            | 12.26          | 12.16        | 12.29         | 11.12           | <b>12.01</b> |              |
| 3      | Co 15027                            | 10.72        | 11.42        | 12.96        | 12.30        | 11.16        | 12.48          | 12.49        | 11.57         | 12.13           | <b>11.84</b> |              |
| 4      | CoLk 15201                          | 12.13        | 12.29        | 11.90        | 11.74        | 12.05        | 12.43          | 11.54        | 12.45         | 11.92           | <b>12.11</b> |              |
| 5      | CoLk 15205                          | 13.45        | 12.61        | 12.98        | 11.95        | 11.57        | 12.63          | 12.68        | 13.41         | 12.23           | <b>12.60</b> |              |
| 6      | CoPb 15212                          | 12.30        | 12.01        | 11.82        | 11.97        | 10.60        | 12.89          | 12.42        | 11.74         | 12.15           | <b>11.94</b> |              |
|        | <b>Standards</b>                    |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64                              | 13.18        | 12.85        | 13.59        | 11.29        | 12.02        | 13.23          | 12.53        | 12.50         | 13.12           | <b>12.72</b> | <b>2</b>     |
| 2      | Co 0238                             | 12.92        | 12.17        | 13.60        | 11.95        | 11.46        | 12.91          | 12.61        | 13.16         | 13.40           | <b>12.70</b> | <b>3</b>     |
| 3      | Co 05009                            | 12.39        | 12.23        | 12.99        | 11.24        | 11.59        | 12.21          | 12.41        | 12.68         | 12.49           | <b>12.23</b> |              |
|        | <b>GM</b>                           | <b>12.61</b> | <b>12.18</b> | <b>12.94</b> | <b>11.85</b> | <b>11.58</b> | <b>12.70</b>   | <b>12.38</b> | <b>12.62</b>  | <b>12.26</b>    |              |              |
|        | SE                                  | 0.16         | 0.20         | 0.17         | 0.17         | 0.52         | 0.21           | 0.23         | 0.22          | 0.31            |              |              |
|        | CD                                  | 0.47         | 0.62         | 0.50         | 0.42         | NS           | 0.45           | NS           | 0.67          | 0.93            |              |              |
|        | CV                                  | 2.15         | 2.97         | 2.22         | 2.51         | 5.49         | 2.07           | 3.25         | 3.06          | 5.33            |              |              |
|        | Qualifying entries at each location |              |              |              |              |              |                |              |               |                 |              |              |
| 1      |                                     | Co 15023     | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |
| 2      |                                     | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |
| 3      |                                     | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |

**No. of locations where an entry recorded >5% improvement: Co 15023 (1).**

**Performance across the locations:**

CoJ 64 (12.72) was the best standard for CCS % in the zone. Co 15023 (12.99 %) ranked first and was 2.12 % superior over the best standard CoJ 64 across locations, and recorded more than 5% improvement and also significantly superior over the best standard at Faridkot (CoJ 64). None of the entries recorded >5% improvement over the best standard CoJ 64 for CCS % across locations.

**Table 4.2.4. Sucrose (%) at harvest**

| S. No. | Clone                               | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean  | Overall rank |
|--------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|-------|--------------|
| 1      | Co 15023                            | 19.84*       | 17.85        | 20.09*       | 17.56        | 17.58        | 19.11          | 18.21        | 19.81         | 17.06           | 18.61 | 1            |
| 2      | Co 15024                            | 17.46        | 16.35        | 18.02        | 17.63        | -            | 18.04          | 17.63        | 17.75         | 16.30           | 17.36 |              |
| 3      | Co 15027                            | 15.21        | 16.28        | 18.49        | 17.87        | 16.01        | 18.19          | 18.08        | 16.78         | 17.59           | 17.05 |              |
| 4      | CoLk 15201                          | 17.27        | 17.60        | 17.30        | 17.11        | 17.23        | 18.06          | 16.85        | 17.97         | 17.25           | 17.47 |              |
| 5      | CoLk 15205                          | 19.13        | 18.08        | 18.67        | 17.38        | 16.66        | 18.35          | 18.37        | 19.32         | 17.78           | 18.17 | 2            |
| 6      | CoPb 15212                          | 17.43        | 17.11        | 17.10        | 17.42        | 15.26        | 18.74          | 18.00        | 17.01         | 17.55           | 17.20 |              |
|        | <b>Standards</b>                    |              |              |              |              |              |                |              |               |                 |       |              |
| 1      | CoJ 64                              | 18.65        | 18.27        | 19.29        | 16.49        | 17.24        | 19.09          | 18.15        | 18.04         | 18.30           | 18.17 | 2            |
| 2      | Co 0238                             | 18.29        | 17.33        | 19.29        | 17.38        | 16.69        | 18.74          | 18.17        | 18.92         | 18.41           | 18.13 | 3            |
| 3      | Co 05009                            | 17.55        | 17.45        | 18.42        | 16.42        | 16.59        | 17.72          | 18.00        | 18.30         | 17.45           | 17.49 |              |
|        | <b>GM</b>                           | <b>17.87</b> | <b>17.37</b> | <b>18.52</b> | <b>17.25</b> | <b>16.66</b> | <b>18.45</b>   | <b>17.94</b> | <b>18.21</b>  | <b>17.52</b>    |       |              |
|        | SE                                  | 0.21         | 0.30         | 0.22         | 0.23         | 0.69         | 0.28           | 0.31         | 0.30          | 0.24            |       |              |
|        | CD                                  | 0.63         | 0.84         | 0.66         | 0.56         | NS           | 0.58           | NS           | 0.90          | 0.71            |       |              |
|        | CV                                  | 2.05         | 2.81         | 2.03         | 2.34         | 5.06         | 1.83           | 2.95         | 2.87          | 2.65            |       |              |
|        | Qualifying entries at each location |              |              |              |              |              |                |              |               |                 |       |              |
| 1      | Co 15023                            | -            | -            | -            | -            | -            | -              | -            | -             | -               | -     |              |
| 2      | -                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -     |              |
| 3      | -                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -     |              |

**No. of locations where an entry recorded >5% improvement: Co 15023 (1).**

**Performance across the locations:**

CoJ 64 (18.17 %) was the best standard for sucrose % in the zone. Co 15023 (18.61 %) top ranked entry and recorded 2.42 % improvement over better standard (CoJ 64) across the locations and significantly superior over the best standards at Faridkot and Karnal. None of the entries recorded >5% improvement over the best standard CoJ 64 for sucrose % across locations.

**Table 4.2.5. Brix (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | Co 15023         | 21.17        | 19.30        | 22.07        | 20.10        | 19.66        | 21.62          | 20.77        | 22.19         | 19.29           | <b>20.68</b> |
| 2      | Co 15024         | 19.10        | 18.00        | 20.15        | 20.17        | -            | 21.13          | 20.03        | 20.05         | 18.95           | <b>19.65</b> |
| 3      | Co 15027         | 16.53        | 17.87        | 20.34        | 20.40        | 17.82        | 20.89          | 20.50        | 19.11         | 20.01           | <b>19.12</b> |
| 4      | CoLk 15201       | 18.9         | 19.5         | 19.8         | 19.67        | 19.06        | 20.66          | 19.43        | 20.24         | 19.55           | <b>19.67</b> |
| 5      | CoLk 15205       | 20.9         | 20.1         | 20.91        | 19.93        | 18.66        | 20.96          | 20.90        | 21.68         | 20.36           | <b>20.44</b> |
| 6      | CoPb 15212       | 18.87        | 18.77        | 19.35        | 19.97        | 17.08        | 21.43          | 20.50        | 19.31         | 20.15           | <b>19.25</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 20.13        | 19.93        | 20.99        | 19.07        | 19.18        | 21.53          | 20.60        | 20.36         | 19.13           | <b>20.04</b> |
| 2      | Co 0238          | 19.77        | 18.97        | 20.95        | 19.93        | 19.15        | 21.39          | 20.43        | 21.17         | 18.56           | <b>19.99</b> |
| 3      | Co 05009         | 19.00        | 19.20        | 19.99        | 19.00        | 18.35        | 20.19          | 20.50        | 20.63         | 18.29           | <b>19.33</b> |
|        | <b>GM</b>        | <b>19.37</b> | <b>19.07</b> | <b>20.51</b> | <b>19.80</b> | <b>18.62</b> | <b>21.05</b>   | <b>20.41</b> | <b>20.53</b>  | <b>19.27</b>    | <b>19.80</b> |
|        | SE               | 0.22         | 0.30         | 0.32         | 0.23         | 0.68         | 0.33           | 0.30         | 0.29          | 0.18            |              |
|        | CD               | 0.65         | 0.89         | 0.95         | 0.55         | 1.46         | 0.71           | N/A          | 0.88          | 0.54            |              |
|        | CV               | 1.94         | 2.71         | 2.66         | 1.97         | 4.49         | 1.95           | 2.52         | 2.48          | 3.79            |              |

**Table 4.2.6. Purity (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | Co 15023         | 93.74        | 92.50        | 91.03        | 87.34        | 88.68        | 88.41          | 87.70        | 89.27         | 82.54           | <b>89.19</b> |
| 2      | Co 15024         | 91.42        | 90.81        | 89.61        | 87.40        | -            | 87.06          | 87.98        | 88.56         | 89.69           | <b>89.22</b> |
| 3      | Co 15027         | 91.97        | 91.12        | 90.90        | 87.57        | 88.90        | 87.04          | 88.19        | 87.82         | 81.62           | <b>88.37</b> |
| 4      | CoLk 15201       | 91.4         | 90.26        | 87.41        | 87.00        | 89.59        | 87.43          | 86.68        | 88.75         | 84.78           | <b>88.33</b> |
| 5      | CoLk 15205       | 91.53        | 89.95        | 89.29        | 87.21        | 88.90        | 87.54          | 87.91        | 89.11         | 85.29           | <b>88.60</b> |
| 6      | CoPb 15212       | 92.36        | 91.18        | 88.36        | 87.24        | 89.18        | 87.45          | 87.82        | 88.06         | 87.09           | <b>88.87</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 92.65        | 91.67        | 91.92        | 86.49        | 87.81        | 88.69          | 88.11        | 88.6          | 88.46           | <b>89.54</b> |
| 2      | Co 0238          | 92.53        | 91.35        | 92.08        | 87.21        | 86.76        | 87.61          | 88.94        | 89.37         | 89.07           | <b>89.50</b> |
| 3      | Co 05009         | 92.38        | 90.90        | 92.16        | 86.42        | 90.38        | 87.72          | 87.79        | 88.7          | 84.29           | <b>89.12</b> |
|        | <b>GM</b>        | <b>92.22</b> | <b>91.08</b> | <b>90.31</b> | <b>87.10</b> | <b>88.77</b> | <b>87.66</b>   | <b>87.90</b> | <b>88.69</b>  | <b>85.87</b>    | <b>88.97</b> |
|        | SE               | 0.34         | 0.50         | 0.92         | 0.19         | 1.49         | 0.81           | 0.52         | 0.22          | 0.97            |              |
|        | CD               | 1.03         | NS           | 2.79         | 0.45         | 3.20         | NS             | N/A          | 0.65          | 2.92            |              |
|        | CV               | 0.65         | 0.99         | 1.77         | 0.37         | 2.06         | 1.14           | 1.03         | 0.42          | 3.98            |              |



**Table 4.2.7. Pol % cane at harvest**

| S. No. | Clone            | Faridkot | Kapur thala  | Karnal       | Kota | Lucknow      | Muzaffar nagar | Pant Nagar | Shahja hampur | Sriganaga nagar | Mean         |
|--------|------------------|----------|--------------|--------------|------|--------------|----------------|------------|---------------|-----------------|--------------|
| 1      | Co 15023         | -        | 14.65        | 15.90        | -    | 13.38        | 14.69          | -          | 14.92         | -               | 14.71        |
| 2      | Co 15024         | -        | 13.51        | 14.16        | -    | -            | 13.80          | -          | 13.34         | -               | 13.70        |
| 3      | Co 15027         | -        | 12.66        | 14.72        | -    | 12.40        | 13.94          | -          | 12.55         | -               | 13.25        |
| 4      | CoLk 15201       | -        | 13.48        | 12.77        | -    | 13.32        | 13.76          | -          | 13.41         | -               | 13.35        |
| 5      | CoLk 15205       | -        | 14.28        | 13.78        | -    | 12.64        | 14.04          | -          | 14.42         | -               | 13.83        |
| 6      | CoPb 15212       | -        | 14.19        | 13.21        | -    | 11.67        | 14.38          | -          | 12.73         | -               | 13.24        |
|        | <b>Standards</b> | -        |              |              | -    |              |                | -          |               | -               |              |
| 1      | CoJ 64           | -        | 14.05        | 15.11        | -    | 13.27        | 14.65          | -          | 13.6          | -               | 14.14        |
| 2      | Co 0238          | -        | 14.23        | 14.97        | -    | 12.69        | 14.35          | -          | 14.24         | -               | 14.10        |
| 3      | Co 05009         | -        | 14.13        | 14.06        | -    | 12.76        | 13.55          | -          | 13.68         | -               | 13.64        |
|        | <b>GM</b>        | -        | <b>13.91</b> | <b>14.30</b> | -    | <b>12.77</b> | <b>14.13</b>   | -          | <b>13.66</b>  | -               | <b>13.77</b> |
|        | SE               | -        | 0.30         | 0.16         | -    | 0.51         | -              | -          | 0.23          | -               |              |
|        | CD               | -        | 0.96         | 0.49         | -    | ns           | -              | -          | 0.69          | -               |              |
|        | CV               | -        | 4.00         | 1.95         | -    | 4.92         | -              | -          | 2.91          | -               |              |

**Table 4.2.8. Extraction (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapurthala   | Karnal | Kota         | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------|--------------|--------------|----------------|------------|---------------|-----------------|--------------|
| 1      | Co 15023         | 53.24        | 53.94        | -      | 46.30        | 50.12        | 46.75          | -          | 51.14         | -               | <b>50.25</b> |
| 2      | Co 15024         | 52.66        | 52.12        | -      | 46.73        | -            | 39.58          | -          | 53.78         | -               | <b>48.97</b> |
| 3      | Co 15027         | 55.8         | 55.01        | -      | 50.07        | 51.02        | 47.08          | -          | 54.05         | -               | <b>52.17</b> |
| 4      | CoLk 15201       | 48.01        | 51.58        | -      | 45.87        | 53.23        | 40.60          | -          | 50.95         | -               | <b>48.37</b> |
| 5      | CoLk 15205       | 48           | 48.62        | -      | 44.16        | 51.91        | 43.56          | -          | 51.18         | -               | <b>47.91</b> |
| 6      | CoPb 15212       | 47.39        | 50.41        | -      | 41.81        | 50.13        | 45.85          | -          | 52.7          | -               | <b>48.06</b> |
|        | <b>Standards</b> |              |              | -      |              |              |                | -          |               | -               |              |
| 1      | CoJ 64           | 53.41        | 53.03        | -      | 46.09        | 50.86        | 42.36          | -          | 52.94         | -               | <b>49.78</b> |
| 2      | Co 0238          | 52.43        | 54.69        | -      | 48.89        | 51.27        | 47.42          | -          | 54.55         | -               | <b>51.54</b> |
| 3      | Co 05009         | 52.28        | 54.17        | -      | 46.89        | 51.49        | 43.11          | -          | 52.49         | -               | <b>50.07</b> |
|        | <b>GM</b>        | <b>51.47</b> | <b>52.62</b> | -      | <b>46.31</b> | <b>51.25</b> | <b>44.03</b>   | -          | <b>52.64</b>  | -               | <b>49.68</b> |
|        | SE               | 0.74         | 1.40         | -      | 0.40         | 2.20         | -              | -          | 1.35          | -               |              |
|        | CD               | 2.2          | NS           | -      | 0.98         | NS           | -              | -          | NS            | -               |              |
|        | CV               | 2.47         | 4.65         | -      | 1.51         | 5.27         | -              | -          | 4.45          | -               |              |

**Table 4.2.9. Fibre (%) at harvest**

| S. No. | Clone            | Faridkot | Kapur thala  | Karnal | Kota | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hampur | Sriganaga nagar | Mean         |
|--------|------------------|----------|--------------|--------|------|--------------|----------------|------------|---------------|-----------------|--------------|
| 1      | Co 15023         |          | 13.84        | -      | -    | 13.90        | 13.11          | -          | -             | -               | <b>13.62</b> |
| 2      | Co 15024         |          | 13.95        | -      | -    | -            | 13.51          | -          | -             | -               | <b>13.73</b> |
| 3      | Co 15027         |          | 12.64        | -      | -    | 12.55        | 13.37          | -          | -             | -               | <b>12.85</b> |
| 4      | CoLk 15201       |          | 14.37        | -      | -    | 12.69        | 13.8           | -          | -             | -               | <b>13.62</b> |
| 5      | CoLk 15205       |          | 14.97        | -      | -    | 14.11        | 13.48          | -          | -             | -               | <b>14.19</b> |
| 6      | CoPb 15212       |          | 14.51        | -      | -    | 13.49        | 13.26          | -          | -             | -               | <b>13.75</b> |
|        | <b>Standards</b> |          |              | -      | -    |              |                | -          | -             | -               |              |
| 1      | CoJ 64           |          | 13.87        | -      | -    | 13.01        | 13.25          | -          | -             | -               | <b>13.38</b> |
| 2      | Co 0238          |          | 14.24        | -      | -    | 13.97        | 13.44          | -          | -             | -               | <b>13.88</b> |
| 3      | Co 05009         |          | 14.11        | -      | -    | 13.05        | 13.61          | -          | -             | -               | <b>13.59</b> |
|        | <b>GM</b>        |          | <b>14.05</b> | -      | -    | <b>13.35</b> | <b>13.46</b>   | -          | -             | -               | <b>13.62</b> |
|        | SE               |          | 0.40         | -      | -    | 0.85         | -              | -          | -             | -               |              |
|        | CD               |          | NS           | -      | -    | NS           | -              | -          | -             | -               |              |
|        | CV               |          | 5.04         | -      | -    | 7.76         | -              | -          | -             | -               |              |

**Table 4.2.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal        | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|---------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | Co 15023         | 55.71        | 61.31        | 87.35         | 75.80        | 83.45        | 87.53          | 22.67        | 58.02         | 86.06           | <b>74.40</b> |
| 2      | Co 15024         | 73.15        | 65.69        | 83.80         | 90.25        | -            | 92.84          | 29.33        | 48.89         | 94.75           | <b>78.48</b> |
| 3      | Co 15027         | 69.44        | 75.31        | 79.94         | 83.95        | 87.82        | 84.69          | 35.33        | 84.69         | 102.22          | <b>83.51</b> |
| 4      | CoLk 15201       | 74.54        | 69.54        | 107.64        | 82.22        | 102.65       | 90.24          | 40.33        | 97.41         | 89              | <b>89.16</b> |
| 5      | CoLk 15205       | 108.33       | 77.07        | 119.29        | 82.96        | 109.78       | 104.81         | 44.00        | 105.93        | 72.2            | <b>97.55</b> |
| 6      | CoPb 15212       | 87.81        | 78.81        | 115.97        | 77.41        | 101.44       | 109.50         | 46.00        | 99.01         | 84.88           | <b>94.35</b> |
|        | <b>Standards</b> |              |              |               |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 94.14        | 90.50        | 108.26        | 75.80        | 92.04        | 103.33         | 42.00        | 110.49        | 82.43           | <b>94.62</b> |
| 2      | Co 0238          | 84.1         | 71.88        | 96.30         | 69.63        | 84.10        | 91.60          | 29.00        | 98.02         | 102.27          | <b>87.24</b> |
| 3      | Co 05009         | 94.6         | 77.74        | 102.24        | 70.49        | 78.99        | 97.40          | 40.00        | 66.05         | 100.83          | <b>86.04</b> |
|        | <b>GM</b>        | <b>82.42</b> | <b>74.95</b> | <b>100.09</b> | <b>78.72</b> | <b>92.53</b> | <b>95.77</b>   | <b>36.52</b> | <b>85.39</b>  | <b>99.8</b>     | <b>87.26</b> |
|        | SE               | 5.56         | 2.27         | 2.80          | 5.68         | 2.94         | 2.35           | 1.61         | 3.51          | 3.56            |              |
|        | CD               | 16.68        | 6.80         | 8.50          | 13.73        | 6.30         | 4.97           | 4.86         | 10.54         | 10.69           |              |
|        | CV               | 11.69        | 5.25         | 4.84          | 12.49        | 3.89         | 8.10           | 7.63         | 7.13          | 7.00            |              |

**Table 4.2.11. Stalk Length (cm) at harvest**

| S. No. | Clone            | Faridkot      | Kapur thala   | Karnal        | Kota          | Lucknow       | Muzaffar nagar | Pant nagar    | Shahja hanpur | Srganaga nagar | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|
| 1      | Co 15023         | 189.00        | 212.00        | 258.00        | 152.00        | 167.00        | 152.00         | 212.00        | 195.00        | 153.00         | <b>184.73</b> |
| 2      | Co 15024         | 172.00        | 214.00        | 225.00        | 153.00        | -             | 157.00         | 165.00        | 187.00        | 155.00         | <b>180.37</b> |
| 3      | Co 15027         | 216.00        | 227.00        | 268.00        | 158.00        | 173.00        | 177.00         | 214.00        | 233.00        | 163.00         | <b>201.92</b> |
| 4      | CoLk 15201       | 236.00        | 251.00        | 292.00        | 179.00        | 187.00        | 186.00         | 288.00        | 240.00        | 165.00         | <b>216.91</b> |
| 5      | CoLk 15205       | 262.00        | 226.00        | 285.00        | 162.00        | 172.00        | 150.00         | 254.00        | 229.00        | 164.00         | <b>206.25</b> |
| 6      | CoPb 15212       | 255.00        | 253.00        | 235.00        | 182.00        | 165.00        | 183.00         | 250.00        | 217.00        | 173.00         | <b>207.77</b> |
|        | <b>Standards</b> |               |               |               |               |               |                |               |               |                |               |
| 1      | CoJ 64           | 202.00        | 216.00        | 263.00        | 145.00        | 147.00        | 136.00         | 221.00        | 207.00        | 168.00         | <b>185.53</b> |
| 2      | Co 0238          | 192.00        | 255.00        | 255.00        | 174.00        | 162.00        | 193.00         | 229.00        | 248.00        | 169.00         | <b>206.04</b> |
| 3      | Co 05009         | 267.00        | 248.00        | 327.00        | 168.00        | 146.00        | 177.00         | 258.00        | 209.00        | 176.00         | <b>214.86</b> |
|        | <b>GM</b>        | <b>221.26</b> | <b>233.52</b> | <b>267.56</b> | <b>163.67</b> | <b>164.88</b> | <b>167.89</b>  | <b>232.33</b> | <b>218.28</b> | <b>165.11</b>  | <b>200.48</b> |
|        | SE               | 8.26          | 5.35          | 0.08          | 0.07          | 0.06          | 0.10           | 0.07          | 10.51         | 0.10           |               |
|        | CD               | 24.77         | 16.02         | 24.00         | 16.00         | 12.00         | 21.00          | 22.00         | 31.51         | 29.00          |               |
|        | CV               | 6.47          | 3.97          | 5.14          | 7.20          | 4.20          | 7.09           | 5.44          | 8.34          | 7.96           |               |

**Table 4.2.12. Stalk Diameter (cm) at harvest**

| S. No. | Clone            | Faridkot    | Kapur thala | Karnal      | Kota        | Lucknow     | Muzaffar nagar | Pant nagar  | Shahja hanpur | Sriganaga nagar | Mean        |
|--------|------------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|-----------------|-------------|
| 1      | Co 15023         | 2.51        | 2.41        | 2.66        | 2.55        | 2.37        | 2.52           | 2.77        | 2.27          | 2.32            | <b>2.45</b> |
| 2      | Co 15024         | 2.69        | 2.53        | 2.50        | 2.30        | -           | 2.02           | 2.71        | 2.25          | 2.25            | <b>2.36</b> |
| 3      | Co 15027         | 3.25        | 2.75        | 3.06        | 2.83        | 2.70        | 2.98           | 3.09        | 2.47          | 2.29            | <b>2.79</b> |
| 4      | CoLk 15201       | 2.37        | 2.61        | 2.38        | 2.53        | 2.61        | 2.32           | 2.62        | 2.43          | 2.3             | <b>2.44</b> |
| 5      | CoLk 15205       | 1.93        | 2.26        | 1.96        | 2.07        | 2.23        | 1.92           | 2.12        | 2.01          | 2.37            | <b>2.09</b> |
| 6      | CoPb 15212       | 2.43        | 2.44        | 2.28        | 2.03        | 2.29        | 2.12           | 2.26        | 2.18          | 2.4             | <b>2.27</b> |
|        | <b>Standards</b> |             |             |             |             |             |                |             |               |                 |             |
| 1      | CoJ 64           | 2.2         | 2.18        | 2.38        | 2.20        | 2.27        | 2.04           | 2.28        | 2.07          | 2.26            | <b>2.20</b> |
| 2      | Co 0238          | 2.44        | 2.68        | 2.69        | 2.53        | 2.56        | 2.30           | 2.61        | 2.51          | 2.41            | <b>2.52</b> |
| 3      | Co 05009         | 2.28        | 2.49        | 2.03        | 2.17        | 2.30        | 1.98           | 2.12        | 2.29          | 2.33            | <b>2.23</b> |
|        | <b>GM</b>        | <b>2.45</b> | <b>2.49</b> | <b>2.44</b> | <b>2.36</b> | <b>2.42</b> | <b>2.02</b>    | <b>2.51</b> | <b>2.28</b>   | <b>2.39</b>     | <b>2.37</b> |
|        | SE               | 0.04        | 0.11        | 0.08        | 0.10        | 0.05        | 0.07           | 0.10        | 0.03          | 0.06            |             |
|        | CD               | 0.12        | 0.32        | 0.25        | 0.23        | 0.10        | 0.14           | 0.29        | 0.08          | 0.19            |             |
|        | CV               | 2.71        | 7.55        | 5.93        | 7.07        | 2.32        | 3.70           | 6.54        | 2.12          | 2.85            |             |

**Table 4.2.13. Single Cane Weight (kg.) at harvest**

| S. No. | Clone            | Faridkot    | Kapur thala | Karnal      | Kota        | Lucknow     | Muzaffar nagar | Pant nagar  | Shahja hanpur | Sriganaga nagar | Mean        |
|--------|------------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|-----------------|-------------|
| 1      | Co 15023         | 0.95        | 1.10        | 1.52        | 1.12        | 0.76        | 0.81           | 1.67        | 0.83          | 1.04            | <b>1.02</b> |
| 2      | Co 15024         | 0.90        | 1.00        | 1.22        | 1.02        | -           | 0.56           | 1.18        | 0.79          | 1.08            | <b>0.94</b> |
| 3      | Co 15027         | 1.49        | 1.26        | 1.75        | 1.10        | 0.92        | 1.15           | 2.08        | 0.91          | 1.08            | <b>1.21</b> |
| 4      | CoLk 15201       | 0.87        | 1.14        | 1.18        | 1.18        | 0.90        | 0.82           | 1.97        | 0.90          | 1.14            | <b>1.02</b> |
| 5      | CoLk 15205       | 0.77        | 0.82        | 0.88        | 0.98        | 0.75        | 0.67           | 1.31        | 0.75          | 1.13            | <b>0.84</b> |
| 6      | CoPb 15212       | 1.09        | 1.09        | 0.93        | 1.03        | 0.69        | 0.66           | 1.33        | 0.77          | 1.03            | <b>0.91</b> |
|        | <b>Standards</b> |             |             |             |             |             |                |             |               |                 |             |
| 1      | CoJ 64           | 0.70        | 0.83        | 0.94        | 1.07        | 0.75        | 0.62           | 1.16        | 0.66          | 0.92            | <b>0.81</b> |
| 2      | Co 0238          | 0.86        | 1.14        | 1.29        | 1.17        | 0.83        | 0.84           | 1.69        | 0.88          | 0.99            | <b>1.00</b> |
| 3      | Co 05009         | 0.98        | 0.95        | 1.17        | 1.09        | 0.64        | 0.69           | 1.38        | 0.90          | 0.95            | <b>0.92</b> |
|        | <b>GM</b>        | <b>0.96</b> | <b>1.04</b> | <b>1.21</b> | <b>1.08</b> | <b>0.78</b> | <b>0.76</b>    | <b>1.53</b> | <b>0.82</b>   | <b>1.04</b>     | <b>0.96</b> |
|        | SE               | 0.03        | 0.04        | 0.04        | 0.04        | 0.04        | 0.03           | 0.04        | 0.04          | 0.05            |             |
|        | CD               | 0.1         | 0.14        | 0.11        | 0.10        | 0.09        | 0.06           | 0.11        | 0.12          | 0.16            |             |
|        | CV               | 5.98        | 7.57        | 5.37        | 6.69        | 6.58        | 4.36           | 3.93        | 8.48          | 1.2             |             |

**Table 4.2.14. Number of Shoots ('000/ha) at 180 days**

| S. No. | Clone            | Faridkot    | Kapur thala  | Karnal        | Kota         | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Mean          |
|--------|------------------|-------------|--------------|---------------|--------------|--------------|----------------|------------|---------------|-----------------|---------------|
| 1      | Co 15023         | 69.75       | 63.00        | 192.67        | 80.00        | 86.03        | -              | -          | -             | -               | 98.29         |
| 2      | Co 15024         | 78.55       | 81.15        | 107.10        | 83.09        | -            | -              | -          | -             | -               | 87.47         |
| 3      | Co 15027         | 81.94       | 82.67        | 186.42        | 88.64        | 89.97        | -              | -          | -             | -               | 105.93        |
| 4      | CoLk 15201       | 81.02       | 78.12        | 162.81        | 85.31        | 107.64       | -              | -          | -             | -               | 102.98        |
| 5      | CoLk 15205       | 116.2       | 89.73        | 211.57        | 87.28        | 112.81       | -              | -          | -             | -               | 123.52        |
| 6      | CoPb 15212       | 98.61       | 80.98        | 207.25        | 82.84        | 105.56       | -              | -          | -             | -               | 115.05        |
|        | <b>Standards</b> |             |              |               |              |              |                |            |               |                 |               |
| 1      | CoJ 64           | 119.75      | 97.68        | 204.09        | 78.52        | 94.21        | -              | -          | -             | -               | 118.85        |
| 2      | Co 0238          | 101.39      | 82.28        | 163.58        | 73.95        | 87.65        | -              | -          | -             | -               | 101.77        |
| 3      | Co 05009         | 104.17      | 83.87        | 207.95        | 72.59        | 82.25        | -              | -          | -             | -               | 110.17        |
|        | <b>GM</b>        | <b>94.6</b> | <b>82.16</b> | <b>182.60</b> | <b>81.36</b> | <b>95.77</b> | -              | -          | -             | -               | <b>107.11</b> |
|        | SE               | 6.53        | 2.22         | 10.06         | 4.62         | 2.43         | -              | -          | -             | -               |               |
|        | CD               | 19.58       | 6.65         | 30.44         | 11.19        | 5.22         | -              | -          | -             | -               |               |
|        | CV               | 11.96       | 4.68         | 9.55          | 9.85         | 3.11         | -              | -          | -             | -               |               |



**Table 4.2.15. Number of Tillers ('000/ha) at 90 days**

| S. No. | Clone            | Faridkot      | Kapur thala  | Karnal        | Kota         | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Mean          |
|--------|------------------|---------------|--------------|---------------|--------------|--------------|----------------|------------|---------------|-----------------|---------------|
| 1      | Co 15023         | 98.61         | 76.09        | 191.60        | 87.78        | 89.27        | 159.14         | -          | 141.85        | 117.9           | <b>120.28</b> |
| 2      | Co 15024         | 111.42        | 86.55        | 81.90         | 103.58       | -            | 160.37         | -          | 130.62        | 129.81          | <b>114.89</b> |
| 3      | Co 15027         | 119.6         | 89.52        | 175.50        | 97.78        | 93.06        | 162.96         | -          | 152.72        | 140.04          | <b>128.90</b> |
| 4      | CoLk 15201       | 101.39        | 88.13        | 225.50        | 95.56        | 109.95       | 157.90         | -          | 178.02        | 121.93          | <b>134.80</b> |
| 5      | CoLk 15205       | 137.19        | 99.07        | 202.20        | 96.17        | 115.59       | 159.26         | -          | 199.88        | 98.92           | <b>138.54</b> |
| 6      | CoPb 15212       | 145.22        | 89.17        | 195.70        | 89.75        | 108.26       | 194.57         | -          | 185.68        | 116.29          | <b>140.58</b> |
|        | <b>Standards</b> |               |              |               |              |              |                |            |               |                 |               |
| 1      | CoJ 64           | 142.75        | 102.57       | 229.00        | 84.07        | 97.53        | 163.95         | -          | 194.69        | 112.93          | <b>140.94</b> |
| 2      | Co 0238          | 147.07        | 87.48        | 185.30        | 84.94        | 89.74        | 147.65         | -          | 178.89        | 140.11          | <b>132.65</b> |
| 3      | Co 05009         | 131.48        | 93.21        | 214.00        | 78.89        | 86.65        | 149.26         | -          | 153.33        | 138.13          | <b>130.62</b> |
|        | <b>GM</b>        | <b>126.08</b> | <b>90.20</b> | <b>189.00</b> | <b>90.95</b> | <b>98.76</b> | <b>161.67</b>  | -          | <b>168.41</b> | <b>169.5</b>    | <b>131.35</b> |
|        | SE               | 9.79          | 3.03         | 8.67          | 5.23         | 2.33         | 2.43           | -          | 5.77          | 3.78            |               |
|        | CD               | 29.34         | 9.08         | 26.21         | 12.64        | 4.99         | 5.15           | -          | 17.29         | 11.34           |               |
|        | CV               | 13.44         | 5.82         | 7.94          | 9.95         | 2.88         | 4.97           | -          | 5.93          | 12.35           |               |

**Table 4.2.16 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S. No | Genotype   | Lucknow | Shahjahanpur | Pantnagar | Muzaffarnagar | Karnal | Uchani | Kapurthala | Faridkot | Sriganganagar | Kota   |
|-------|------------|---------|--------------|-----------|---------------|--------|--------|------------|----------|---------------|--------|
| 1     | Co15023    | Poor    | Poor         | Poor      | Poor          | On par | NA     | Poor       | Poor     | Better        | Better |
| 2     | Co 15024   | Poor    | Poor         | Poor      | Poor          | Poor   | NA     | Poor       | Poor     | On par        | On par |
| 3     | Co 15027   | On par  | On par       | Better    | Better        | Better | NA     | Better     | Better   | Better        | Better |
| 4     | CoLk 15201 | Poor    | On par       | On par    | On par        | Better | NA     | Better     | Poor     | On par        | On par |
| 5     | CoLk 15205 | Poor    | Better       | On par    | Better        | Poor   | NA     | On par     | On par   | Poor          | Better |
| 6     | CoPb 15212 | On par  | Better       | Poor      | Better        | Poor   | NA     | Better     | Better   | On par        | On par |
|       | Standards  |         |              |           |               |        |        |            |          |               |        |
| 1     | CoJ 64     | II      | III          | III       | II            | III    | NA     | III        | III      | III           | III    |
| 2     | Co 0238    | Best    | Best         | II        | Best          | Best   | NA     | Best       | II       | Best          | Best   |
| 3     | Co 05009   | III     | II           | Best      | III           | II     | NA     | II         | Best     | II            | II     |

NA= Not allotted

### **4.3. ADVANCED VARIETAL TRIAL (EARLY)**

#### **Mean of Two plant and one ratoon crops (2019-21)**

Six early clones were evaluated along with three standards during 2019-20 in AVT-I Plant and during 2020-21 in AVT-II Plant as well as AVT-Ratoon experiments at 9 locations in North West Zone. The mean CCS yield, cane yield, CCS % and sucrose % of two plant crops and one ratoon are presented in **Tables 4.3.1 to 4.3.4** as well as in **Figures 4.3.1 to 4.3.4**.

#### **Commercial Cane Sugar yield (t/ha):**

Co 0238 was the best standard for CCS yield (11.71 t/ha). None of the entries recorded 10 percent improvement over the best standard. However, among the test entries, Co 15027 (12.56 t/ha) ranked top and recorded 7.26 per cent improvement over the best standard (Co 0238) in the zone and it performed better in three locations (Karnal, Kota and Pantnagar). CoLk 15201 ranked second among the test entries in the zone with 11.52 t/ha of CCS yield.

#### **Cane Yield (t/ha):**

Co 0238 was the best standard for cane yield with 93.78 t/ha. Among the test entries, Co 15027 (102.70 t/ha) was the top yielder and 9.51 per cent improvement over the best standard (Co 0238) in the zone. It performed better in three locations (Faridkot, Karnal and Pantnagar). CoLk 15201 ranked second with 95.69 (t/ha) of cane yield and 2.04 per cent improvement over the best standard (Co 0238) in the zone. It performed better in four locations (Karnal, Lucknow, Pantnagar and Shahjahanpur) in the zone.

#### **Commercial Cane Sugar (%):**

Co 0238 was the best standard with a mean CCS % of 12.48. Among the entries, Co 15023 (13.10 %) recorded 4.97 % improvement over the best standard Co 0238 in the zone. It performed better in four locations (Faridkot, Karnal, Pantnagar and Shahjahanpur) in the zone.

#### **Sucrose (%):**

CoJ 64 was the best standard with mean juice sucrose of 18.01 % in the zone. Among the test entries, for juice sucrose %, Co 15023 (18.97 %) ranked top and 5.33 % improvement over the best standard (CoJ 64) in the zone followed by CoLk 15205 (17.95 %), Co 15024 (17.55 %) and Co 15027 (15.52 %) in the zone.

#### **Overall performance:**

Based on the pooled mean of two plant and one ratoon crop in the zone, Co 0238 was the best standard for CCS yield (t/ha), cane yield (t/ha) and CCS %, and CoJ 64 was the best standard for sucrose % in the zone. Among the test entries, Co 15027 ranked top in the zone for CCS yield (12.56 t/ha) and for cane yield (102.70 t/ha) with 7.26 % and 9.51 % respectively improvement over the best standard Co 0238. Co 0238 was the best standard for CCS % with 12.48 % and CoJ 64 for juice sucrose with 18.01 %. Among the test entries, Co 15023 ranked top for both CCS % (13.10 %) and for sucrose % (18.97 %) with 4.97 % and 5.33 % respectively improvement over the respective best standard in the zone. From this trial, none of the test entries was identified as qualifying entry across locations in the zone. However, among the test entries, Co 15027 recorded 9.51 % of improvement in cane yield and comparable juice sucrose % over the best standard Co 0238 in the zone.

**Table 4.3.1. CCS yield at harvest (t/ha)**

| S. No | Entries          | Faridkot    |              |             |              | Kapurthala   |              |             |              | Karnal       |              |              |              | Kota         |              |              |              | Lucknow     |              |             |              |
|-------|------------------|-------------|--------------|-------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|
|       |                  | I*          | II           | R           | Mean *       | I            | II           | R           | Mean         | I            | II           | R            | Mean         | I            | II           | R            | Mean         | I*          | II           | R           | Mean *       |
| 1     | Co 15023         | 6.59        | 8.57         | 6.26        | <b>7.42</b>  | 10.23        | 10.37        | 8.73        | <b>9.78</b>  | 20.13        | 20.31        | 18.75        | <b>19.73</b> | 12.53        | 11.52        | 10.25        | <b>11.43</b> | 8.85        | 11.87        | 7.78        | <b>9.83</b>  |
| 2     | Co 15024         | 9.12        | 12.45        | 6.93        | <b>9.69</b>  | 11.64        | 9.75         | 9.05        | <b>10.15</b> | 11.00        | 13.21        | 12.76        | <b>12.32</b> | 10.17        | 11.30        | 11.01        | <b>10.83</b> | 7.01        | 9.29         | -           | <b>9.29</b>  |
| 3     | Co 15027         | 10.97       | 14.85        | 9.72        | <b>12.29</b> | 11.49        | 11.81        | 9.98        | <b>11.09</b> | 17.14        | 19.99        | 18.13        | <b>18.42</b> | 12.63        | 13.71        | 11.40        | <b>12.58</b> | 8.70        | 9.82         | 9.02        | <b>9.42</b>  |
| 4     | CoLk 15201       | 9.47        | 11.08        | 7.77        | <b>9.43</b>  | 10.02        | 10.58        | 9.28        | <b>9.96</b>  | 11.03        | 12.08        | 15.20        | <b>12.77</b> | 10.73        | 10.43        | 11.44        | <b>10.87</b> | 13.21       | 14.89        | 11.04       | <b>12.97</b> |
| 5     | CoLk 15205       | 8.67        | 11.05        | 9.46        | <b>10.26</b> | 7.99         | 8.52         | 7.37        | <b>7.96</b>  | 10.62        | 10.09        | 13.70        | <b>11.47</b> | 9.06         | 10.74        | 9.74         | <b>9.85</b>  | 11.27       | 12.25        | 9.53        | <b>10.89</b> |
| 6     | CoPb 15212       | 9.97        | 12.74        | 10.60       | <b>11.67</b> | 11.63        | 11.28        | 10.36       | <b>11.09</b> | 8.36         | 11.99        | 12.68        | <b>11.01</b> | 10.03        | 10.72        | 9.52         | <b>10.09</b> | 9.34        | 11.18        | 7.39        | <b>9.29</b>  |
|       | <b>Standards</b> |             |              |             |              |              |              |             |              |              |              |              |              |              |              |              |              |             |              |             |              |
| 1     | Col 64           | 9.50        | 11.26        | 7.93        | <b>9.60</b>  | 10.77        | 9.34         | 9.96        | <b>10.02</b> | 11.14        | 10.83        | 13.87        | <b>11.95</b> | 8.96         | 9.14         | 9.21         | <b>9.10</b>  | 8.05        | 8.94         | 8.26        | <b>8.60</b>  |
| 2     | Co 0238          | 9.24        | 12.08        | 8.91        | <b>10.50</b> | 11.79        | 10.94        | 10.19       | <b>10.97</b> | 14.98        | 14.95        | 16.89        | <b>15.61</b> | 11.23        | 10.32        | 9.75         | <b>10.43</b> | 10.5        | 10.70        | 7.99        | <b>9.35</b>  |
| 3     | Co 05009         | 10.28       | 14.11        | 9.86        | <b>11.99</b> | 10.47        | 10.55        | 9.44        | <b>10.15</b> | 12.55        | 14.31        | 15.54        | <b>14.13</b> | 10.32        | 9.63         | 8.64         | <b>9.53</b>  | 5.95        | 7.19         | 5.90        | <b>6.55</b>  |
|       | <b>Mean</b>      | <b>9.31</b> | <b>12.22</b> | <b>8.61</b> | <b>10.31</b> | <b>10.67</b> | <b>10.35</b> | <b>9.37</b> | <b>10.13</b> | <b>12.99</b> | <b>14.20</b> | <b>15.28</b> | <b>14.16</b> | <b>10.62</b> | <b>10.83</b> | <b>10.11</b> | <b>10.52</b> | <b>9.21</b> | <b>10.68</b> | <b>8.36</b> | <b>9.57</b>  |

\* while calculating mean CCS yield in the zone, 1st Plant data of Faridkot, Lucknow and Muzaffarnagar, and Ratoon crop of Pantnagar were excluded due to lower cane yield in the trial than the State average yield.

*Varietal Improvement Programme – AICRP (Sugarcane)  
Principal Investigator's Report (2020-21),  
North West Zone – AVT Early (Mean of 2 Plant + 1 Ratoon)*

| S. No | Entry            | Muzaffarnagar |              |             |              | Pantnagar    |              |             |              | Shahjahanpur |              |             |              | Sriganaganagar |              |             |              | Weighted Mean* | Rank     |
|-------|------------------|---------------|--------------|-------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|-------------|--------------|----------------|--------------|-------------|--------------|----------------|----------|
|       |                  | I*            | II           | R           | Mean *       | I            | II           | R*          | Mean *       | I            | II           | R           | Mean         | I              | II           | R           | Mean         |                |          |
| 1     | Co 15023         | 9.29          | 10.07        | 6.67        | <b>8.37</b>  | 15.45        | 13.49        | 4.73        | <b>14.47</b> | 10.63        | 12.07        | 6.63        | <b>9.78</b>  | 9.19           | 12.71        | 8.07        | <b>9.99</b>  | <b>11.40</b>   |          |
| 2     | Co 15024         | 8.58          | 8.59         | 5.12        | <b>6.86</b>  | 14.57        | 9.76         | 4.20        | <b>12.17</b> | 9.84         | 10.71        | 4.73        | <b>8.43</b>  | 8.96           | 13.86        | 8.94        | <b>10.59</b> | <b>10.09</b>   |          |
| 3     | Co 15027         | 8.96          | 12.94        | 9.57        | <b>11.26</b> | 17.55        | 13.20        | 9.18        | <b>15.38</b> | 11.54        | 11.35        | 8.72        | <b>10.54</b> | 9.40           | 14.20        | 10.74       | <b>11.45</b> | <b>12.56</b>   | <b>1</b> |
| 4     | CoLk 15201       | 10.18         | 12.27        | 8.63        | <b>10.45</b> | 19.39        | 11.69        | 9.15        | <b>15.54</b> | 12.62        | 12.04        | 10.93       | <b>11.86</b> | 9.28           | 13.24        | 9.34        | <b>10.62</b> | <b>11.52</b>   | <b>3</b> |
| 5     | CoLk 15205       | 6.76          | 8.21         | 8.65        | <b>8.43</b>  | 12.73        | 5.27         | 7.35        | <b>9.00</b>  | 10.44        | 12.61        | 10.67       | <b>11.24</b> | 10.36          | 15.42        | 7.17        | <b>10.98</b> | <b>10.07</b>   |          |
| 6     | CoPb 15212       | 7.20          | 8.91         | 8.99        | <b>8.95</b>  | 13.35        | 7.87         | 7.56        | <b>10.61</b> | 10.07        | 10.51        | 8.90        | <b>9.83</b>  | 10.67          | 12.51        | 8.14        | <b>10.44</b> | <b>10.37</b>   |          |
|       | <b>Standards</b> |               |              |             |              |              |              |             |              |              |              |             |              |                |              |             |              |                |          |
| 1     | CoJ 64           | 6.53          | 10.87        | 7.38        | <b>9.13</b>  | 18.85        | 9.44         | 6.11        | <b>14.15</b> | 9.81         | 10.09        | 9.09        | <b>9.66</b>  | 9.51           | 13.78        | 7.50        | <b>10.26</b> | <b>10.26</b>   |          |
| 2     | Co 0238          | 8.89          | 11.01        | 8.29        | <b>9.65</b>  | 19.44        | 9.81         | 6.18        | <b>14.63</b> | 12.91        | 12.83        | 11.30       | <b>12.35</b> | 9.67           | 12.40        | 10.87       | <b>10.98</b> | <b>11.71</b>   | <b>2</b> |
| 3     | Co 05009         | 7.66          | 8.99         | 8.03        | <b>8.51</b>  | 16.39        | 9.57         | 6.86        | <b>12.98</b> | 9.85         | 10.37        | 7.50        | <b>9.24</b>  | 8.77           | 14.12        | 9.56        | <b>10.82</b> | <b>10.51</b>   |          |
|       | <b>Mean</b>      | <b>8.23</b>   | <b>10.21</b> | <b>7.93</b> | <b>9.07</b>  | <b>16.41</b> | <b>10.01</b> | <b>6.81</b> | <b>13.21</b> | <b>10.86</b> | <b>11.40</b> | <b>8.72</b> | <b>10.33</b> | <b>9.55</b>    | <b>13.58</b> | <b>8.93</b> | <b>10.69</b> |                |          |

**Table 4.3.2. Cane yield at harvest (t/ha)**

| S. No | Entries          | Faridkot     |               |              |               | Kapurthala   |              |              |              | Karnal       |               |               |               | Kota         |              |              |              | Lucknow      |              |              |               |
|-------|------------------|--------------|---------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
|       |                  | I*           | II            | R            | Mean*         | I            | II           | R            | Mean         | I            | II            | R             | Mean          | I            | II           | R            | Mean         | I*           | II           | R            | Mean*         |
| 1     | Co 15023         | 46.60        | 61.11         | 44.44        | <b>52.78</b>  | 77.08        | 79.74        | 69.37        | <b>75.40</b> | 129.32       | 135.87        | 133.16        | <b>132.78</b> | 92.06        | 90.91        | 85.08        | <b>89.35</b> | 68.65        | 91.41        | 63.66        | <b>77.54</b>  |
| 2     | Co 15024         | 75.02        | 112.35        | 56.48        | <b>84.42</b>  | 97.67        | 82.07        | 79.03        | <b>86.26</b> | 87.92        | 100.76        | 101.84        | <b>96.84</b>  | 81.01        | 92.43        | 90.87        | <b>88.10</b> | 56.27        | 75.50        | -            | <b>75.50</b>  |
| 3     | Co 15027         | 89.81        | 125.00        | 90.43        | <b>107.72</b> | 100.34       | 95.34        | 87.45        | <b>94.38</b> | 132.25       | 147.29        | 139.92        | <b>139.82</b> | 95.76        | 100.19       | 92.47        | <b>96.14</b> | 69.99        | 85.43        | 80.85        | <b>83.14</b>  |
| 4     | CoLk 15201       | 74.69        | 107.41        | 64.20        | <b>85.81</b>  | 83.67        | 86.67        | 75.43        | <b>81.92</b> | 89.08        | 93.87         | 127.39        | <b>103.45</b> | 84.01        | 87.15        | 97.25        | <b>89.47</b> | 100.44       | 116.59       | 91.79        | <b>104.19</b> |
| 5     | CoLk 15205       | 68.83        | 93.52         | 70.37        | <b>81.95</b>  | 64.81        | 68.75        | 58.42        | <b>63.99</b> | 83.76        | 78.03         | 105.38        | <b>89.06</b>  | 69.65        | 85.20        | 81.47        | <b>78.77</b> | 85.78        | 96.50        | 82.19        | <b>89.35</b>  |
| 6     | CoPb 15212       | 83.02        | 112.35        | 86.11        | <b>99.23</b>  | 95.04        | 93.37        | 86.28        | <b>91.56</b> | 70.16        | 95.58         | 107.21        | <b>90.98</b>  | 79.40        | 89.08        | 79.58        | <b>82.69</b> | 78.83        | 92.69        | 69.88        | <b>81.29</b>  |
|       | <b>Standards</b> |              |               |              |               |              |              |              |              |              |               |               |               |              |              |              |              |              |              |              |               |
| 1     | CoJ 64           | 71.91        | 88.89         | 60.19        | <b>74.54</b>  | 85.85        | 76.84        | 77.39        | <b>80.03</b> | 86.47        | 83.18         | 102.14        | <b>90.60</b>  | 69.90        | 77.77        | 81.47        | <b>76.38</b> | 62.13        | 71.63        | 68.73        | <b>70.18</b>  |
| 2     | Co 0238          | 74.38        | 101.54        | 68.83        | <b>85.19</b>  | 96.16        | 92.83        | 83.68        | <b>90.89</b> | 116.40       | 110.73        | 124.24        | <b>117.12</b> | 86.00        | 84.01        | 81.54        | <b>83.85</b> | 82.88        | 83.33        | 69.61        | <b>76.47</b>  |
| 3     | Co 05009         | 81.17        | 117.59        | 79.63        | <b>98.61</b>  | 86.81        | 83.48        | 77.26        | <b>82.52</b> | 101.67       | 109.58        | 119.62        | <b>110.29</b> | 79.68        | 80.66        | 77.22        | <b>79.19</b> | 46.35        | 60.46        | 50.70        | <b>55.58</b>  |
|       | <b>Mean</b>      | <b>74.01</b> | <b>102.20</b> | <b>68.96</b> | <b>85.58</b>  | <b>87.49</b> | <b>84.34</b> | <b>77.15</b> | <b>82.99</b> | <b>99.67</b> | <b>106.10</b> | <b>117.88</b> | <b>107.88</b> | <b>81.94</b> | <b>87.49</b> | <b>85.22</b> | <b>84.88</b> | <b>72.37</b> | <b>85.95</b> | <b>72.18</b> | <b>79.25</b>  |

\* while calculating mean cane yield in the zone, 1st Plant data of Faridkot, Lucknow and Muzaffarnagar, and Ratoon crop of Pant nagar were excluded due to low cane yield in the trial than the State average yield.

*Varietal Improvement Programme – AICRP (Sugarcane)  
Principal Investigator's Report (2020-21),  
North West Zone – AVT Early (Mean of 2 Plant + 1 Ratoon)*

| S. No | Entries          | Muzaffarnagar |              |              |              | Pantnagar     |              |              |               | Shahjahanpur |              |              |              | Sriganaganagar |               |              |              | Weighted Mean * | Rank |
|-------|------------------|---------------|--------------|--------------|--------------|---------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|-----------------|------|
|       |                  | I*            | II           | R            | Mean*        | I             | II           | R*           | Mean*         | I            | II           | R            | Mean         | I              | II            | R            | Mean         |                 |      |
| 1     | Co 15023         | 70.86         | 78.35        | 50.49        | <b>64.42</b> | 116.35        | 103.37       | 37.75        | <b>109.86</b> | 82.84        | 93.71        | 48.15        | <b>74.90</b> | 78.02          | 93.21         | 68.40        | <b>79.88</b> | 85.48           |      |
| 2     | Co 15024         | 66.66         | 70.25        | 41.73        | <b>55.99</b> | 119.94        | 82.53        | 34.65        | <b>101.24</b> | 77.78        | 90.12        | 38.52        | <b>68.81</b> | 80.09          | 96.30         | 80.42        | <b>85.60</b> | 82.85           |      |
| 3     | Co 15027         | 74.56         | 104.81       | 76.67        | <b>90.74</b> | 150.05        | 108.13       | 73.51        | <b>129.09</b> | 93.46        | 100.98       | 75.43        | <b>89.96</b> | 87.72          | 103.70        | 88.48        | <b>93.30</b> | 102.70          | 1    |
| 4     | CoLk 15201       | 80.61         | 100.17       | 69.51        | <b>84.84</b> | 162.92        | 101.08       | 79.27        | <b>132.00</b> | 107.41       | 102.65       | 87.78        | <b>99.28</b> | 86.45          | 100.00        | 78.33        | <b>88.26</b> | 95.69           | 2    |
| 5     | CoLk 15205       | 55.31         | 68.27        | 68.64        | <b>68.46</b> | 102.87        | 42.64        | 57.88        | <b>72.76</b>  | 83.95        | 101.01       | 79.51        | <b>88.16</b> | 99.99          | 112.96        | 58.66        | <b>90.54</b> | 80.72           |      |
| 6     | CoPb 15212       | 59.87         | 70.99        | 64.93        | <b>67.96</b> | 106.18        | 64.36        | 60.87        | <b>85.27</b>  | 89.38        | 91.27        | 75.80        | <b>85.48</b> | 87.52          | 90.86         | 66.53        | <b>81.64</b> | 85.42           |      |
|       | <b>Standards</b> |               |              |              |              |               |              |              |               |              |              |              |              |                |               |              |              |                 |      |
| 1     | CoJ 64           | 52.47         | 68.64        | 55.80        | <b>62.62</b> | 144.50        | 74.63        | 48.72        | <b>109.57</b> | 83.09        | 86.63        | 72.72        | <b>80.81</b> | 83.70          | 97.65         | 57.17        | <b>79.51</b> | 80.65           |      |
| 2     | Co 0238          | 70.74         | 84.44        | 70.74        | <b>77.59</b> | 154.07        | 79.25        | 49.01        | <b>116.66</b> | 103.83       | 106.33       | 85.80        | <b>98.65</b> | 85.15          | 107.28        | 81.16        | <b>91.20</b> | 93.78           | 3    |
| 3     | Co 05009         | 61.10         | 73.32        | 61.48        | <b>67.40</b> | 128.09        | 79.00        | 55.15        | <b>103.55</b> | 78.40        | 84.19        | 59.14        | <b>73.91</b> | 84.99          | 104.32        | 76.51        | <b>88.61</b> | 84.95           |      |
|       | <b>Mean</b>      | <b>65.80</b>  | <b>79.91</b> | <b>62.22</b> | <b>71.07</b> | <b>131.66</b> | <b>81.67</b> | <b>55.20</b> | <b>106.66</b> | <b>88.90</b> | <b>95.21</b> | <b>69.20</b> | <b>84.44</b> | <b>85.96</b>   | <b>100.70</b> | <b>72.85</b> | <b>86.50</b> |                 |      |

**Table 4.3.3. CCS (%) at harvest**

| S. No | Entries          | Faridkot     |              |              |              | Kapurthala   |              |              |              | Karnal       |              |              |              | Kota         |              |              |              | Lucknow      |              |              |              |
|-------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|       |                  | I*           | II           | R            | Mean*        | I            | II           | R            | Mean         | I            | II           | R            | Mean         | I            | II           | R            | Mean         | I*           | II           | R            | Mean*        |
| 1     | Co 15023         | 14.14        | 14.04        | 14.1         | <b>14.07</b> | 13.27        | 12.99        | 12.61        | <b>12.96</b> | 15.56        | 14.95        | 14.09        | <b>14.87</b> | 13.60        | 12.68        | 12.07        | <b>12.78</b> | 12.88        | 12.99        | 12.23        | <b>12.61</b> |
| 2     | Co 15024         | 12.07        | 11.11        | 12.27        | <b>11.69</b> | 11.95        | 11.87        | 11.45        | <b>11.76</b> | 12.51        | 13.11        | 12.54        | <b>12.72</b> | 12.56        | 12.23        | 12.12        | <b>12.30</b> | 12.45        | 12.32        | -            | <b>12.32</b> |
| 3     | Co 15027         | 12.26        | 11.88        | 10.72        | <b>11.30</b> | 11.46        | 12.36        | 11.42        | <b>11.75</b> | 12.96        | 13.56        | 12.96        | <b>13.16</b> | 13.19        | 13.67        | 12.30        | <b>13.05</b> | 12.41        | 11.51        | 11.16        | <b>11.34</b> |
| 4     | CoLk 15201       | 12.68        | 10.32        | 12.13        | <b>11.23</b> | 12.05        | 12.22        | 12.29        | <b>12.19</b> | 12.38        | 12.85        | 11.90        | <b>12.38</b> | 12.78        | 11.90        | 11.74        | <b>12.14</b> | 13.15        | 12.76        | 12.05        | <b>12.41</b> |
| 5     | CoLk 15205       | 12.60        | 11.82        | 13.45        | <b>12.64</b> | 12.31        | 12.39        | 12.61        | <b>12.44</b> | 12.67        | 12.93        | 12.98        | <b>12.86</b> | 13.01        | 12.58        | 11.95        | <b>12.51</b> | 13.16        | 12.68        | 11.57        | <b>12.13</b> |
| 6     | CoPb 15212       | 12.02        | 11.34        | 12.30        | <b>11.82</b> | 12.24        | 12.07        | 12.01        | <b>12.11</b> | 11.92        | 12.54        | 11.82        | <b>12.09</b> | 12.63        | 12.02        | 11.97        | <b>12.21</b> | 11.86        | 12.07        | 10.60        | <b>11.34</b> |
|       | <b>Standards</b> |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 1     | CoJ 64           | 13.21        | 12.68        | 13.18        | <b>12.93</b> | 12.54        | 12.16        | 12.85        | <b>12.52</b> | 12.89        | 12.95        | 13.59        | <b>13.14</b> | 12.81        | 11.77        | 11.29        | <b>11.96</b> | 12.96        | 12.47        | 12.02        | <b>12.25</b> |
| 2     | Co 0238          | 12.42        | 11.90        | 12.92        | <b>12.41</b> | 12.25        | 11.78        | 12.17        | <b>12.07</b> | 12.87        | 13.49        | 13.60        | <b>13.32</b> | 13.06        | 12.28        | 11.95        | <b>12.43</b> | 12.72        | 12.84        | 11.46        | <b>12.15</b> |
| 3     | Co 05009         | 12.65        | 12.00        | 12.39        | <b>12.20</b> | 12.02        | 12.63        | 12.23        | <b>12.29</b> | 12.35        | 13.09        | 12.99        | <b>12.81</b> | 12.94        | 11.95        | 11.24        | <b>12.04</b> | 12.81        | 11.96        | 11.59        | <b>11.78</b> |
|       | <b>Mean</b>      | <b>12.67</b> | <b>11.93</b> | <b>12.61</b> | <b>12.25</b> | <b>12.23</b> | <b>12.27</b> | <b>12.18</b> | <b>12.23</b> | <b>12.90</b> | <b>13.27</b> | <b>12.94</b> | <b>13.04</b> | <b>12.95</b> | <b>12.34</b> | <b>11.85</b> | <b>12.38</b> | <b>12.71</b> | <b>12.40</b> | <b>11.58</b> | <b>12.03</b> |

\* while calculating mean CCS % in the zone, 1st Plant data of Faridkot, Lucknow and Muzaffarnagar, and Ratoon crop of Pant nagar were excluded due to low cane yield in the trial than the State average yield.



*Varietal Improvement Programme – AICRP (Sugarcane)  
Principal Investigator's Report (2020-21),  
North West Zone – AVT Early (Mean of 2 Plant + 1 Ratoon)*

| S. No | Entries          | Muzaffarnagar |              |              |              | Pantnagar    |              |              |              | Shahjahanpur |              |              |              | Sriganganagar |              |              |              | Weighted Mean* | Rank     |
|-------|------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|----------------|----------|
|       |                  | I*            | II           | R            | Mean*        | I            | II           | R*           | Mean*        | I            | II           | R            | Mean         | I             | II           | R            | Mean         |                |          |
| 1     | Co 15023         | 13.11         | 12.91        | 13.22        | <b>13.07</b> | 13.28        | 13.04        | 12.55        | <b>13.16</b> | 12.83        | 12.88        | 13.76        | <b>13.16</b> | 11.78         | 10.68        | 11.80        | <b>11.42</b> | <b>13.10</b>   | <b>1</b> |
| 2     | Co 15024         | 12.52         | 12.24        | 12.26        | <b>12.25</b> | 12.14        | 11.82        | 12.16        | <b>11.98</b> | 12.67        | 11.89        | 12.29        | <b>12.28</b> | 11.19         | 11.43        | 11.12        | <b>11.25</b> | <b>12.05</b>   |          |
| 3     | Co 15027         | 12.02         | 12.36        | 12.48        | <b>12.42</b> | 11.71        | 12.21        | 12.49        | <b>11.96</b> | 12.34        | 11.23        | 11.57        | <b>11.71</b> | 10.72         | 10.73        | 12.13        | <b>11.19</b> | <b>12.03</b>   |          |
| 4     | CoLk 15201       | 12.41         | 12.30        | 12.43        | <b>12.37</b> | 11.90        | 11.57        | 11.54        | <b>11.74</b> | 11.76        | 11.72        | 12.45        | <b>11.98</b> | 10.74         | 10.26        | 11.92        | <b>10.97</b> | <b>11.93</b>   |          |
| 5     | CoLk 15205       | 12.20         | 12.09        | 12.63        | <b>12.36</b> | 12.40        | 12.35        | 12.68        | <b>12.38</b> | 12.43        | 12.49        | 13.41        | <b>12.78</b> | 10.36         | 10.64        | 12.23        | <b>11.08</b> | <b>12.35</b>   |          |
| 6     | CoPb 15212       | 12.02         | 12.53        | 12.89        | <b>12.71</b> | 12.59        | 12.23        | 12.42        | <b>12.41</b> | 11.27        | 11.52        | 11.74        | <b>11.51</b> | 12.19         | 10.82        | 12.15        | <b>11.72</b> | <b>11.98</b>   |          |
|       | <b>Standards</b> |               |              |              |              |              |              |              |              |              |              |              |              |               |              |              |              |                |          |
| 1     | CoJ 64           | 12.45         | 13.16        | 13.23        | <b>13.20</b> | 13.04        | 12.66        | 12.53        | <b>12.85</b> | 11.82        | 11.64        | 12.50        | <b>11.99</b> | 11.36         | 11.15        | 13.12        | <b>11.88</b> | <b>12.47</b>   | <b>3</b> |
| 2     | Co 0238          | 12.58         | 13.04        | 12.91        | <b>12.98</b> | 12.62        | 12.40        | 12.61        | <b>12.51</b> | 12.53        | 12.06        | 13.16        | <b>12.58</b> | 11.36         | 11.02        | 13.40        | <b>11.93</b> | <b>12.48</b>   | <b>2</b> |
| 3     | Co 05009         | 12.55         | 12.29        | 12.21        | <b>12.25</b> | 12.77        | 12.11        | 12.41        | <b>12.44</b> | 12.57        | 12.30        | 12.68        | <b>12.52</b> | 10.32         | 10.59        | 12.49        | <b>11.13</b> | <b>12.16</b>   |          |
|       | <b>Mean</b>      | <b>12.13</b>  | <b>12.55</b> | <b>12.70</b> | <b>12.62</b> | <b>12.50</b> | <b>12.26</b> | <b>12.38</b> | <b>12.38</b> | <b>12.25</b> | <b>11.97</b> | <b>12.62</b> | <b>12.28</b> | <b>11.11</b>  | <b>10.81</b> | <b>12.26</b> | <b>11.39</b> |                |          |

**Table 4.3.4. Sucrose (%) at harvest - Pooled data of two plant and one ratoon crops**

| S. No | Entries          | Faridkot     |              |              |              | Kapurthala   |              |              |              | Karnal       |              |              |              | Kota         |              |              |              | Lucknow      |              |              |              |
|-------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|       |                  | I*           | II           | R            | Mean*        | I            | II           | R            | Mean         | I            | II           | R            | Mean         | I            | II           | R            | Mean         | I*           | II           | R            | Mean*        |
| 1     | Co 15023         | 20.01        | 19.86        | 19.84        | 19.85        | 18.89        | 18.86        | 17.85        | 18.53        | 21.88        | 21.15        | 20.09        | 21.04        | 19.62        | 18.38        | 17.56        | 18.52        | 18.45        | 19.02        | 17.58        | 18.30        |
| 2     | Co 15024         | 17.24        | 15.77        | 17.46        | 16.62        | 17.08        | 17.02        | 16.35        | 16.82        | 18.06        | 18.75        | 18.02        | 18.28        | 18.21        | 17.76        | 17.63        | 17.87        | 17.89        | 17.95        | -            | 17.95        |
| 3     | Co 15027         | 17.46        | 16.80        | 15.21        | 16.01        | 16.42        | 17.79        | 16.28        | 16.83        | 18.56        | 19.29        | 18.49        | 18.78        | 19.07        | 19.72        | 17.87        | 18.89        | 17.74        | 16.76        | 16.01        | 16.39        |
| 4     | CoLk 15201       | 18.12        | 14.93        | 17.27        | 16.10        | 17.17        | 17.60        | 17.60        | 17.46        | 18.02        | 18.53        | 17.30        | 17.95        | 18.52        | 17.32        | 17.11        | 17.65        | 18.83        | 18.48        | 17.23        | 17.86        |
| 5     | CoLk 15205       | 18.18        | 17.00        | 19.13        | 18.07        | 17.62        | 17.76        | 18.08        | 17.82        | 18.19        | 18.54        | 18.67        | 18.47        | 18.83        | 18.24        | 17.38        | 18.15        | 18.87        | 18.40        | 16.66        | 17.53        |
| 6     | CoPb 15212       | 17.16        | 16.24        | 17.43        | 16.84        | 17.55        | 17.41        | 17.11        | 17.36        | 17.21        | 17.88        | 17.10        | 17.40        | 18.31        | 17.49        | 17.42        | 17.74        | 17.20        | 17.68        | 15.26        | 16.47        |
|       | <b>Standards</b> |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| 1     | CoJ 64           | 18.82        | 17.98        | 18.65        | 18.32        | 17.91        | 17.61        | 18.27        | 17.93        | 18.42        | 18.45        | 19.29        | 18.72        | 18.55        | 17.14        | 16.49        | 17.39        | 18.54        | 18.08        | 17.24        | 17.66        |
| 2     | Co 0238          | 17.84        | 17.02        | 18.29        | 17.66        | 17.54        | 16.76        | 17.33        | 17.21        | 18.54        | 19.31        | 19.29        | 19.05        | 18.90        | 17.83        | 17.38        | 18.04        | 18.26        | 18.60        | 16.69        | 17.65        |
| 3     | Co 05009         | 18.06        | 17.12        | 17.55        | 17.34        | 17.20        | 18.44        | 17.45        | 17.70        | 17.85        | 18.62        | 18.42        | 18.30        | 18.73        | 17.38        | 16.42        | 17.51        | 18.35        | 17.43        | 16.59        | 17.01        |
|       | <b>Mean</b>      | <b>18.10</b> | <b>17.01</b> | <b>17.87</b> | <b>17.42</b> | <b>17.49</b> | <b>17.69</b> | <b>17.37</b> | <b>17.52</b> | <b>18.52</b> | <b>18.95</b> | <b>18.52</b> | <b>18.66</b> | <b>18.74</b> | <b>17.92</b> | <b>17.25</b> | <b>17.97</b> | <b>18.24</b> | <b>18.04</b> | <b>16.66</b> | <b>17.42</b> |

\* while calculating mean sucrose % in the zone, 1st Plant data of Faridkot, Lucknow and Muzaffarnagar, and Ratoon crop of Pant nagar were excluded due to low cane yield in the trial than the State average yield.

*Varietal Improvement Programme – AICRP (Sugarcane)  
Principal Investigator's Report (2020-21),  
North West Zone – AVT Early (Mean of 2 Plant + 1 Ratoon)*

| S. No | Entries          | Muzaffarnagar |              |              |              | Pantnagar    |              |              |              | Shahjahanpur |              |              |              | Sriganganagar |              |              |              | Weighted Mean* | Rank     |
|-------|------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|----------------|----------|
|       |                  | I*            | II           | R            | Mean*        | I            | II           | R            | Mean*        | I            | II           | R            | Mean         | I             | II           | R            | Mean         |                |          |
| 1     | Co 15023         | 19.02         | 18.84        | 19.11        | <b>18.98</b> | 19.51        | 18.96        | 18.21        | <b>19.24</b> | 18.58        | 18.65        | 19.81        | <b>19.01</b> | 17.52         | 17.72        | 17.06        | <b>17.43</b> | <b>18.97</b>   | <b>1</b> |
| 2     | Co 15024         | 18.20         | 17.71        | 18.04        | <b>17.88</b> | 17.76        | 17.30        | 17.63        | <b>17.53</b> | 18.37        | 17.35        | 17.75        | <b>17.82</b> | 16.48         | 19.06        | 16.30        | <b>17.28</b> | <b>17.55</b>   |          |
| 3     | Co 15027         | 17.45         | 17.97        | 18.19        | <b>18.08</b> | 17.10        | 17.76        | 18.08        | <b>17.43</b> | 17.92        | 16.49        | 16.78        | <b>17.06</b> | 16.46         | 18.47        | 17.59        | <b>17.51</b> | <b>17.52</b>   |          |
| 4     | CoLk 15201       | 18.01         | 17.87        | 18.06        | <b>17.97</b> | 17.33        | 16.87        | 16.85        | <b>17.10</b> | 17.12        | 17.11        | 17.97        | <b>17.40</b> | 16.03         | 18.03        | 17.25        | <b>17.10</b> | <b>17.42</b>   |          |
| 5     | CoLk 15205       | 17.68         | 17.53        | 18.35        | <b>17.94</b> | 18.07        | 17.92        | 18.37        | <b>18.00</b> | 18.04        | 18.14        | 19.32        | <b>18.50</b> | 15.93         | 17.37        | 17.78        | <b>17.03</b> | <b>17.95</b>   |          |
| 6     | CoPb 15212       | 17.40         | 18.20        | 18.74        | <b>18.47</b> | 18.28        | 17.77        | 18.00        | <b>18.03</b> | 16.51        | 16.83        | 17.01        | <b>16.78</b> | 17.76         | 17.67        | 17.55        | <b>17.66</b> | <b>17.41</b>   |          |
|       | <b>Standards</b> |               |              |              |              |              |              |              |              |              |              |              |              |               |              |              |              |                |          |
| 1     | CoJ 64           | 18.08         | 19.09        | 19.09        | <b>19.09</b> | 18.96        | 18.31        | 18.15        | <b>18.64</b> | 17.20        | 17.01        | 18.04        | <b>17.42</b> | 16.73         | 17.51        | 18.30        | <b>17.51</b> | <b>18.01</b>   | <b>2</b> |
| 2     | Co 0238          | 18.28         | 18.90        | 18.74        | <b>18.82</b> | 18.30        | 18.00        | 18.17        | <b>18.15</b> | 18.18        | 17.56        | 18.92        | <b>18.22</b> | 16.73         | 16.63        | 18.41        | <b>17.26</b> | <b>17.99</b>   | <b>3</b> |
| 3     | Co 05009         | 18.22         | 17.85        | 17.72        | <b>17.79</b> | 18.59        | 17.68        | 18.00        | <b>18.14</b> | 18.22        | 17.88        | 18.30        | <b>18.13</b> | 15.89         | 18.09        | 17.45        | <b>17.14</b> | <b>17.69</b>   |          |
|       | <b>Mean</b>      | <b>18.04</b>  | <b>18.22</b> | <b>18.45</b> | <b>18.33</b> | <b>18.21</b> | <b>17.84</b> | <b>17.94</b> | <b>18.03</b> | <b>17.79</b> | <b>17.45</b> | <b>18.21</b> | <b>17.82</b> | <b>16.61</b>  | <b>17.84</b> | <b>17.52</b> | <b>17.32</b> |                |          |

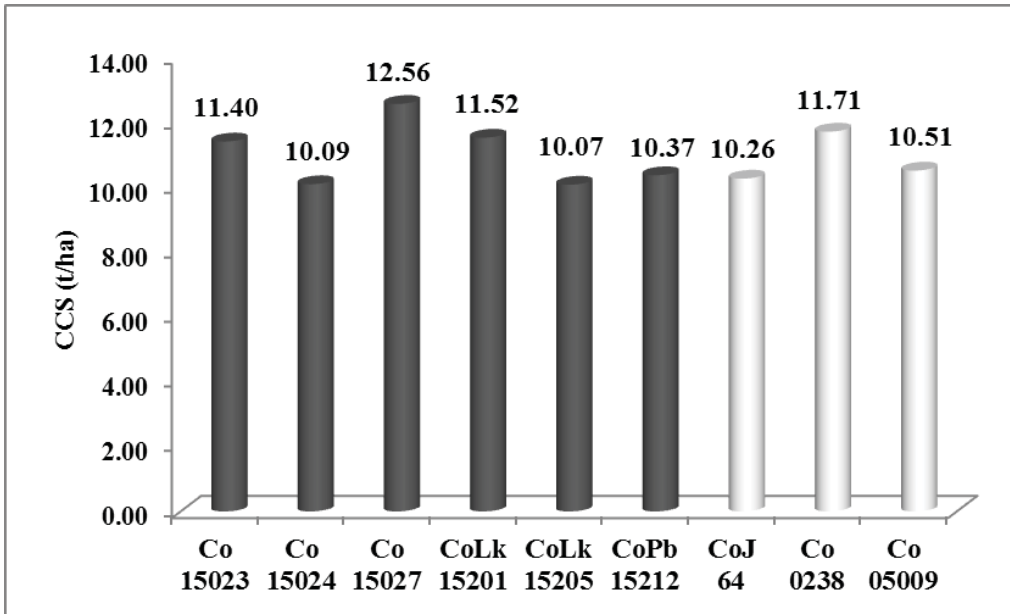


Fig: 4.3.1. CCS yield at harvest (t/ha)

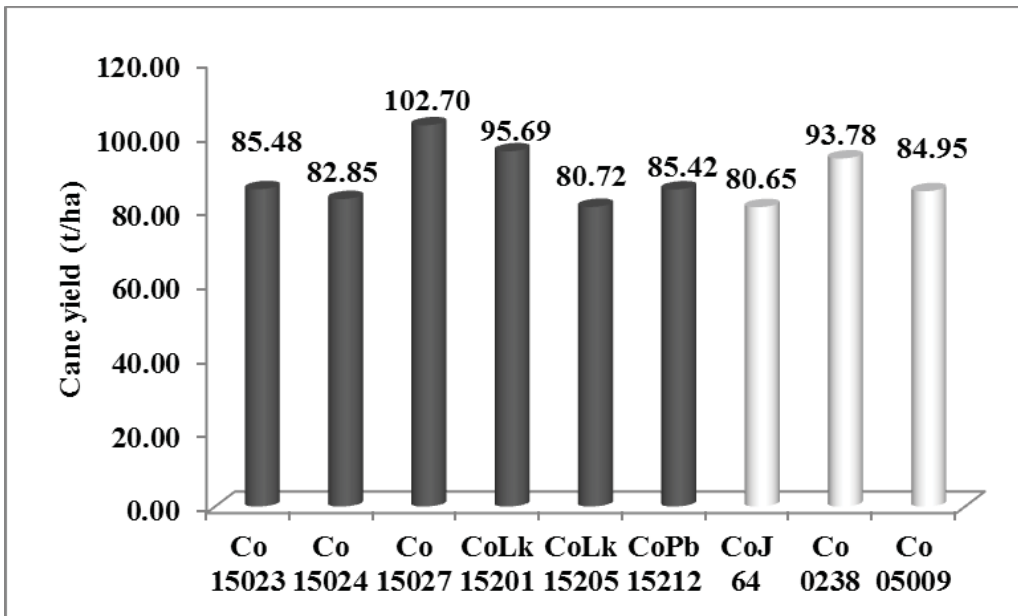


Fig: 4.3.2. Cane yield at harvest (t/ha)

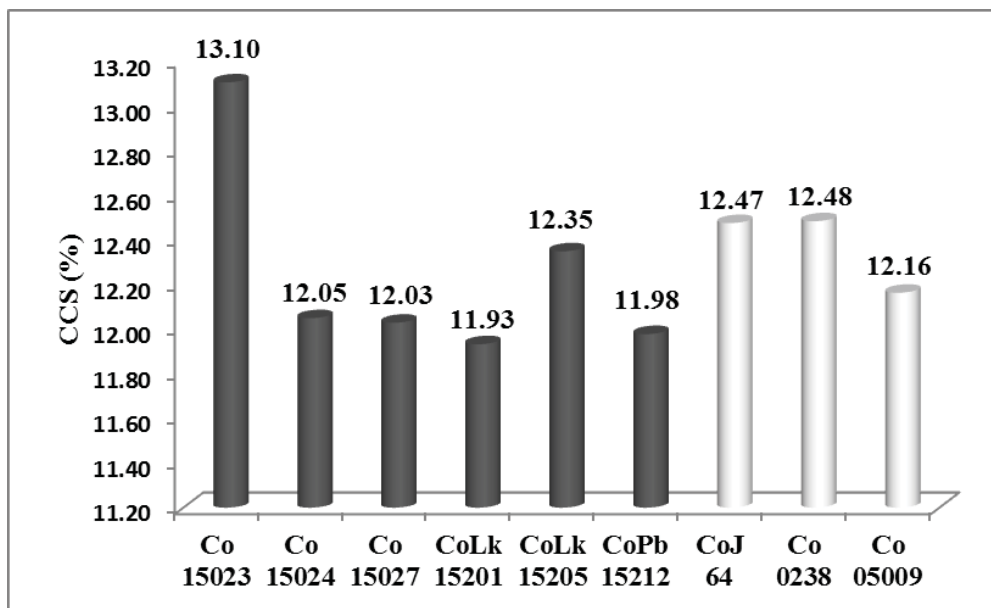


Fig: 4.3.3. CCS (%) at harvest

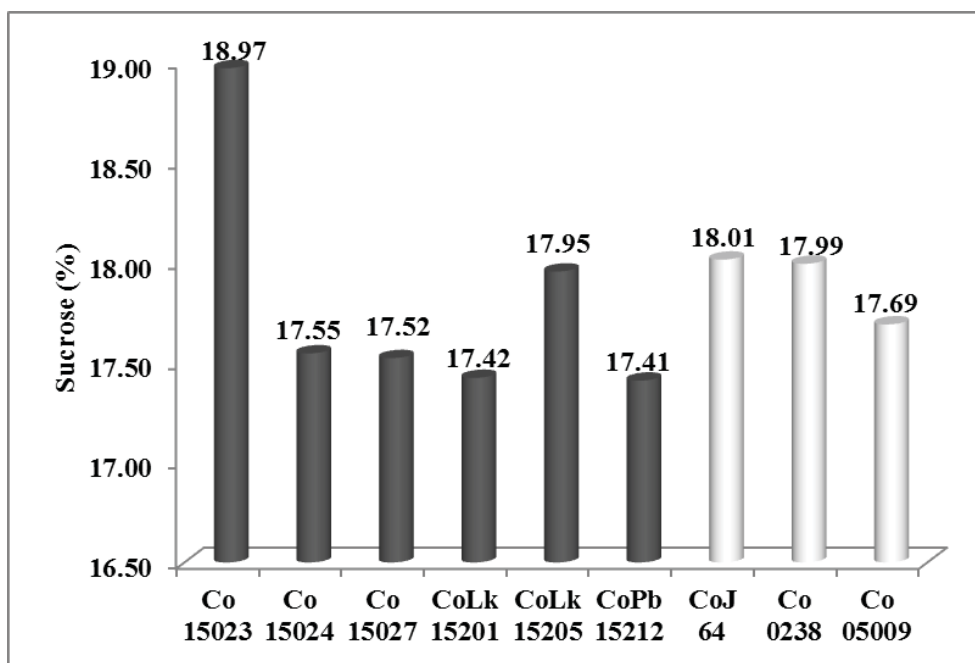


Fig: 4.3.4. Sucrose (%) at harvest

#### 4.4. ADVANCED VARIETAL TRIAL (EARLY) – I PLANT

|               |   |
|---------------|---|
| Centres (10)  | Faridkot, Kapurthala, Karnal, Kota, Lucknow, Muzaffarnagar, Pantnagar, Shahjahanpur, Sriganaganagar and Uchani. |
| Entries (6)   | Co 15025, Co 16029, CoLk 14201, CoLk 16201, CoLk 16202 and CoPb 16181   |
| Standards (3) | CoJ 64, Co 0238 and Co 05009  |
| Design        | RBD   |
| Replications  | Three   |
| Plot size     | Gross : 8 Rows x 6 m x 0.9 m<br>Net : 6 Rows x 5 m x 0.9 m  |
| Bud rate      | 12 buds per metre   |
| Planting time | February / March, 2020  |
| Crop duration | 10 months   |

#### Results of the previous year:

In the IVT (Early), Co 0238 was identified as the best standard for CCS yield with zonal mean of 11.97 t/ha. Only one entry viz. CoPb 16211 (12.28 t/ha) recorded numerically higher CCS yield than the best standard and ranked first in the zone. However, its improvement over Co 0238 for CCS yield was less than 10 %. Co 0238 was also the best standard for cane yield with zonal mean of 97.37 t/ha. Three test entries namely, CoPant 16222 (110.43 t/ha), CoPb 16211 (104.80 t/ha) and CoPant 16221 (98.56 t/ha) recorded numerically higher cane yield than the best standard. The percent improvement in cane yield over the best standard was 13.38 for the test entry CoPant 16222. For juice quality traits, Co 0238 was the best among the standards with CCS % of 12.28 and sucrose % of 17.79. No test entry recorded higher CCS % or sucrose % than the best standard although Co 16029 ranked second place in the zone for sucrose % (17.72) and third place in the zone for CCS % (12.20).

#### Results of the current year:

Six test entries and three standards (CoJ 64, Co 0238, Co 05009) were evaluated in RBD design with three replications in ten locations across the North West Zone are presented in tables 4.4.1. to 4.4.20. Co 0238 was the best standard for CCS yield and cane yield with 12.30 t/ha and 98.23 t/ha respectively in the zone. None of the test entries was found to be superior to best standard Co 0238 for CCS yield and cane yield. Among the test entries, CoLk 14201 (11.54 t/ha) ranked first for CCS yield. Co 0238 (98.23 t/ha) was the best standard for cane yield and CoLk 16201 (94.60 t/ha) ranked first among the test entries for cane yield. Co 0238 was the best standard for both CCS % and sucrose % with 12.51 % and 18.03 % respectively in the zone. Among the test entries, CoLk 14201 (12.47 %) was top ranked for CCS % and significantly superior over the best standard (CoJ 64) at Faridkot. CoLk 14201 (18.01) was top ranked entry for CCS % and found to be on par with the best standard Co 0238 (18.03 %). None of the test entries was showed >5 % improvement over the best standard Co 0238 for both CCS % and sucrose % in the zone across locations.

**Qualifying entries:** None of the test entry was found as qualifying entry in the trial.

**Table 4.4.1. CCS yield at harvest (t/ha)**

| S. No. | Clone                               | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar  | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         | Overall rank |
|--------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|-------------|---------------|-----------------|--------------|--------------|--------------|
| 1      | Co 15025                            | 9.92         | 9.98         | 18.69        | 10.82        | 7.68         | 9.43           | 8.50        | 10.71         | -               | 10.97        | <b>10.74</b> |              |
| 2      | Co 16029                            | 11.10        | 9.25         | 16.11        | 11.14        | 8.54         | 10.03          | 8.61        | 12.54         | 11.47           | 8.39         | <b>10.72</b> |              |
| 3      | CoLk 14201                          | 11.09        | 10.43        | -            | 10.34        | 13.42*       | 11.03          | 9.35        | 13.78         | 12.56*          | 11.83        | <b>11.54</b> | <b>2</b>     |
| 4      | CoLk 16201                          | 9.76         | 10.67        | 13.13        | 10.19        | 12.34        | 11.15*         | 12.13       | 10.75         | 10.34           | 11.10        | <b>11.16</b> |              |
| 5      | CoLk 16202                          | 11.90        | 9.81         | 13.16        | 11.79        | 13.46*       | 10.77          | 7.98        | 11.76         | 11.17           | 12.69        | <b>11.45</b> | <b>3</b>     |
| 6      | CoPb 16181                          | 12.47        | 11.47*       | 9.13         | 9.45         | 10.55        | 10.53          | 8.17        | 11.13         | 10.37           | 10.90        | <b>10.42</b> |              |
|        | <b>Standards</b>                    |              |              |              |              |              |                |             |               |                 |              |              |              |
| 1      | CoJ 64                              | 11.55        | 9.13         | 11.53        | 8.30         | 8.13         | 8.42           | 10.05       | 10.38         | 10.97           | 9.90         | <b>9.84</b>  |              |
| 2      | Co 0238                             | 10.75        | 10.58        | 17.39        | 10.95        | 11.13        | 10.43          | 13.46       | 14.24         | 11.32           | 12.75        | <b>12.30</b> | <b>1</b>     |
| 3      | Co 05009                            | 12.13        | 9.72         | 15.47        | 9.31         | 7.44         | 9.05           | 10.15       | 10.92         | 9.13            | 10.61        | <b>10.39</b> |              |
|        | <b>GM</b>                           | <b>11.23</b> | <b>10.11</b> | <b>14.33</b> | <b>10.25</b> | <b>10.30</b> | <b>10.09</b>   | <b>9.82</b> | <b>11.80</b>  | <b>10.92</b>    | <b>11.02</b> | <b>10.95</b> |              |
|        | SE(m)                               | 0.54         | 0.28         | 0.75         | 0.76         | 0.65         | 0.30           | 0.58        | 0.29          | 0.37            | 0.46         |              |              |
|        | CD                                  | 1.62         | 0.84         | 2.34         | 1.84         | 1.39         | 0.64           | 1.76        | 0.88          | 1.08            | 1.39         |              |              |
|        | CV                                  | 8.39         | 4.82         | 9.48         | 12.87        | 7.77         | 9.83           | 10.23       | 4.29          | 4.75            | 7.24         |              |              |
|        | Qualifying entries at each location |              |              |              |              |              |                |             |               |                 |              |              |              |
| 1      | -                                   | -            | -            | -            | -            | CoLk 16202   | -              | -           | -             | CoLk 14201      | -            | -            | -            |
| 2      | -                                   | -            | -            | -            | -            | CoLk 14201   | -              | -           | -             | -               | -            | -            | -            |
| 3      | -                                   | -            | -            | -            | -            | CoLk 16201   | -              | -           | -             | -               | -            | -            | -            |

**No. of locations where an entry recorded >10% improvement:** CoLk 14201 (2), CoLk 16201 (1) and CoLk 16202 (1)

**Performance across the locations:**

Co 0238 (12.30 t/ha) was the best standard for commercial cane sugar yield (t/ha). None of the test entries performed better than the standard Co 0238 in the zone. Among the test entries, CoLk 14201 (11.54 t/ha) ranked first among the entries and recorded >10 % improvement and significantly superior over the best standard (Co 0238) at Lucknow and Sriganaganagar. CoLk 16202 (11.45 t/ha) ranked second and >10 % improvement with significantly superior over best standard (Co 0238) at Lucknow. None of the test entries recorded >10% improvement over the best standard Co 0238 in the zone across locations.

Table 4.4.2. Cane Yield at harvest (t/ha)

| S. No. | Clone                               | Faridkot     | Kapur thala  | Karnal        | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         | Overall rank |
|--------|-------------------------------------|--------------|--------------|---------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|--------------|
| 1      | Co 15025                            | 84.88        | 76.11        | 142.37        | 96.82        | 64.80        | 79.26          | 70.06        | 86.30         | -               | 83.76        | 87.15        |              |
| 2      | Co 16029                            | 94.75        | 80.17        | 126.86        | 84.85        | 70.29        | 85.06          | 70.84        | 99.63         | 92.59           | 69.54        | 87.46        |              |
| 3      | CoLk 14201                          | 86.42        | 84.54        | -             | 88.12        | 105.48*      | 88.15          | 73.15        | 112.47        | 102.47*         | 92.10        | 92.54        |              |
| 4      | CoLk 16201                          | 84.57        | 88.50        | 111.31        | 85.73        | 99.85*       | 93.70*         | 100.25       | 93.58         | 96.30           | 92.20        | 94.60        | 2            |
| 5      | CoLk 16202                          | 103.70       | 82.72        | 108.49        | 90.72        | 102.21*      | 90.36*         | 65.49        | 94.81         | 89.51           | 102.31       | 93.03        | 3            |
| 6      | CoPb 16181                          | 100.93       | 96.57*       | 76.13         | 87.09        | 84.53        | 91.23*         | 67.61        | 97.41         | 100.12          | 91.49        | 89.31        |              |
|        | <b>Standards</b>                    |              |              |               |              |              |                |              |               |                 |              |              |              |
| 1      | CoJ 64                              | 93.52        | 75.12        | 92.51         | 70.94        | 64.82        | 67.41          | 79.19        | 84.81         | 93.33           | 78.18        | 79.98        |              |
| 2      | Co 0238                             | 89.20        | 87.62        | 136.19        | 89.76        | 81.40        | 84.07          | 105.96       | 110.99        | 95.68           | 101.41       | 98.23        | 1            |
| 3      | Co 05009                            | 100.31       | 76.97        | 121.14        | 79.83        | 59.37        | 77.16          | 80.64        | 85.93         | 83.95           | 86.98        | 85.23        |              |
|        | <b>GM</b>                           | <b>93.14</b> | <b>83.15</b> | <b>114.38</b> | <b>85.98</b> | <b>81.42</b> | <b>84.04</b>   | <b>79.24</b> | <b>96.21</b>  | <b>94.24</b>    | <b>88.66</b> | <b>89.73</b> |              |
|        | SE(m)                               | 4.32         | 2.03         | 5.34          | 5.92         | 3.78         | 2.48           | 4.23         | 1.88          | 2.25            | 3.28         |              |              |
|        | CD                                  | 12.82        | 6.09         | 16.63         | 14.32        | 8.01         | 5.26           | 12.80        | 5.65          | 6.51            | 9.92         |              |              |
|        | CV                                  | 8.01         | 4.24         | 8.38          | 11.93        | 5.68         | 9.77           | 9.25         | 3.39          | 10.75           | 6.41         |              |              |
|        | Qualifying entries at each location |              |              |               |              |              |                |              |               |                 |              |              |              |
|        | 1                                   | -            | CoPb 16181   | -             | -            | CoLk 14201   | CoLk 16201     | -            | -             | -               | -            | -            |              |
|        | 2                                   | -            | -            | -             | -            | CoLk 16202   | -              | -            | -             | -               | -            | -            |              |
|        | 3                                   | -            | -            | -             | -            | CoLk 16201   | -              | -            | -             | -               | -            | -            |              |

No. of locations where an entry recorded >10% improvement: CoLk 16201 (2), CoLk 14201 (1), CoLk 16202 (1) and CoPb 16181 (1)

**Performance across the locations:**

Co 0238 (98.23 t/ha) was the best standard for cane yield in the zone. None of the test entries performed better than the standard Co 0238 in the zone across locations. Among the test entries, CoLk 16201 (94.60 t/ha) ranked first and >10 % improvement and significantly superior over the best standard (Co 0238) at Lucknow and Muzaffarnagar. CoLk 16202 (93.03 t/ha) ranked second and significantly superior over the best standard (Co 0238) at Lucknow and Muzaffarnagar. None of the test entries was showed >10 % improvement over the best standard Co 0238 for cane yield in the zone across locations.



**Table 4.4.3. CCS (%) at harvest**

| S. No. | Clone                               | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchami       | Mean         | Overall rank |
|--------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|--------------|
| 1      | Co 15025                            | 11.70        | 13.12        | 13.13        | 11.16        | 11.83        | 11.84          | 12.14        | 12.41         | -               | 13.09        | 12.27        |              |
| 2      | Co 16029                            | 11.71        | 11.54        | 12.70        | 13.11*       | 12.14        | 11.78          | 12.14        | 12.58         | 12.38           | 12.04        | 12.21        |              |
| 3      | CoLk 14201                          | 12.83*       | 12.32        | -            | 11.72        | 12.72        | 12.51          | 12.76        | 12.26         | 12.26           | 12.85        | 12.47        | 2            |
| 4      | CoLk 16201                          | 11.54        | 12.05        | 11.83        | 11.90        | 12.36        | 11.90          | 12.06        | 11.49         | 10.74           | 12.03        | 11.79        |              |
| 5      | CoLk 16202                          | 11.49        | 11.87        | 12.13        | 13.01*       | 13.18        | 11.91          | 12.19        | 12.42         | 12.48           | 12.39        | 12.31        | 3            |
| 6      | CoPb 16181                          | 12.35        | 11.90        | 12.00        | 10.86        | 12.47        | 11.53          | 12.10        | 11.44         | 10.35           | 11.91        | 11.69        |              |
|        | <b>Standards</b>                    |              |              |              |              |              |                |              |               |                 |              |              |              |
| 1      | CoJ 64                              | 12.35        | 12.16        | 12.46        | 11.69        | 12.54        | 12.50          | 12.69        | 12.25         | 11.75           | 12.67        | 12.31        | 3            |
| 2      | Co 0238                             | 12.05        | 12.08        | 12.77        | 12.20        | 13.66        | 12.42          | 12.70        | 12.83         | 11.83           | 12.58        | 12.51        | 1            |
| 3      | Co 05009                            | 12.10        | 12.61        | 12.75        | 11.64        | 12.53        | 11.72          | 12.59        | 12.72         | 10.87           | 12.19        | 12.17        |              |
|        | <b>GM</b>                           | <b>12.01</b> | <b>12.18</b> | <b>12.47</b> | <b>11.92</b> | <b>12.60</b> | <b>12.01</b>   | <b>12.37</b> | <b>12.26</b>  | <b>11.58</b>    | <b>12.42</b> | <b>12.19</b> |              |
|        | SE(m)                               | 0.12         | 0.18         | 0.20         | 0.14         | 0.46         | 0.28           | 0.11         | 0.26          | 0.30            | 0.22         |              |              |
|        | CD                                  | 0.35         | 0.55         | 0.62         | 0.34         | 0.97         | 0.58           | 0.34         | 0.77          | 0.88            | 0.66         |              |              |
|        | CV                                  | 1.68         | 2.79         | 2.78         | 2.04         | 4.46         | 2.81           | 1.59         | 3.63          | 3.98            | 3.03         |              |              |
|        | Qualifying entries at each location |              |              |              |              |              |                |              |               |                 |              |              |              |
|        | 1                                   | -            | -            | -            | Co 16029     | -            | -              | -            | -             | CoLk 16202      | -            | -            |              |
|        | 2                                   | -            | -            | -            | CoLk 16202   | -            | -              | -            | -             | -               | -            | -            |              |
|        | 3                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            | -            |              |

**No. of locations where an entry recorded >5% improvement: CoLk 16202 (2) and Co 16029 (1)**

**Performance across the locations:**

Co 0238 (12.51 %) was the best standard for CCS % in the zone. None of the test entries performed better than the standard Co 0238 in the zone. Among the test entries, CoLk 14201 (12.47 %) was top ranked entry and was significantly superior over the best standard (CoJ 64) at Faridkot. CoLk 16202 (12.31%) ranked second and recorded >10 % improvement and significantly superior over the best standard (Co 0238) at Kota and also recorded >10 % improvement over best standard Co 0238 at Sriganaganagar. None of the test entries recorded >5 % improvement over the best standard Co 0238 in the zone across locations.

**Table 4.4.4. Sucrose (%) at harvest**

| S. No.                              | Clone      | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         | Overall rank |
|-------------------------------------|------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|--------------|
| 1                                   | Co 15025   | 16.66        | 18.71        | 18.73        | 16.32        | 17.17        | 17.28          | 17.57        | 18.05         | -               | 18.51        | <b>17.67</b> |              |
| 2                                   | Co 16029   | 16.77        | 16.67        | 18.15        | 18.97*       | 17.49        | 17.15          | 17.62        | 18.26         | 17.76           | 17.23        | <b>17.61</b> |              |
| 3                                   | CoLk 14201 | 18.32*       | 17.64        | -            | 17.08        | 18.30        | 18.15          | 18.44        | 17.85         | 17.92*          | 18.35        | <b>18.01</b> | <b>2</b>     |
| 4                                   | CoLk 16201 | 16.45        | 17.03        | 17.01        | 17.32        | 17.85        | 17.19          | 17.49        | 16.81         | 15.26           | 17.18        | <b>16.96</b> |              |
| 5                                   | CoLk 16202 | 16.51        | 17.22        | 17.55        | 18.83*       | 18.97        | 17.35          | 17.64        | 18.04         | 17.92*          | 17.59        | <b>17.76</b> | <b>3</b>     |
| 6                                   | CoPb 16181 | 17.61        | 17.25        | 17.50        | 15.91        | 18.02        | 16.81          | 17.55        | 16.71         | 15.34           | 17.08        | <b>16.98</b> |              |
| <b>Standards</b>                    |            |              |              |              |              |              |                |              |               |                 |              |              |              |
| 1                                   | CoJ 64     | 17.60        | 17.50        | 17.85        | 17.04        | 18.10        | 18.20          | 18.29        | 17.84         | 16.88           | 18.10        | <b>17.74</b> |              |
| 2                                   | Co 0238    | 17.30        | 17.19        | 18.35        | 17.73        | 19.59        | 18.03          | 18.32        | 18.59         | 17.03           | 18.18        | <b>18.03</b> | <b>1</b>     |
| 3                                   | Co 05009   | 17.27        | 18.00        | 18.16        | 16.97        | 18.03        | 17.06          | 18.23        | 18.42         | 15.63           | 17.43        | <b>17.52</b> |              |
|                                     | <b>GM</b>  | <b>17.17</b> | <b>17.47</b> | <b>17.91</b> | <b>17.35</b> | <b>18.17</b> | <b>17.47</b>   | <b>17.90</b> | <b>17.84</b>  | <b>16.72</b>    | <b>17.74</b> | <b>17.59</b> |              |
|                                     | SE(m)      | 0.16         | 0.35         | 0.24         | 0.19         | 0.59         | 0.38           | 0.15         | 0.34          | 0.29            | 0.24         |              |              |
|                                     | CD         | 0.47         | 1.05         | 0.74         | 0.46         | 1.26         | 0.80           | 0.45         | 1.02          | 0.83            | 0.72         |              |              |
|                                     | CV         | 1.60         | 3.49         | 2.32         | 1.90         | 3.99         | 2.66           | 1.42         | 3.30          | 2.60            | 2.32         |              |              |
| Qualifying entries at each location |            |              |              |              |              |              |                |              |               |                 |              |              |              |
|                                     | 1          | -            | -            | -            | Co 16029     | -            | -              | -            | -             | CoLk 14201      | -            | -            | -            |
|                                     | 2          | -            | -            | -            | CoLk 16202   | -            | -              | -            | -             | CoLk 16202      | -            | -            | -            |
|                                     | 3          | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            | -            | -            |

**No. of locations where an entry recorded >5% improvement:** CoLk 16202 (2), CoLk 14201 (1) and Co 16029 (1)

**Performance across the locations:**

Co 0238 (18.03 %) was the best standard for sucrose % in the zone. Among test entries, CoLk 14201 (18.01 %) was top ranked entry and recorded >10 % improvement and significantly superior over the best standard (Co 0238) at Sriganaganagar. CoLk 16202 (17.76 %) recorded >10 % improvement and significantly superior over the best standard (Co 0238) at Kota and Sriganaganagar. Co 16029 recorded >10 % improvement and significantly superior over the best standard (Co 0238) at Kota. None of the test entries was showed >5 % improvement over the best standard Co 0238 in the zone across locations.

Table 4.4.5. Brix (%) at harvest

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15025         | 18.23        | 20.57        | 20.60        | 18.90        | 19.59        | 19.89          | 19.90        | 20.67         | -               | 19.93        | 19.81        |
| 2      | Co 16029         | 18.60        | 18.83        | 20.05        | 21.47        | 19.65        | 19.66          | 20.10        | 20.84         | 19.75           | 19.07        | 19.80        |
| 3      | CoLk 14201       | 20.17        | 19.53        | -            | 19.63        | 20.48        | 20.66          | 20.87        | 20.49         | 20.73           | 20.23        | 20.31        |
| 4      | CoLk 16201       | 18.07        | 18.33        | 19.02        | 19.87        | 20.15        | 19.43          | 19.90        | 19.51         | 16.63           | 18.93        | 18.98        |
| 5      | CoLk 16202       | 18.43        | 19.63        | 19.88        | 21.33        | 21.26        | 19.93          | 20.00        | 20.62         | 19.97           | 19.13        | 20.02        |
| 6      | CoPb 16181       | 19.33        | 19.63        | 20.16        | 18.50        | 20.39        | 19.33          | 19.97        | 19.31         | 18.23           | 19.03        | 19.39        |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64           | 19.33        | 19.63        | 19.82        | 19.60        | 20.42        | 20.92          | 20.57        | 20.51         | 18.83           | 20.00        | 19.96        |
| 2      | Co 0238          | 19.30        | 18.80        | 20.49        | 20.27        | 21.80        | 20.60          | 20.63        | 21.14         | 19.10           | 20.57        | 20.27        |
| 3      | Co 05009         | 19.03        | 19.80        | 19.90        | 19.53        | 20.18        | 19.56          | 20.67        | 20.94         | 17.47           | 19.27        | 19.64        |
|        | <b>GM</b>        | <b>18.94</b> | <b>19.42</b> | <b>19.99</b> | <b>19.90</b> | <b>20.44</b> | <b>20.00</b>   | <b>20.29</b> | <b>20.45</b>  | <b>18.84</b>    | <b>19.57</b> | <b>19.80</b> |
|        | SE(m)            | 0.19         | 0.38         | 0.19         | 0.18         | 0.52         | 0.43           | 0.16         | 0.32          | 0.37            | 0.17         |              |
|        | CD               | 0.57         | 1.14         | 0.58         | 0.45         | 1.11         | 0.91           | 0.50         | 0.95          | 1.07            | 0.52         |              |
|        | CV               | 1.75         | 3.41         | 1.64         | 1.61         | 3.13         | 2.64           | 1.40         | 2.67          | 3.00            | 1.52         |              |

**Table 4.4.6. Purity (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15025         | 91.36        | 90.99        | 90.93        | 86.34        | 87.61        | 87.73          | 88.29        | 87.33         | -               | 92.85        | 89.27        |
| 2      | Co 16029         | 90.17        | 88.60        | 90.56        | 88.35        | 89.01        | 87.20          | 87.68        | 87.62         | 89.92           | 90.40        | 88.95        |
| 3      | CoLk 14201       | 90.85        | 90.30        | -            | 86.97        | 89.35        | 87.83          | 88.38        | 87.10         | 86.44           | 90.71        | 88.66        |
| 4      | CoLk 16201       | 91.07        | 92.91        | 89.43        | 87.16        | 88.62        | 88.49          | 87.85        | 86.18         | 91.76           | 90.76        | 89.42        |
| 5      | CoLk 16202       | 89.55        | 87.70        | 88.30        | 88.25        | 89.23        | 87.04          | 88.19        | 87.48         | 89.73           | 91.94        | 88.74        |
| 6      | CoPb 16181       | 91.07        | 87.88        | 86.81        | 85.98        | 88.43        | 86.58          | 87.88        | 86.49         | 84.15           | 89.83        | 87.51        |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64           | 91.05        | 89.14        | 90.06        | 86.94        | 88.66        | 87.02          | 88.94        | 86.99         | 89.64           | 90.56        | 88.90        |
| 2      | Co 0238          | 89.66        | 91.39        | 89.55        | 87.48        | 89.88        | 87.54          | 88.79        | 87.93         | 89.16           | 88.45        | 88.98        |
| 3      | Co 05009         | 90.76        | 90.90        | 91.21        | 86.89        | 89.36        | 87.22          | 88.19        | 88.00         | 87.71           | 90.54        | 89.08        |
|        | <b>GM</b>        | <b>90.62</b> | <b>89.98</b> | <b>89.61</b> | <b>87.13</b> | <b>88.91</b> | <b>87.40</b>   | <b>88.24</b> | <b>87.23</b>  | <b>88.57</b>    | <b>90.67</b> | <b>88.83</b> |
|        | SE(m)            | 0.44         | 0.76         | 0.63         | 0.15         | 0.89         | 0.67           | 0.42         | 0.37          | 0.63            | 0.98         |              |
|        | CD               | 1.30         | 2.25         | 1.95         | 0.36         | NS           | NS             | NS           | 1.11          | 1.83            | NS           |              |
|        | CV               | 0.83         | 1.47         | 1.21         | 0.30         | 1.22         | 0.94           | 0.82         | 0.73          | 2.01            | 1.88         |              |

Table 4.4.7. Pol % cane at harvest

| S. No. | Clone            | Faridkot | Kapur thala  | Karnal       | Kota | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Uchani | Mean         |
|--------|------------------|----------|--------------|--------------|------|--------------|----------------|------------|---------------|-----------------|--------|--------------|
| 1      | Co 15025         | -        | 15.56        | 14.91        | -    | 13.22        | 13.22          | -          | 13.64         | -               | -      | 14.11        |
| 2      | Co 16029         | -        | 13.96        | 14.24        | -    | 13.20        | 13.15          | -          | 13.80         | -               | -      | 13.67        |
| 3      | CoLk 14201       | -        | 14.92        | -            | -    | 14.08        | 13.89          | -          | 13.49         | -               | -      | 14.10        |
| 4      | CoLk 16201       | -        | 14.04        | 13.41        | -    | 13.68        | 13.14          | -          | 12.67         | -               | -      | 13.39        |
| 5      | CoLk 16202       | -        | 14.07        | 13.62        | -    | 14.60        | 13.25          | -          | 13.63         | -               | -      | 13.83        |
| 6      | CoPb 16181       | -        | 13.77        | 13.50        | -    | 13.56        | 12.82          | -          | 12.61         | -               | -      | 13.25        |
|        | <b>Standards</b> |          |              |              |      |              |                |            |               |                 |        |              |
| 1      | CoJ 64           | -        | 14.60        | 14.23        | -    | 13.80        | 13.95          | -          | 13.49         | -               | -      | 14.01        |
| 2      | Co 0238          | -        | 13.98        | 14.27        | -    | 14.78        | 13.82          | -          | 14.07         | -               | -      | 14.18        |
| 3      | Co 05009         | -        | 14.34        | 13.88        | -    | 13.65        | 13.04          | -          | 13.93         | -               | -      | 13.77        |
|        | <b>GM</b>        | -        | <b>14.36</b> | <b>14.00</b> | -    | <b>13.84</b> | <b>13.37</b>   | -          | <b>13.48</b>  | -               | -      | <b>13.81</b> |
|        | SE(m)            | -        | 0.24         | 0.19         | -    | 0.46         | -              | -          | 0.26          | -               | -      |              |
|        | CD               | -        | 0.71         | 0.58         | -    | 0.97         | -              | -          | 0.77          | -               | -      |              |
|        | CV               | -        | 2.88         | 2.32         | -    | 4.06         | -              | -          | 3.29          | -               | -      |              |

**Table 4.4.8. Extraction (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15025         | 55.23        | 57.71        | 63.39        | 44.26        | 50.65        | 49.75          | -          | 57.74         | -               | 61.89        | 55.08        |
| 2      | Co 16029         | 56.91        | 55.23        | 61.52        | 39.33        | 49.09        | 50.72          | -          | 56.83         | 52.25           | 64.70        | 54.06        |
| 3      | CoLk 14201       | 59.82        | 55.54        | -            | 40.27        | 45.05        | 50.02          | -          | 59.56         | 51.15           | 65.81        | 53.40        |
| 4      | CoLk 16201       | 55.55        | 53.73        | 59.35        | 41.88        | 49.49        | 49.62          | -          | 56.67         | 49.96           | 65.51        | 53.53        |
| 5      | CoLk 16202       | 57.06        | 57.96        | 59.58        | 41.72        | 48.35        | 48.81          | -          | 56.04         | 45.17           | 63.22        | 53.10        |
| 6      | CoPb 16181       | 57.17        | 55.72        | 62.32        | 42.98        | 46.58        | 49.16          | -          | 57.71         | 43.56           | 67.31        | 53.61        |
|        | <b>Standards</b> |              |              |              |              |              |                |            |               |                 |              |              |
| 1      | CoJ 64           | 57.28        | 59.96        | 61.61        | 43.37        | 46.96        | 49.44          | -          | 58.14         | 53.53           | 64.12        | 54.93        |
| 2      | Co 0238          | 59.30        | 54.96        | 60.29        | 48.67        | 54.36        | 51.61          | -          | 58.62         | 50.99           | 68.70        | 56.39        |
| 3      | Co 05009         | 57.55        | 56.12        | 58.87        | 46.53        | 48.40        | 49.26          | -          | 56.59         | 41.43           | 64.39        | 53.24        |
|        | <b>GM</b>        | <b>57.32</b> | <b>56.32</b> | <b>60.87</b> | <b>43.22</b> | <b>48.77</b> | <b>49.82</b>   | <b>-</b>   | <b>57.55</b>  | <b>48.51</b>    | <b>65.07</b> | <b>54.15</b> |
|        | SE(m)            | 0.93         | 0.78         |              | 0.53         | 2.62         | -              | -          | 1.07          | 1.56            | 1.06         |              |
|        | CD               | 2.77         | 2.34         | NS           | 1.27         | NS           | -              | -          | NS            | 4.52            | 3.21         |              |
|        | CV               | 2.84         | 2.40         |              | 2.11         | 6.58         | -              | -          | 3.23          | 8.87            | 2.82         |              |

**Table 4.4.9. Fibre (%) at harvest**

| S. No. | Clone            | Faridkot | Kapur thala  | Karnal       | Kota | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Uchani | Mean         |
|--------|------------------|----------|--------------|--------------|------|--------------|----------------|------------|---------------|-----------------|--------|--------------|
| 1      | Co 15025         | -        | 13.06        | 10.41        | -    | 12.98        | 13.51          | -          | 14.44         | -               | -      | 12.88        |
| 2      | Co 16029         | -        | 14.22        | 11.58        | -    | 14.52        | 13.35          | -          | 14.45         | -               | -      | 13.62        |
| 3      | CoLk 14201       | -        | 13.54        | -            | -    | 13.04        | 13.48          | -          | 14.39         | -               | -      | 13.61        |
| 4      | CoLk 16201       | -        | 13.54        | 11.21        | -    | 13.35        | 13.57          | -          | 14.66         | -               | -      | 13.27        |
| 5      | CoLk 16202       | -        | 12.33        | 12.43        | -    | 13.06        | 13.61          | -          | 14.44         | -               | -      | 13.17        |
| 6      | CoPb 16181       | -        | 13.09        | 12.84        | -    | 14.78        | 13.71          | -          | 14.49         | -               | -      | 13.78        |
|        | <b>Standards</b> |          |              |              |      |              |                |            |               |                 |        |              |
| 1      | CoJ 64           | -        | 12.87        | 10.31        | -    | 13.74        | 13.34          | -          | 14.40         | -               | -      | 12.93        |
| 2      | Co 0238          | -        | 14.41        | 12.24        | -    | 14.52        | 13.37          | -          | 14.33         | -               | -      | 13.77        |
| 3      | Co 05009         | -        | 13.51        | 13.58        | -    | 14.27        | 13.55          | -          | 14.38         | -               | -      | 13.86        |
|        | <b>GM</b>        | -        | <b>13.40</b> | <b>11.83</b> | -    | <b>13.81</b> | <b>13.50</b>   | -          | <b>14.44</b>  | -               | -      | <b>13.43</b> |
|        | SE(m)            | -        | 0.56         | 0.14         | -    | 0.51         | -              | -          | 0.08          | -               | -      |              |
|        | CD               | -        | NS           | 0.45         | -    | 1.09         | -              | -          | NS            | -               | -      |              |
|        | CV               | -        | 4.85         | 2.06         | -    | 4.55         | -              | -          | 0.96          | -               | -      |              |

**Table 4.4.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15025         | 65.43        | 79.14        | 97.61        | 75.93        | 63.35        | 103.21         | 41.00        | 87.90         | -               | 64.75        | 75.37        |
| 2      | Co 16029         | 83.64        | 74.46        | 92.28        | 81.73        | 79.86        | 97.41          | 44.67        | 96.67         | 110.74          | 74.39        | 83.59        |
| 3      | CoLk 14201       | 88.43        | 80.80        | -            | 86.17        | 110.26       | 99.14          | 63.67        | 118.52        | 92.92           | 92.68        | 92.51        |
| 4      | CoLk 16201       | 89.35        | 97.77        | 104.78       | 77.78        | 107.79       | 105.68         | 67.00        | 105.43        | 106.14          | 89.12        | 95.08        |
| 5      | CoLk 16202       | 96.14        | 96.70        | 99.31        | 82.22        | 117.96       | 104.19         | 60.67        | 102.96        | 89.88           | 101.98       | 95.20        |
| 6      | CoPb 16181       | 107.72       | 96.23        | 86.50        | 87.53        | 97.15        | 108.52         | 63.67        | 102.72        | 101.60          | 109.10       | 96.07        |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64           | 108.33       | 94.68        | 104.31       | 70.99        | 96.37        | 105.31         | 88.00        | 115.68        | 88.78           | 105.28       | 97.77        |
| 2      | Co 0238          | 85.96        | 85.17        | 100.54       | 73.83        | 78.27        | 95.31          | 67.33        | 107.41        | 90.04           | 92.16        | 87.60        |
| 3      | Co 05009         | 88.58        | 85.31        | 106.33       | 73.09        | 86.81        | 98.39          | 63.67        | 98.52         | 89.58           | 89.85        | 88.01        |
|        | <b>GM</b>        | <b>90.40</b> | <b>87.81</b> | <b>98.96</b> | <b>78.81</b> | <b>93.09</b> | <b>101.91</b>  | <b>62.19</b> | <b>103.98</b> | <b>96.21</b>    | <b>91.03</b> | <b>90.13</b> |
|        | SE(m)            | 3.22         | 1.76         | 3.63         | 3.92         | 2.43         | 1.43           | 2.22         | 2.11          | 3.81            | 4.52         |              |
|        | CD               | 9.56         | 5.27         | 11.30        | 9.47         | 5.15         | 3.04           | 6.72         | 6.31          | 11.01           | 13.67        |              |
|        | CV               | 6.09         | 3.47         | 6.33         | 8.61         | 3.19         | 4.65           | 6.19         | 3.51          | 8.37            | 8.60         |              |



Table 4.4.11. Stalk Length (cm) at harvest

| S. No. | Clone            | Faridkot      | Kapur thala   | Karnal        | Kota          | Lucknow       | Muzaffar nagar | Pant nagar    | Shahja hanpur | Srganaga nagar | Uchani        | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|
| 1      | Co 15025         | 221.00        | 259.00        | 267.00        | 150.00        | 142.00        | 164.00         | 209.00        | 177.00        | -              | 238.00        | <b>203.00</b> |
| 2      | Co 16029         | 216.00        | 260.00        | 267.00        | 138.00        | 159.00        | 174.00         | 214.00        | 243.00        | 205.00         | 211.00        | <b>208.70</b> |
| 3      | CoLk 14201       | 191.00        | 208.00        | -             | 152.00        | 208.00        | 168.00         | 161.00        | 230.00        | 236.00         | 229.00        | <b>198.11</b> |
| 4      | CoLk 16201       | 208.00        | 229.00        | 250.00        | 177.00        | 189.00        | 172.00         | 202.00        | 203.00        | 174.00         | 219.00        | <b>202.30</b> |
| 5      | CoLk 16202       | 235.00        | 279.00        | 272.00        | 200.00        | 187.00        | 210.00         | 203.00        | 210.00        | 240.00         | 253.00        | <b>228.90</b> |
| 6      | CoPb 16181       | 257.00        | 266.00        | 230.00        | 185.00        | 170.00        | 194.00         | 205.00        | 240.00        | 233.00         | 243.00        | <b>222.30</b> |
|        | <b>Standards</b> |               |               |               |               |               |                |               |               |                |               |               |
| 1      | CoJ 64           | 214.00        | 236.00        | 253.00        | 180.00        | 139.00        | 162.00         | 171.00        | 205.00        | 237.00         | 208.00        | <b>200.50</b> |
| 2      | Co 0238          | 218.00        | 272.00        | 280.00        | 173.00        | 189.00        | 166.00         | 202.00        | 221.00        | 290.00         | 263.00        | <b>227.40</b> |
| 3      | Co 05009         | 270.00        | 279.00        | 297.00        | 180.00        | 139.00        | 182.00         | 227.00        | 221.00        | 237.00         | 247.00        | <b>227.90</b> |
|        | <b>Mean</b>      | <b>225.56</b> | <b>254.22</b> | <b>264.50</b> | <b>170.56</b> | <b>169.11</b> | <b>176.89</b>  | <b>199.33</b> | <b>216.67</b> | <b>231.50</b>  | <b>234.56</b> | <b>213.23</b> |
|        | SE(m)            | 6.51          | 9.99          | 0.08          | 0.06          | 0.06          | 0.12           | 0.04          | 5.01          | 0.04           | 9.19          |               |
|        | CD               | 19.34         | 29.94         | 24.00         | 14.00         | 12.00         | 25.00          | 11.00         | 15.01         | 11.00          | 27.78         |               |
|        | CV               | 4.93          | 6.81          | 5.12          | 5.73          | 4.08          | 8.10           | 3.28          | 4.00          | 2.68           | 6.78          |               |

Table 4.4.12. Stalk Diameter (cm) at harvest

| S. No. | Clone            | Faridkot    | Kapur thala | Karnal      | Kota        | Lucknow     | Muzaffar nagar | Pant nagar  | Shahja hanpur | Sriganag anagar | Uchani      | Mean        |
|--------|------------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|-----------------|-------------|-------------|
| 1      | Co 15025         | 3.01        | 2.57        | 2.32        | 3.30        | 2.88        | 2.84           | 2.76        | 2.60          | -               | 2.75        | 2.78        |
| 2      | Co 16029         | 2.86        | 2.47        | 2.48        | 2.43        | 2.52        | 2.04           | 2.61        | 2.36          | 2.50            | 2.61        | 2.49        |
| 3      | CoLk 14201       | 2.93        | 2.33        | -           | 2.60        | 2.47        | 2.54           | 2.57        | 2.35          | 2.53            | 2.41        | 2.53        |
| 4      | CoLk 16201       | 2.94        | 2.53        | 2.72        | 2.57        | 2.74        | 2.38           | 2.86        | 2.47          | 2.60            | 2.63        | 2.64        |
| 5      | CoLk 16202       | 2.74        | 2.34        | 2.14        | 2.53        | 2.41        | 2.20           | 2.20        | 2.41          | 2.42            | 2.40        | 2.38        |
| 6      | CoPb 16181       | 2.54        | 2.31        | 2.31        | 2.27        | 2.38        | 2.52           | 2.29        | 2.25          | 2.57            | 2.39        | 2.38        |
|        | <b>Standards</b> |             |             |             |             |             |                |             |               |                 |             |             |
| 1      | CoJ 64           | 2.51        | 2.34        | 2.20        | 2.13        | 2.20        | 2.36           | 2.24        | 2.15          | 2.36            | 2.32        | 2.28        |
| 2      | Co 0238          | 2.94        | 2.63        | 2.50        | 2.63        | 2.75        | 2.34           | 2.62        | 2.51          | 2.35            | 2.60        | 2.59        |
| 3      | Co 05009         | 2.59        | 2.30        | 2.00        | 2.40        | 2.35        | 2.23           | 2.42        | 2.23          | 2.37            | 2.36        | 2.33        |
|        | <b>GM</b>        | <b>2.78</b> | <b>2.43</b> | <b>2.33</b> | <b>2.54</b> | <b>2.52</b> | <b>2.38</b>    | <b>2.51</b> | <b>2.37</b>   | <b>2.46</b>     | <b>2.50</b> | <b>2.49</b> |
|        | SE(m)            | 0.06        | 0.08        | 0.10        | 0.09        | 0.10        | 0.15           | 0.09        | 0.03          | 0.12            | 0.06        |             |
|        | CD               | 0.18        | NS          | 0.32        | 0.22        | 0.22        | 0.31           | 0.27        | 0.09          | 0.36            | 0.19        |             |
|        | CV               | 3.85        | 5.65        | 7.69        | 6.25        | 5.08        | 7.54           | 6.08        | 2.24          | 7.25            | 4.30        |             |

Table 4.4.13. Single Cane Weight (kg.) at harvest

| S. No. | Clone            | Faridkot    | Kapur thala | Karnal      | Kota        | Lucknow     | Muzaffar nagar | Pant nagar  | Shahja hanpur | Sriganaga nagar | Uchani      | Mean        |
|--------|------------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|-----------------|-------------|-------------|
| 1      | Co 15025         | 1.47        | 1.03        | 1.46        | 1.28        | 1.02        | 1.04           | 1.71        | 0.98          | -               | 1.42        | 1.27        |
| 2      | Co 16029         | 1.21        | 1.07        | 1.37        | 1.03        | 0.88        | 0.98           | 1.59        | 1.04          | 0.97            | 0.98        | 1.11        |
| 3      | CoLk 14201       | 1.13        | 1.03        | -           | 1.02        | 0.96        | 0.95           | 1.15        | 0.95          | 1.32            | 1.03        | 1.06        |
| 4      | CoLk 16201       | 1.12        | 0.95        | 1.12        | 1.10        | 0.93        | 0.95           | 1.49        | 0.89          | 1.06            | 1.08        | 1.07        |
| 5      | CoLk 16202       | 1.15        | 1.01        | 1.04        | 1.10        | 0.87        | 1.03           | 1.08        | 0.92          | 1.20            | 1.12        | 1.05        |
| 6      | CoPb 16181       | 1.11        | 1.11        | 0.88        | 1.00        | 0.87        | 0.91           | 1.06        | 0.95          | 1.16            | 0.85        | 0.99        |
|        | <b>Standards</b> |             |             |             |             |             |                |             |               |                 |             |             |
| 1      | CoJ 64           | 1.00        | 0.81        | 0.89        | 1.00        | 0.67        | 0.75           | 0.90        | 0.73          | 1.27            | 0.81        | 0.88        |
| 2      | Co 0238          | 1.14        | 1.20        | 1.35        | 1.22        | 1.04        | 1.11           | 1.57        | 1.03          | 1.28            | 1.21        | 1.21        |
| 3      | Co 05009         | 1.26        | 1.05        | 1.14        | 1.09        | 0.68        | 0.89           | 1.27        | 0.87          | 1.13            | 1.06        | 1.04        |
|        | <b>GM</b>        | <b>1.18</b> | <b>1.02</b> | <b>1.16</b> | <b>1.09</b> | <b>0.88</b> | <b>0.96</b>    | <b>1.31</b> | <b>0.93</b>   | <b>1.17</b>     | <b>1.06</b> | <b>1.08</b> |
|        | SE(m)            | 0.05        | 0.05        | 0.03        | 0.05        | 0.03        | 0.06           | 0.03        | 0.03          | 0.03            | 0.05        |             |
|        | CD               | 0.13        | 0.14        | 0.08        | 0.12        | 0.06        | 0.12           | 0.10        | 0.08          | 0.08            | 0.15        |             |
|        | CV               | 6.72        | 8.04        | 4.08        | 7.82        | 3.83        | 7.41           | 4.18        | 4.91          | 3.50            | 7.93        |             |

**Table 4.4.14. CCS (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15025         | 9.74         | 11.65        | 12.57        | 10.09        | 10.52        | 10.78          | 10.80        | 11.81         | -               | 11.19        | 11.02        |
| 2      | Co 16029         | 9.75         | 10.10        | 12.30        | 12.05        | 10.00        | 11.24          | 10.79        | 11.35         | 9.09            | 11.55        | 10.82        |
| 3      | CoLk 14201       | 11.83        | 10.48        | -            | 10.60        | 11.32        | 11.68          | 11.26        | 11.78         | 9.53            | 12.16        | 11.18        |
| 4      | CoLk 16201       | 9.70         | 10.32        | 10.84        | 10.73        | 10.24        | 11.40          | 10.92        | 11.42         | 8.23            | 11.63        | 10.54        |
| 5      | CoLk 16202       | 9.07         | 10.09        | 12.12        | 11.62        | 9.68         | 11.18          | 10.55        | 11.40         | 9.78            | 11.20        | 10.67        |
| 6      | CoPb 16181       | 11.27        | 9.96         | 11.73        | 9.79         | 10.64        | 10.73          | 10.72        | 10.77         | 8.03            | 11.20        | 10.48        |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64           | 11.21        | 11.19        | 11.73        | 9.99         | 11.32        | 11.43          | 10.76        | 11.28         | 8.10            | 12.17        | 10.92        |
| 2      | Co 0238          | 10.41        | 9.93         | 11.41        | 10.42        | 10.68        | 11.33          | 11.05        | 11.90         | 8.32            | 11.86        | 10.73        |
| 3      | Co 05009         | 10.75        | 11.20        | 10.81        | 9.92         | 10.59        | 11.03          | 11.09        | 11.02         | 8.12            | 11.30        | 10.58        |
|        | <b>GM</b>        | <b>10.42</b> | <b>10.54</b> | <b>11.69</b> | <b>10.58</b> | <b>10.56</b> | <b>11.20</b>   | <b>10.88</b> | <b>11.41</b>  | <b>8.65</b>     | <b>11.58</b> | <b>10.77</b> |
|        | SE(m)            | 0.14         | 0.28         | 0.13         | 0.12         | 0.43         | 0.17           | 0.23         | 0.18          | 0.41            | 0.16         |              |
|        | CD               | 0.42         | 0.85         | 0.40         | 0.30         | 0.92         | 0.37           | NS           | 0.54          | 1.18            | 0.50         |              |
|        | CV               | 2.32         | 4.66         | 1.91         | 2.02         | 5.04         | 1.91           | 3.66         | 2.72          | 6.02            | 2.45         |              |

**Table 4.4.15. Sucrose (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Srganaga nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 15025         | 14.10        | 16.86        | 17.93        | 14.88        | 15.50        | 15.86          | 15.96        | 17.28         | -              | 16.20        | 16.06        |
| 2      | Co 16029         | 14.13        | 14.83        | 17.63        | 17.52        | 14.89        | 16.42          | 16.00        | 16.66         | 13.20          | 16.66        | 15.79        |
| 3      | CoLk 14201       | 17.24        | 15.14        | -            | 15.56        | 16.61        | 17.14          | 16.69        | 17.24         | 14.02          | 17.57        | 16.36        |
| 4      | CoLk 16201       | 14.06        | 15.01        | 15.74        | 15.74        | 15.21        | 16.67          | 16.10        | 16.76         | 12.32          | 16.70        | 15.43        |
| 5      | CoLk 16202       | 13.47        | 14.84        | 17.46        | 16.94        | 14.48        | 16.37          | 15.58        | 16.71         | 14.28          | 16.23        | 15.64        |
| 6      | CoPb 16181       | 16.21        | 14.61        | 16.99        | 14.46        | 15.73        | 15.82          | 15.87        | 15.88         | 12.11          | 16.21        | 15.39        |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                |              |              |
| 1      | CoJ 64           | 16.26        | 16.14        | 16.89        | 14.74        | 16.58        | 16.74          | 16.01        | 16.61         | 12.06          | 17.60        | 15.96        |
| 2      | Co 0238          | 15.17        | 14.40        | 16.61        | 15.32        | 15.79        | 16.66          | 16.39        | 17.41         | 12.28          | 17.17        | 15.72        |
| 3      | Co 05009         | 15.44        | 16.02        | 15.77        | 14.64        | 15.70        | 16.17          | 16.39        | 16.21         | 12.06          | 16.37        | 15.48        |
|        | <b>GM</b>        | <b>15.11</b> | <b>15.32</b> | <b>16.88</b> | <b>15.53</b> | <b>15.61</b> | <b>16.43</b>   | <b>16.11</b> | <b>16.75</b>  | <b>12.79</b>   | <b>16.75</b> | <b>15.76</b> |
|        | SE(m)            | 0.18         | 0.36         | 0.16         | 0.17         | 0.57         | 0.27           | 0.29         | 0.24          | 0.20           | 0.21         |              |
|        | CD               | 0.53         | 1.06         | 0.50         | 0.40         | 1.21         | 0.57           | NS           | 0.72          | 0.57           | 0.64         |              |
|        | CV               | 2.05         | 4.01         | 1.65         | 1.86         | 4.48         | 1.99           | 3.07         | 2.47          | 2.91           | 2.17         |              |

**Table 4.4.16. Brix (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15025         | 16.00        | 19.10        | 19.71        | 17.50        | 18.25        | 18.57          | 18.87        | 20.03         | -               | 18.38        | 18.49        |
| 2      | Co 16029         | 16.07        | 17.30        | 19.56        | 20.07        | 17.86        | 18.97          | 19.03        | 19.45         | 15.06           | 18.75        | 18.21        |
| 3      | CoLk 14201       | 19.80        | 17.10        | -            | 18.17        | 19.34        | 19.97          | 19.83        | 20.00         | 16.43           | 19.85        | 18.94        |
| 4      | CoLk 16201       | 16.00        | 17.20        | 17.96        | 18.33        | 18.14        | 19.27          | 18.93        | 19.56         | 14.93           | 18.60        | 17.89        |
| 5      | CoLk 16202       | 16.10        | 17.37        | 19.61        | 19.50        | 17.51        | 19.00          | 18.40        | 19.46         | 16.49           | 18.47        | 18.19        |
| 6      | CoPb 16181       | 18.17        | 17.03        | 19.29        | 17.10        | 18.60        | 18.60          | 18.83        | 18.69         | 14.88           | 18.38        | 17.96        |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64           | 18.50        | 18.17        | 18.93        | 17.37        | 19.27        | 19.37          | 19.17        | 19.51         | 14.47           | 19.93        | 18.47        |
| 2      | Co 0238          | 17.43        | 16.40        | 19.07        | 17.93        | 18.69        | 19.54          | 19.50        | 20.17         | 14.51           | 19.50        | 18.27        |
| 3      | Co 05009         | 17.20        | 17.73        | 18.19        | 17.27        | 18.67        | 18.80          | 19.40        | 19.02         | 14.37           | 18.60        | 17.93        |
|        | <b>GM</b>        | <b>17.25</b> | <b>17.49</b> | <b>19.04</b> | <b>18.14</b> | <b>18.48</b> | <b>19.12</b>   | <b>19.11</b> | <b>19.54</b>  | <b>15.14</b>    | <b>18.94</b> | <b>18.26</b> |
|        | SE(m)            | 0.18         | 0.31         | 0.18         | 0.16         | 0.56         | 0.39           | 0.22         | 0.23          | 0.33            | 0.24         |              |
|        | CD               | 0.52         | 0.92         | 0.56         | 0.39         | NS           | 0.83           | 0.67         | 0.68          | 0.95            | 0.74         |              |
|        | CV               | 1.77         | 3.03         | 1.64         | 1.54         | 3.68         | 2.50           | 2.02         | 2.01          | 2.88            | 2.23         |              |

**Table 4.4.17. Purity (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15025         | 88.14        | 88.27        | 91.01        | 85.00        | 84.95        | 85.40          | 84.58        | 86.25         | -               | 88.13        | 86.86        |
| 2      | Co 16029         | 87.95        | 85.71        | 90.11        | 87.32        | 83.34        | 86.56          | 84.05        | 85.64         | 87.67           | 88.84        | 86.72        |
| 3      | CoLk 14201       | 87.05        | 88.54        | -            | 85.67        | 85.88        | 85.82          | 84.12        | 86.19         | 85.33           | 88.52        | 86.35        |
| 4      | CoLk 16201       | 87.88        | 87.28        | 87.65        | 85.83        | 83.81        | 86.44          | 85.03        | 85.69         | 82.52           | 89.77        | 86.19        |
| 5      | CoLk 16202       | 83.67        | 85.42        | 89.08        | 86.86        | 82.62        | 86.17          | 84.67        | 85.88         | 86.58           | 87.90        | 85.89        |
| 6      | CoPb 16181       | 89.25        | 85.79        | 88.08        | 84.58        | 84.56        | 85.02          | 84.25        | 84.96         | 81.36           | 88.17        | 85.60        |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64           | 87.87        | 88.80        | 89.21        | 84.87        | 86.07        | 86.32          | 83.50        | 85.14         | 83.32           | 88.30        | 86.34        |
| 2      | Co 0238          | 87.00        | 87.80        | 87.11        | 85.44        | 84.56        | 85.29          | 84.02        | 86.31         | 84.65           | 88.09        | 86.03        |
| 3      | Co 05009         | 89.75        | 90.35        | 86.7         | 84.76        | 84.03        | 85.97          | 84.51        | 85.25         | 83.88           | 87.98        | 86.32        |
|        | <b>GM</b>        | <b>87.62</b> | <b>87.55</b> | <b>88.62</b> | <b>85.59</b> | <b>84.42</b> | <b>85.89</b>   | <b>84.30</b> | <b>85.70</b>  | <b>84.41</b>    | <b>88.41</b> | <b>86.25</b> |
|        | SE(m)            | 0.52         | 0.95         | 0.57         | 0.15         | 1.11         | 0.74           | 0.63         | 0.29          | 0.71            | 0.73         |              |
|        | CD               | 1.55         | 2.84         | 1.78         | 0.37         | NS           | NS             | NS           | 0.87          | 2.09            | NS           |              |
|        | CV               | 1.03         | 1.87         | 1.12         | 0.31         | 1.61         | 1.05           | 1.29         | 0.59          | 2.23            | 1.44         |              |

Table 4.4.18. Number of Shoots ('000/ha) at 240 days

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Uchani        | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|-----------------|---------------|--------------|
| 1      | Co 15025         | 70.99        | 82.19        | 97.61        | 78.40        | 66.51        | -              | -          | -             | -               | 81.64         | 79.56        |
| 2      | Co 16029         | 89.51        | 77.32        | 92.28        | 82.84        | 84.88        | -              | -          | -             | -               | 82.87         | 84.95        |
| 3      | CoLk 14201       | 106.33       | 83.91        | -            | 87.65        | 113.50       | -              | -          | -             | -               | 125.62        | 103.40       |
| 4      | CoLk 16201       | 97.99        | 101.54       | 104.78       | 82.84        | 112.19       | -              | -          | -             | -               | 112.04        | 101.90       |
| 5      | CoLk 16202       | 111.57       | 100.75       | 99.31        | 84.20        | 119.44       | -              | -          | -             | -               | 125.31        | 106.76       |
| 6      | CoPb 16181       | 116.82       | 99.94        | 86.50        | 88.89        | 100.08       | -              | -          | -             | -               | 121.76        | 102.33       |
|        | <b>Standards</b> |              |              |              |              |              |                |            |               |                 |               |              |
| 1      | CoJ 64           | 111.88       | 97.65        | 104.31       | 73.21        | 100.00       | -              | -          | -             | -               | 124.84        | 101.98       |
| 2      | Co 0238          | 91.98        | 88.45        | 100.54       | 75.19        | 81.94        | -              | -          | -             | -               | 116.05        | 92.36        |
| 3      | Co 05009         | 93.36        | 88.27        | 106.33       | 74.94        | 90.74        | -              | -          | -             | -               | 113.73        | 94.56        |
|        | <b>GM</b>        | <b>98.94</b> | <b>91.11</b> | <b>98.96</b> | <b>80.91</b> | <b>96.59</b> | -              | -          | -             | -               | <b>111.54</b> | <b>96.42</b> |
|        | SE(m)            | 3.96         | 1.90         | 3.63         | 4.22         | 2.27         | -              | -          | -             | -               | 5.46          |              |
|        | CD               | 11.76        | 5.69         | 11.30        | 10.20        | 4.82         | -              | -          | -             | -               | 16.50         |              |
|        | CV               | 6.86         | 3.62         | 6.33         | 9.03         | 2.88         | -              | -          | -             | -               | 8.47          |              |



**Table 4.4.19. Number of Tillers ('000/ha) at 120 days**

| S. No. | Clone            | Faridkot      | Kapur thala  | Karnal        | Kota         | Lucknow      | Muzaffa rnagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchani        | Mean          |
|--------|------------------|---------------|--------------|---------------|--------------|--------------|----------------|--------------|---------------|-----------------|---------------|---------------|
| 1      | Co 15025         | 88.27         | 88.95        | 147.76        | 87.65        | 69.21        | 169.01         | 52.67        | 184.94        | -               | 103.86        | 110.26        |
| 2      | Co 16029         | 120.37        | 83.69        | 111.88        | 93.58        | 88.35        | 173.21         | 60.00        | 189.38        | 140.64          | 96.60         | 115.77        |
| 3      | CoLk 14201       | 121.30        | 90.82        | -             | 98.40        | 117.75       | 184.32         | 92.67        | 217.28        | 118.01          | 145.68        | 131.80        |
| 4      | CoLk 16201       | 120.68        | 109.90       | 142.05        | 93.70        | 115.28       | 193.08         | 97.00        | 187.90        | 134.80          | 147.99        | 134.24        |
| 5      | CoLk 16202       | 126.70        | 109.05       | 144.06        | 92.84        | 121.22       | 201.11         | 80.67        | 188.15        | 114.15          | 154.63        | 133.26        |
| 6      | CoPb 16181       | 123.92        | 108.16       | 107.41        | 99.63        | 103.16       | 203.21         | 56.00        | 192.47        | 129.03          | 143.05        | 126.60        |
|        | <b>Standards</b> |               |              |               |              |              |                |              |               |                 |               |               |
| 1      | CoJ 64           | 125.93        | 105.69       | 134.95        | 80.25        | 101.54       | 205.18         | 107.33       | 202.22        | 112.75          | 147.38        | 132.32        |
| 2      | Co 0238          | 114.35        | 95.73        | 139.35        | 83.95        | 87.11        | 182.34         | 59.33        | 192.35        | 114.35          | 135.49        | 120.44        |
| 3      | Co 05009         | 116.51        | 95.53        | 138.5         | 80.99        | 93.36        | 178.15         | 94.33        | 179.38        | 113.77          | 135.03        | 122.56        |
|        | <b>GM</b>        | <b>117.56</b> | <b>98.61</b> | <b>133.25</b> | <b>90.11</b> | <b>99.67</b> | <b>187.74</b>  | <b>77.78</b> | <b>192.67</b> | <b>122.19</b>   | <b>134.41</b> | <b>125.25</b> |
|        | SE(m)            | 8.09          | 2.06         | 5.34          | 5.25         | 2.26         | 4.20           | 2.77         | 6.13          | 1.56            | 5.85          |               |
|        | CD               | 24.05         | 6.16         | 16.64         | 12.71        | 4.79         | 8.90           | 8.36         | 18.37         | 4.51            | 17.70         |               |
|        | CV               | 11.87         | 3.61         | 7.05          | 10.10        | 2.78         | 7.39           | 6.16         | 5.51          | 5.56            | 7.54          |               |

**Table 4.4.20. Germination (%) at 45 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | Co 15025         | 29.75        | 39.12        | 54.69        | 46.76        | 30.69        | 37.22          | 28.01        | 46.11         | -               | 44.33        | 39.63        |
| 2      | Co 16029         | 36.95        | 41.08        | 55.84        | 44.72        | 32.44        | 35.28          | 33.27        | 46.11         | 46.31           | 47.11        | 41.91        |
| 3      | CoLk 14201       | 40.72        | 42.46        | -            | 48.98        | 42.10        | 40.83          | 42.19        | 54.44         | 51.55           | 63.54        | 47.42        |
| 4      | CoLk 16201       | 38.75        | 46.97        | 51.04        | 46.57        | 39.91        | 38.24          | 36.46        | 47.78         | 49.58           | 49.77        | 44.51        |
| 5      | CoLk 16202       | 49.81        | 51.47        | 58.97        | 50.19        | 41.62        | 42.50          | 35.07        | 47.22         | 49.68           | 56.72        | 48.33        |
| 6      | CoPb 16181       | 37.89        | 45.29        | 40.45        | 46.76        | 35.48        | 46.21          | 30.84        | 48.98         | 44.52           | 45.72        | 42.21        |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64           | 34.64        | 47.90        | 60.13        | 45.37        | 38.03        | 39.26          | 38.54        | 51.85         | 41.74           | 52.43        | 44.99        |
| 2      | Co 0238          | 39.61        | 44.91        | 55.73        | 49.91        | 33.91        | 44.26          | 31.14        | 48.15         | 39.64           | 50.23        | 43.75        |
| 3      | Co 05009         | 40.64        | 46.66        | 57.93        | 46.30        | 32.25        | 32.22          | 36.11        | 43.80         | 42.37           | 50.23        | 42.85        |
|        | <b>GM</b>        | <b>38.75</b> | <b>45.10</b> | <b>54.35</b> | <b>47.28</b> | <b>36.27</b> | <b>39.56</b>   | <b>34.63</b> | <b>48.27</b>  | <b>45.67</b>    | <b>51.12</b> | <b>43.96</b> |
|        | SE(m)            | 2.25         | 1.97         | 2.74         | 2.84         | 1.86         | 0.42           | 2.07         | 1.19          | 1.50            | 1.13         |              |
|        | CD               | 6.69         | 5.91         | 8.53         | 6.87         | 3.94         | 0.89           | 6.25         | 3.57          | 4.33            | 3.41         |              |
|        | CV               | 10.24        | 7.58         | 8.74         | 10.40        | 6.27         | 8.30           | 10.33        | 4.27          | 4.97            | 3.82         |              |

**Table 4.4.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S. No | Genotype   | Lucknow | Shahjahan pur | Pantnagar | Muzzaifar nagar | Karnal | Uchani | Kapurthala | Faridkot | Sriganganagar | Kota   |
|-------|------------|---------|---------------|-----------|-----------------|--------|--------|------------|----------|---------------|--------|
| 1     | Co 16029   | Poor    | On par        | Poor      | On par          | NA     | Poor   | On par     | Poor     | Better        | On par |
| 2     | Co 15025   | Poor    | Poor          | On par    | On par          | NA     | Poor   | On par     | On par   | Better        | Poor   |
| 3     | CoLk 16201 | On par  | On par        | Better    | Better          | NA     | On par | On par     | On par   | On Par        | On par |
| 4     | CoLk 16202 | Better  | Better        | On par    | Better          | NA     | On par | Better     | On par   | Poor          | Better |
| 5     | CoPb 16181 | Poor    | Better        | On par    | Better          | NA     | On par | Better     | On par   | Better        | On par |
| 6     | CoLk 14201 | On Par  | Better        | Poor      | Better          | NA     | On par | On par     | Better   | On par        | Better |
|       | Standards  |         |               |           |                 |        |        |            |          |               |        |
| 1     | CoJ 64     | II      | II            | II        | II              | NA     | III    | III        | III      | III           | III    |
| 2     | Co 0238    | Best    | Best          | Best      | Best            | NA     | Best   | Best       | II       | Best          | Best   |
| 3     | Co 05009   | III     | III           | III       | III             | NA     | II     | II         | Best     | II            | II     |

**NA= Not allotted.**

#### 4.5. INITIAL VARIETAL TRIAL (EARLY)

|               |   |
|---------------|---|
| Centres (9)   | Faridkot, Kapurthala, Karnal, Kota, Lucknow, Muzaffarnagar, Pantnagar, Shahjahanpur and Sriganaganagar.   |
| Entries (7)   | <ol style="list-style-type: none"> <li>1. CoLk 17201 (81 V 48 x CoH 70)</li> <li>2. CoLk 17202 (CoS 8436 GC)</li> <li>3. CoLk 17203 (CoLk 8102 x LG 04602)</li> <li>4. CoPb 17211 (Co 98014 x Co 1148)</li> <li>5. CoPb 17212 (CoS 96260 GC)</li> <li>6. CoPant 17221 (ISH 100 GC)</li> <li>7. CoS 17231 (CoV 89101 x CoS 96260)</li> </ol> |
| Standards (3) | CoJ 64, Co 0238 and Co 05009  |
| Design        | RBD   |
| Replications  | Three   |
| Plot size     | Gross : 8 Rows x 6 m x 0.9 m<br>Net : 6 Rows x 5 m x 0.9 m  |
| Bud rate      | 12 buds per metre   |
| Planting time | February / March, 2020  |
| Crop duration | 10 months   |

#### Results of the previous year:

Seven entries viz., CoLk 17201, CoLk 17202, CoLk 17203, CoPb 17211, CoPb 17212, CoPant 17221 & CoS 17231 with 3 standards CoJ 64, Co 0238 and Co 05009 were under multiplication.

#### Results of the current year:

Seven test entries and three standards (CoJ 64, Co 0238, Co 05009) were evaluated in RBD design with three replications in nine locations across the North West Zone are presented in tables 4.5.1. to 4.5.20. At Sriganaganagar, due to none germination of CoLk17202, CoLk 17203 and CoPb 17211, data could not be collected. Co 0238 was the best standard for CCS yield and cane yield with 11.35 t/ha and 93.24 t/ha respectively in the zone. None of the test entries were found as superior to best standard Co 0238 for both CCS yield and cane yield. Among the test entries, CoS 17231 (10.83 t/ha) ranked first for CCS yield and >10 % improvement and significantly superior over the best standard (Co 0238) at Muzaffarnagar and Pantnagar followed by CoPant 17221 (10.56 t/ha). CoPant 17221 (92.22 t/ha) ranked first for cane yield with >10 % improvement and significantly superior over the best standard at Faridkot (Co 05009) and Pantnagar (Co 0238) followed by CoS 17231 (88.26 t/ha). CoJ 64 was the best standard for both CCS % and sucrose % with 12.17 and 17.90 respectively in the zone. Among the test entries, CoS 17231 (12.24 %) was top ranked entry and recorded numerically superior CCS % than the standard CoJ 64 in the zone and also ranked first for sucrose % with 17.81 across locations. None of the test entries recorded >5 % improvement over the best standard CoJ 64 for both CCS % and sucrose % in the zone across locations.

**Qualifying entries:** None of the test entries was found as qualifying entry in the trial.

**Table 4.5.1. CCS yield at harvest (t/ha)**

| S. No.                              | Clone        | Faridkot    | Kapur thala | Karnal       | Kota         | Lucknow     | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean        | Overall rank |
|-------------------------------------|--------------|-------------|-------------|--------------|--------------|-------------|----------------|--------------|---------------|-----------------|-------------|--------------|
| 1                                   | CoLk 17201   | 8.20        | 8.20        | 8.61         | 10.45        | 11.19*      | 9.41           | 11.57*       | 10.47         | 11.18           | 9.92        |              |
| 2                                   | CoLk 17202   | 5.61        | 8.74        | 8.92         | 11.38*       | 8.73        | -              | 9.48         | 8.71          | 10.02           | 8.95        |              |
| 3                                   | CoLk 17203   | 7.89        | 10.77*      | 10.19        | 8.06         | 8.30        | -              | 9.35         | 9.67          | 9.09            | 9.17        |              |
| 4                                   | CoPb 17211   | 4.67        | 8.29        | 7.78         | 9.77         | 4.14        | -              | 14.61        | 8.54          | 9.46            | 8.41        |              |
| 5                                   | CoPb 17212   | 12.39       | 9.23        | 10.79        | 8.54         | 5.74        | 9.53           | 13.72        | 9.49          | 9.06            | 9.83        |              |
| 6                                   | CoPant 17221 | 12.05       | 9.95        | 10.15        | 10.73        | 8.53        | 8.60           | 16.52*       | 9.06          | 9.47            | 10.56       | 3            |
| 7                                   | CoS 17231    | 7.54        | 9.69        | 12.02        | 10.36        | 7.48        | 11.53*         | 15.00*       | 12.55         | 11.34           | 10.83       | 2            |
| <b>Standards</b>                    |              |             |             |              |              |             |                |              |               |                 |             |              |
| 1                                   | CoJ 64       | 9.74        | 9.02        | 11.96        | 8.31         | 7.25        | 8.22           | 11.59        | 10.03         | 9.26            | 9.49        |              |
| 2                                   | Co 0238      | 11.63       | 9.65        | 15.01        | 9.48         | 9.62        | 9.92           | 13.53        | 12.51         | 10.78           | 11.35       | 1            |
| 3                                   | Co 05009     | 12.59       | 9.52        | 13.94        | 8.27         | 5.80        | 8.78           | 11.42        | 8.59          | 9.87            | 9.86        |              |
|                                     | <b>GM</b>    | <b>9.23</b> | <b>9.30</b> | <b>10.94</b> | <b>9.53</b>  | <b>7.68</b> | <b>9.44</b>    | <b>12.68</b> | <b>9.96</b>   | <b>9.95</b>     | <b>9.84</b> |              |
|                                     | SE (m)       | 0.60        | 0.33        | 0.87         | 0.52         | 0.55        | 0.33           | 0.44         | 0.36          | 0.64            |             |              |
|                                     | CD           | 1.75        | 0.99        | 2.60         | 1.26         | 1.16        | 0.72           | 1.33         | 1.08          | 1.93            |             |              |
|                                     | CV           | 10.02       | 6.19        | 13.77        | 9.53         | 8.83        | 7.54           | 6.05         | 6.31          | 8.24            |             |              |
| Qualifying entries at each location |              |             |             |              |              |             |                |              |               |                 |             |              |
|                                     | 1            | -           | CoLk 17203  | -            | CoLk 17202   | CoLk 17201  | CoS 17231      | CoPant 17221 | -             | -               | -           |              |
|                                     | 2            | -           | -           | -            | CoPant 17221 | -           | -              | CoS 17231    | -             | -               | -           |              |
|                                     | 3            | -           | -           | -            | CoLk 17201   | -           | -              | -            | -             | -               | -           |              |

**No. of locations where an entry recorded >10% improvement:** CoLk 17201 (2), CoS 17231(2), CoPant 17221(2), CoLk 17202 (1), CoLk 17203 (1).

**Performance across the locations:**

Co 0238 (11.35 t/ha) was the best standard for commercial cane sugar yield (t/ha). None of the test entries performed better than the standard Co 0238 in the zone. Among the test entries, CoS 17231 (10.83 t/ha) ranked first and recorded >10 % improvement and significantly superior over the best standard (Co 0238) at Muzaffarnagar and Pantnagar. CoPant 17221 (10.56 t/ha) ranked second with >10 % improvement over best standard (Co 0238) across locations at Kota and Pantnagar. None of the test entries performed >10% improvement over the best standard Co 0238 in the zone across locations.

**Table 4.5.2. Cane Yield at harvest (t/ha)**

| S. No.                              | Clone        | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar    | Shahja hanpur | Sriganaga nagar | Mean         | Overall rank |
|-------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|---------------|---------------|-----------------|--------------|--------------|
| 1                                   | CoLk 17201   | 75.93        | 74.32        | 79.67        | 89.42*       | 98.76*       | 82.03          | 94.16         | 94.25         | 98.37           | <b>87.43</b> |              |
| 2                                   | CoLk 17202   | 50.62        | 75.06        | 77.50        | 94.28*       | 75.82        | -              | 74.71         | 77.92         | 84.81           | <b>76.34</b> |              |
| 3                                   | CoLk 17203   | 70.99        | 96.69*       | 85.27        | 69.16        | 73.36        | -              | 74.99         | 84.63         | 75.93           | <b>78.88</b> |              |
| 4                                   | CoPb 17211   | 49.38        | 80.90        | 77.33        | 93.22*       | 36.76        | -              | 127.71*       | 80.59         | 82.10           | <b>78.50</b> |              |
| 5                                   | CoPb 17212   | 103.09       | 80.30        | 92.59        | 76.01        | 61.20        | 86.48*         | 110.47        | 83.52         | 89.01           | <b>86.96</b> |              |
| 6                                   | CoPant 17221 | 117.28*      | 81.72        | 92.04        | 87.52*       | 79.14        | 72.59          | 128.24*       | 81.60         | 89.88           | <b>92.22</b> | <b>2</b>     |
| 7                                   | CoS 17231    | 60.80        | 82.62        | 92.95        | 86.84        | 64.02        | 92.96*         | 115.40*       | 103.36        | 95.43           | <b>88.26</b> | <b>3</b>     |
| <b>Standards</b>                    |              |              |              |              |              |              |                |               |               |                 |              |              |
| 1                                   | CoJ 64       | 75.00        | 72.30        | 90.47        | 73.23        | 63.42        | 65.92          | 87.99         | 82.74         | 89.51           | <b>77.84</b> |              |
| 2                                   | Co 0238      | 95.68        | 86.48        | 116.66       | 77.91        | 81.80        | 80.37          | 104.35        | 100.48        | 95.43           | <b>93.24</b> | <b>1</b>     |
| 3                                   | Co 05009     | 101.85       | 76.42        | 111.17       | 70.93        | 53.55        | 71.66          | 93.09         | 72.37         | 81.11           | <b>81.35</b> |              |
|                                     | <b>GM</b>    | <b>80.06</b> | <b>80.68</b> | <b>91.57</b> | <b>81.85</b> | <b>68.78</b> | <b>78.86</b>   | <b>101.11</b> | <b>86.15</b>  | <b>88.16</b>    | <b>84.10</b> |              |
|                                     | SE (m)       | 4.98         | 2.17         | 7.03         | 3.97         | 3.86         | 2.58           | 3.55          | 3.00          | 2.99            |              |              |
|                                     | CD           | 14.53        | 6.44         | 21.05        | 9.51         | 8.12         | 5.63           | 10.63         | 8.92          | 8.96            |              |              |
|                                     | CV           | 9.84         | 4.66         | 13.30        | 8.39         | 6.88         | 7.22           | 6.08          | 6.04          | 3.96            |              |              |
| Qualifying entries at each location |              |              |              |              |              |              |                |               |               |                 |              |              |
| 1                                   | CoPant 17221 | CoLk 17203   | -            | CoLk 17202   | CoLk 17201   | CoS 17231    | CoPb 17211     | -             | -             | -               | -            |              |
| 2                                   | -            | -            | -            | CoPb 17211   | -            | -            | CoPant 17221   | -             | -             | -               | -            |              |
| 3                                   | -            | -            | -            | CoLk 17201   | -            | -            | CoS 17231      | CoS 17231     | -             | -               | -            |              |

**No. of locations where an entry recorded >10% improvement:** CoLk 17201 (2), CoS 17231(2), CoPb 17211 (2), CoPant 17221(2), CoLk 17202 (1), CoLk 17203 (1).

**Performance across the locations:**

Co 0238 (93.24 t/ha) was the best standard for cane yield in the zone. None of the test entries performed better than the standard Co 0238 in the zone across locations. Among the test entries, CoPant 17221 (92.22 t/ha) ranked first and showed >10 % improvement and significantly superior over the best standard at Faridkot (Co 05009) and Pantnagar (Co 0238). CoS 17231 (88.26 t/ha) ranked second with >10 % improvement and significantly superior over the best standard (Co 0238) across locations at Muzaffarnagar and Pantnagar. None of the test entries recorded >10 % improvement over the best standard Co 0238 for cane yield across locations.

**Table 4.5.3. CCS (%) at harvest**

| S. No. | Clone                               | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hampur | Sriganaga nagar | Mean         | Overall rank |
|--------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | CoLk 17201                          | 10.80        | 11.03        | 10.81        | 11.69        | 11.33        | 11.49          | 12.29        | 11.10         | 11.37           | <b>11.32</b> |              |
| 2      | CoLk 17202                          | 11.08        | 11.65        | 11.52        | 12.07        | 11.57        | -              | 12.70        | 11.17         | 11.82           | <b>11.70</b> |              |
| 3      | CoLk 17203                          | 11.11        | 11.15        | 11.95        | 11.67        | 11.29        | -              | 12.47        | 11.45         | 11.97           | <b>11.63</b> |              |
| 4      | CoPb 17211                          | 9.47         | 10.24        | 10.07        | 10.45        | 11.29        | -              | 11.44        | 10.60         | 11.52           | <b>10.64</b> |              |
| 5      | CoPb 17212                          | 12.02        | 11.49        | 11.64        | 11.24        | 9.32         | 11.02          | 12.43        | 11.36         | 10.18           | <b>11.19</b> |              |
| 6      | CoPant 17221                        | 10.28        | 12.17        | 10.97        | 12.25        | 10.79        | 11.84          | 12.90        | 11.10         | 10.54           | <b>11.43</b> |              |
| 7      | CoS 17231                           | 12.44        | 11.72        | 12.92        | 11.95        | 11.70        | 12.39          | 13.00        | 12.14         | 11.88           | <b>12.24</b> | <b>1</b>     |
|        | <b>Standards</b>                    |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64                              | 12.99        | 12.48        | 13.21        | 11.34        | 11.40        | 12.47          | 13.16        | 12.11         | 10.35           | <b>12.17</b> | <b>2</b>     |
| 2      | Co 0238                             | 12.17        | 11.13        | 12.92        | 12.15        | 11.76        | 12.34          | 12.96        | 12.45         | 11.29           | <b>12.13</b> | <b>3</b>     |
| 3      | Co 05009                            | 12.36        | 12.45        | 12.57        | 11.67        | 10.85        | 12.26          | 12.26        | 11.87         | 12.17           | <b>12.05</b> |              |
|        | <b>GM</b>                           | <b>11.47</b> | <b>11.55</b> | <b>11.86</b> | <b>11.64</b> | <b>11.13</b> | <b>11.97</b>   | <b>12.56</b> | <b>11.54</b>  | <b>11.31</b>    | <b>11.65</b> |              |
|        | SE (m)                              | 0.15         | 0.18         | 0.22         | 0.21         | 0.61         | 0.21           | 0.24         | 0.13          | 0.66            |              |              |
|        | CD                                  | 0.44         | 0.55         | 0.65         | 0.51         | 1.29         | 0.47           | 0.71         | 0.38          | 1.98            |              |              |
|        | CV                                  | 2.24         | 2.79         | 3.16         | 3.15         | 6.74         | 2.19           | 3.26         | 1.94          | 5.27            |              |              |
|        | Qualifying entries at each location |              |              |              |              |              |                |              |               |                 |              |              |
|        | 1                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |
|        | 2                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |
|        | 3                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |

**No. of locations where an entry recorded >5% improvement: NIL**

**Performance across the locations:**

CoJ 64 (12.17 %) was the best standard for CCS % in the zone. Among the test entries, CoS 17231 (12.24 %) was top ranked entry and recorded numerically superior CCS % than the standard CoJ 64 in the zone. None of the test entries performed >5 % improvement over the best standard CoJ 64 in the zone across locations.

**Table 4.5.4. Sucrose (%) at harvest**

| S. No. | Clone                               | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         | Overall rank |
|--------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|--------------|
| 1      | CoLk 17201                          | 15.70        | 16.20        | 15.88        | 17.04        | 16.45        | 16.72          | 17.91        | 16.32         | 16.99           | <b>16.58</b> |              |
| 2      | CoLk 17202                          | 16.12        | 16.64        | 16.68        | 17.56        | 16.65        | -              | 18.44        | 16.41         | 17.59           | <b>17.01</b> |              |
| 3      | CoLk 17203                          | 16.13        | 16.02        | 17.27        | 17.01        | 16.34        | -              | 18.07        | 16.78         | 17.25           | <b>16.86</b> |              |
| 4      | CoPb 17211                          | 13.98        | 14.99        | 15.12        | 15.36        | 16.43        | -              | 16.58        | 15.64         | 16.83           | <b>15.62</b> |              |
| 5      | CoPb 17212                          | 17.08        | 16.64        | 16.88        | 16.42        | 13.50        | 16.09          | 18.08        | 16.66         | 16.15           | <b>16.39</b> |              |
| 6      | CoPant 17221                        | 14.79        | 17.53        | 15.97        | 17.80        | 15.57        | 17.21          | 18.73        | 16.31         | 16.50           | <b>16.71</b> |              |
| 7      | CoS 17231                           | 17.65        | 16.71        | 18.49        | 17.38        | 16.80        | 17.98          | 18.94        | 17.71         | 18.62           | <b>17.81</b> | <b>2</b>     |
|        | <b>Standards</b>                    |              |              |              |              |              |                |              |               |                 |              |              |
| 1      | CoJ 64                              | 18.37        | 17.76        | 18.93        | 16.56        | 16.52        | 18.05          | 19.23        | 17.63         | 18.05           | <b>17.90</b> | <b>1</b>     |
| 2      | Co 0238                             | 17.42        | 16.07        | 18.55        | 17.66        | 16.98        | 17.96          | 18.89        | 18.12         | 18.30           | <b>17.77</b> | <b>3</b>     |
| 3      | Co 05009                            | 17.56        | 17.76        | 18.17        | 17.01        | 15.54        | 17.77          | 17.91        | 17.34         | 17.93           | <b>17.44</b> |              |
|        | <b>GM</b>                           | <b>16.48</b> | <b>16.63</b> | <b>17.20</b> | <b>16.97</b> | <b>16.08</b> | <b>17.40</b>   | <b>18.28</b> | <b>16.89</b>  | <b>17.42</b>    | <b>17.01</b> |              |
|        | SE (m)                              | 0.21         | 0.24         | 0.24         | 0.29         | 0.85         | 0.30           | 0.30         | 0.17          | 0.69            |              |              |
|        | CD                                  | 0.62         | 0.72         | 0.71         | 0.69         | 1.79         | 0.65           | 0.89         | 0.51          | 2.07            |              |              |
|        | CV                                  | 2.20         | 2.53         | 2.38         | 2.92         | 6.49         | 2.11           | 2.81         | 1.75          | 3.06            |              |              |
|        | Qualifying entries at each location |              |              |              |              |              |                |              |               |                 |              |              |
|        | 1                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |
|        | 2                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |
|        | 3                                   | -            | -            | -            | -            | -            | -              | -            | -             | -               | -            |              |

**No. of locations where an entry recorded >5% improvement: NIL**

**Performance across the locations:**

CoJ 64 (17.90 %) was the best standard for sucrose % in the zone. None of the test entries performed better than the standard CoJ 64 in the zone. Among the test entries, CoS 17231 (17.81) ranked first in the zone followed by CoLk 17202 (17.01) for sucrose % across locations



**Table 4.5.5. Brix (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | CoLk 17201       | 17.97        | 18.90        | 18.57        | 19.60        | 18.80        | 19.19          | 20.60        | 19.10         | 19.54           | <b>19.14</b> |
| 2      | CoLk 17202       | 18.47        | 18.33        | 18.92        | 20.10        | 18.67        | -              | 21.07        | 19.19         | 19.10           | <b>19.23</b> |
| 3      | CoLk 17203       | 18.40        | 17.90        | 19.51        | 19.57        | 18.50        | -              | 20.53        | 19.51         | 19.37           | <b>19.16</b> |
| 4      | CoPb 17211       | 16.50        | 17.40        | 18.41        | 17.97        | 18.84        | -              | 18.87        | 18.45         | 19.44           | <b>18.24</b> |
| 5      | CoPb 17212       | 18.60        | 18.90        | 19.24        | 19.00        | 15.33        | 18.59          | 20.70        | 19.40         | 18.17           | <b>18.66</b> |
| 6      | CoPant 17221     | 16.57        | 19.67        | 18.32        | 20.33        | 17.56        | 19.69          | 21.37        | 19.08         | 18.17           | <b>18.97</b> |
| 7      | CoS 17231        | 19.17        | 18.33        | 20.48        | 19.93        | 18.75        | 20.49          | 21.77        | 20.39         | 20.97           | <b>20.03</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 19.83        | 19.40        | 21.01        | 19.13        | 18.76        | 20.45          | 22.23        | 20.23         | 20.04           | <b>20.12</b> |
| 2      | Co 0238          | 19.30        | 18.10        | 20.68        | 20.20        | 19.16        | 20.42          | 21.70        | 20.80         | 20.47           | <b>20.09</b> |
| 3      | Co 05009         | 19.13        | 19.50        | 20.55        | 19.57        | 17.23        | 20.22          | 20.67        | 20.04         | 20.04           | <b>19.66</b> |
|        | <b>GM</b>        | <b>18.39</b> | <b>18.64</b> | <b>19.57</b> | <b>19.54</b> | <b>18.16</b> | <b>19.86</b>   | <b>20.95</b> | <b>19.62</b>  | <b>19.53</b>    | <b>19.33</b> |
|        | SE (m)           | 0.25         | 0.28         | 0.21         | 0.28         | 0.93         | 0.37           | 0.25         | 0.16          | 0.40            |              |
|        | CD               | 0.73         | 0.81         | 0.63         | 0.67         | 1.96         | 0.81           | 0.74         | 0.47          | 1.21            |              |
|        | CV               | 2.31         | 2.55         | 1.84         | 2.46         | 6.29         | 2.29           | 2.05         | 1.38          | 2.59            |              |

**Table 4.5.6. Purity (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Srganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|
| 1      | CoLk 17201       | 87.39        | 85.70        | 85.53        | 86.93        | 87.52        | 87.15          | 86.94        | 85.43         | 86.95          | <b>86.62</b> |
| 2      | CoLk 17202       | 87.30        | 90.79        | 88.17        | 87.34        | 89.09        | -              | 87.55        | 85.53         | 92.09          | <b>88.48</b> |
| 3      | CoLk 17203       | 87.64        | 89.50        | 88.52        | 86.91        | 88.25        | -              | 87.98        | 85.98         | 89.06          | <b>87.98</b> |
| 4      | CoPb 17211       | 84.72        | 86.12        | 82.12        | 85.47        | 87.16        | -              | 87.88        | 84.78         | 86.57          | <b>85.60</b> |
| 5      | CoPb 17212       | 91.83        | 88.06        | 87.78        | 86.43        | 88.23        | 86.60          | 87.35        | 85.86         | 88.88          | <b>87.89</b> |
| 6      | CoPant 17221     | 89.29        | 89.14        | 87.13        | 87.53        | 88.71        | 87.44          | 87.63        | 85.47         | 90.81          | <b>88.13</b> |
| 7      | CoS 17231        | 92.08        | 91.12        | 90.31        | 87.21        | 89.64        | 87.76          | 86.99        | 86.83         | 88.79          | <b>88.97</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                |              |
| 1      | CoJ 64           | 92.64        | 91.57        | 90.10        | 86.55        | 88.05        | 88.25          | 86.47        | 87.16         | 90.07          | <b>88.98</b> |
| 2      | Co 0238          | 90.28        | 88.75        | 89.76        | 87.42        | 88.60        | 87.95          | 87.01        | 87.14         | 89.40          | <b>88.48</b> |
| 3      | Co 05009         | 91.79        | 91.06        | 88.45        | 86.91        | 90.23        | 87.88          | 86.65        | 86.53         | 89.47          | <b>88.77</b> |
|        | <b>GM</b>        | <b>89.50</b> | <b>89.18</b> | <b>87.79</b> | <b>86.86</b> | <b>88.55</b> | <b>87.58</b>   | <b>87.25</b> | <b>86.07</b>  | <b>89.21</b>   | <b>87.99</b> |
|        | SE (m)           | 0.42         | 0.76         | 1.06         | 0.23         | 1.30         | 0.45           | 0.56         | 0.23          | 1.12           |              |
|        | CD               | 1.23         | 2.25         | 3.18         | 0.56         | NS           | 0.98           | NS           | 0.67          | 3.37           |              |
|        | CV               | 0.81         | 1.47         | 2.10         | 0.47         | 1.80         | 0.63           | 1.11         | 0.46          | 4.68           |              |

**Table 4.5.7. Pol % cane at harvest**

| S. No. | Clone            | Faridkot | Kapurth<br>ala | Karnal       | Kota | Lucknow      | Muzaffar<br>nagar | Pant<br>nagar | Shahja<br>hanpur | Sriganaga<br>nagar | Mean         |
|--------|------------------|----------|----------------|--------------|------|--------------|-------------------|---------------|------------------|--------------------|--------------|
| 1      | CoLk 17201       | -        | 10.75          | 11.59        | -    | 12.40        | 12.52             | -             | 12.50            | -                  | 11.95        |
| 2      | CoLk 17202       | -        | 12.48          | 12.90        | -    | 12.60        | -                 | -             | 12.57            | -                  | 12.64        |
| 3      | CoLk 17203       | -        | 11.39          | 13.12        | -    | 12.43        | -                 | -             | 12.86            | -                  | 12.45        |
| 4      | CoPb 17211       | -        | 11.27          | 11.56        | -    | 12.44        | -                 | -             | 11.99            | -                  | 11.82        |
| 5      | CoPb 17212       | -        | 11.81          | 12.81        | -    | 10.23        | 11.97             | -             | 12.78            | -                  | 11.92        |
| 6      | CoPant 17221     | -        | 12.57          | 12.57        | -    | 11.82        | 13.22             | -             | 12.50            | -                  | 12.54        |
| 7      | CoS 17231        | -        | 12.87          | 14.09        | -    | 12.84        | 13.29             | -             | 13.57            | -                  | 13.33        |
|        | <b>Standards</b> |          |                |              |      |              |                   |               |                  |                    |              |
| 1      | CoJ 64           | -        | 14.11          | 14.89        | -    | 12.61        | 13.38             | -             | 13.54            | -                  | 13.71        |
| 2      | Co 0238          | -        | 13.72          | 14.32        | -    | 12.91        | 13.19             | -             | 13.92            | -                  | 13.61        |
| 3      | Co 05009         | -        | 14.63          | 13.71        | -    | 11.87        | 13.23             | -             | 13.30            | -                  | 13.35        |
|        | <b>GM</b>        | -        | <b>12.56</b>   | <b>13.16</b> | -    | <b>12.22</b> | <b>12.97</b>      | -             | <b>12.95</b>     | -                  | <b>12.73</b> |
|        | SE (m)           | -        | 0.20           | 0.18         | -    | 0.66         | -                 | -             | 0.13             | -                  |              |
|        | CD               | -        | 0.60           | 0.55         | -    | 1.38         | -                 | -             | 0.39             | -                  |              |
|        | CV               | -        | 2.80           | 2.43         | -    | 6.60         | -                 | -             | 1.74             | -                  |              |

**Table 4.5.8. Extraction (%) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Srganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|----------------|--------------|
| 1      | CoLk 17201       | 43.53        | 49.16        | 53.12        | 43.26        | 47.13        | 49.64          | -          | 54.96         | 51.21          | <b>49.00</b> |
| 2      | CoLk 17202       | 51.65        | 57.06        | 61.60        | 46.58        | 51.43        | -              | -          | 54.80         | 46.50          | <b>52.80</b> |
| 3      | CoLk 17203       | 50.85        | 57.55        | 57.23        | 41.20        | 41.92        | -              | -          | 56.49         | 50.07          | <b>50.76</b> |
| 4      | CoPb 17211       | 53.22        | 57.05        | 59.64        | 45.50        | 48.90        | -              | -          | 56.85         | 50.03          | <b>53.03</b> |
| 5      | CoPb 17212       | 54.24        | 54.10        | 60.00        | 45.87        | 48.57        | 50.36          | -          | 57.42         | 44.51          | <b>51.88</b> |
| 6      | CoPant 17221     | 52.39        | 55.11        | 62.18        | 44.18        | 49.69        | 51.44          | -          | 55.85         | 49.72          | <b>52.57</b> |
| 7      | CoS 17231        | 49.72        | 53.49        | 60.35        | 44.40        | 43.73        | 50.86          | -          | 58.39         | 51.57          | <b>51.56</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |            |               |                |              |
| 1      | CoJ 64           | 50.40        | 54.04        | 59.45        | 45.49        | 47.40        | 51.13          | -          | 58.16         | 50.88          | <b>52.12</b> |
| 2      | Co 0238          | 52.39        | 54.52        | 62.90        | 45.57        | 53.20        | 53.18          | -          | 58.48         | 46.06          | <b>53.29</b> |
| 3      | Co 05009         | 51.17        | 56.34        | 60.45        | 45.51        | 45.06        | 52.27          | -          | 56.76         | 44.55          | <b>51.51</b> |
|        | <b>GM</b>        | <b>50.96</b> | <b>54.84</b> | <b>59.69</b> | <b>44.75</b> | <b>47.70</b> | <b>51.27</b>   | <b>-</b>   | <b>56.82</b>  | <b>48.51</b>   | <b>51.85</b> |
|        | SE (m)           | 0.78         | 1.39         | 1.61         | 0.81         | 2.96         | -              | -          | 0.81          | 1.55           |              |
|        | CD               | 2.27         | 4.15         | 4.83         | 1.94         | 6.23         | -              | -          | 2.41          | 4.65           |              |
|        | CV               | 2.67         | 4.42         | 4.68         | 3.14         | 7.61         | -              | -          | 2.48          | 5.83           |              |

**Table 4.5.9. Fibre (%) at harvest**

| S. No. | Clone            | Faridkot | Kapurthala   | Karnal       | Kota | Lucknow      | Muzaffarnagar | Pantnagar | Shahjahanpur | Sriganaganagar | Mean         |
|--------|------------------|----------|--------------|--------------|------|--------------|---------------|-----------|--------------|----------------|--------------|
| 1      | CoLk 17201       | -        | 14.95        | 17.02        | -    | 14.66        | 13.62         | -         | 13.38        | -              | 14.73        |
| 2      | CoLk 17202       | -        | 12.79        | 12.69        | -    | 14.33        | -             | -         | 13.40        | -              | 13.30        |
| 3      | CoLk 17203       | -        | 15.02        | 14.03        | -    | 13.89        | -             | -         | 13.37        | -              | 14.08        |
| 4      | CoPb 17211       | -        | 12.31        | 13.55        | -    | 14.24        | -             | -         | 13.37        | -              | 13.37        |
| 5      | CoPb 17212       | -        | 17.33        | 14.11        | -    | 14.28        | 13.51         | -         | 13.28        | -              | 14.50        |
| 6      | CoPant 17221     | -        | 15.35        | 11.29        | -    | 14.07        | 13.74         | -         | 13.35        | -              | 13.56        |
| 7      | CoS 17231        | -        | 15.53        | 13.79        | -    | 13.56        | 13.16         | -         | 13.34        | -              | 13.88        |
|        | <b>Standards</b> |          |              |              |      |              |               |           |              |                |              |
| 1      | CoJ 64           | -        | 13.90        | 11.31        | -    | 13.64        | 12.92         | -         | 13.22        | -              | 13.00        |
| 2      | Co 0238          | -        | 14.13        | 12.81        | -    | 13.94        | 13.21         | -         | 13.19        | -              | 13.46        |
| 3      | Co 05009         | -        | 14.11        | 14.55        | -    | 13.59        | 13.40         | -         | 13.33        | -              | 13.80        |
|        | <b>GM</b>        | -        | <b>14.54</b> | <b>13.52</b> | -    | <b>14.02</b> | <b>13.37</b>  | -         | <b>13.32</b> | -              | <b>13.77</b> |
|        | SE (m)           | -        | 0.63         | 0.28         | -    | 0.51         | -             | -         | 0.04         | -              |              |
|        | CD               | -        | 1.87         | 0.84         | -    | NS           | -             | -         | 0.13         | -              |              |
|        | CV               | -        | 7.51         | 3.58         | -    | 4.49         | -             | -         | 0.57         | -              |              |

**Table 4.5.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean          |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|---------------|
| 1      | CoLk 17201       | 86.27        | 82.43        | 97.38        | 80.37        | 92.70        | 114.26         | 62.00        | 94.81         | 117.76          | <b>92.00</b>  |
| 2      | CoLk 17202       | 74.07        | 87.26        | 83.18        | 78.70        | 83.44        | -              | 64.33        | 94.26         | 87.16           | <b>81.55</b>  |
| 3      | CoLk 17203       | 132.72       | 97.96        | 131.17       | 74.63        | 103.29       | -              | 86.67        | 97.04         | 92.77           | <b>102.03</b> |
| 4      | CoPb 17211       | 49.69        | 86.59        | 66.51        | 75.74        | 54.32        | -              | 76.00        | 82.22         | 90.61           | <b>72.71</b>  |
| 5      | CoPb 17212       | 93.98        | 74.93        | 91.36        | 75.00        | 72.33        | 101.85         | 71.33        | 93.89         | 92.69           | <b>85.26</b>  |
| 6      | CoPant 17221     | 111.88       | 75.76        | 83.64        | 67.59        | 86.11        | 110.74         | 70.67        | 86.67         | 87.19           | <b>86.69</b>  |
| 7      | CoS 17231        | 77.47        | 93.54        | 105.09       | 77.78        | 86.93        | 117.41         | 78.00        | 102.22        | 92.88           | <b>92.37</b>  |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |               |
| 1      | CoJ 64           | 94.44        | 96.54        | 108.49       | 70.56        | 85.08        | 112.41         | 85.67        | 99.63         | 89.88           | <b>93.63</b>  |
| 2      | Co 0238          | 99.23        | 82.25        | 81.48        | 70.93        | 78.09        | 88.33          | 60.33        | 90.00         | 93.51           | <b>82.68</b>  |
| 3      | Co 05009         | 98.61        | 84.63        | 98.46        | 67.41        | 79.32        | 105.74         | 65.00        | 83.15         | 90.39           | <b>85.86</b>  |
|        | <b>GM</b>        | <b>91.84</b> | <b>86.19</b> | <b>94.68</b> | <b>73.87</b> | <b>82.16</b> | <b>107.25</b>  | <b>72.00</b> | <b>92.39</b>  | <b>93.48</b>    | <b>87.48</b>  |
|        | SE (m)           | 3.94         | 2.41         | 4.87         | 3.11         | 3.20         | 4.02           | 1.66         | 3.07          | 3.95            |               |
|        | CD               | 11.51        | 7.15         | 14.58        | 7.47         | 6.73         | 8.46           | 4.98         | 9.13          | 11.84           |               |
|        | CV               | 7.03         | 4.84         | 8.91         | 7.30         | 4.78         | 11.82          | 4.00         | 5.76          | 5.25            |               |

**Table 4.5.11. Stalk Length (cm) at harvest**

| S. No. | Clone            | Faridkot      | Kapurthala    | Karnal        | Kota          | Lucknow       | Muzaffarnagar | Pantnagar     | Shahjahanpur  | Sriganaganagar | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| 1      | CoLk 17201       | 188.33        | 193.00        | 237.00        | 223.00        | 190.00        | 192.00        | 246.00        | 239.30        | 240.00         | <b>216.51</b> |
| 2      | CoLk 17202       | 159.33        | 182.50        | 222.00        | 193.00        | 188.00        | -             | 219.00        | 243.40        | 229.00         | <b>204.53</b> |
| 3      | CoLk 17203       | 191.11        | 192.10        | 225.00        | 178.00        | 164.00        | -             | 193.00        | 211.60        | 205.00         | <b>194.98</b> |
| 4      | CoPb 17211       | 187.00        | 257.60        | 207.00        | 210.00        | 167.00        | -             | 233.00        | 215.10        | 237.00         | <b>214.21</b> |
| 5      | CoPb 17212       | 258.55        | 214.30        | 263.00        | 190.00        | 168.00        | 238.00        | 256.00        | 233.00        | 277.00         | <b>233.09</b> |
| 6      | CoPant 17221     | 269.78        | 215.60        | 287.00        | 233.00        | 179.00        | 207.00        | 276.00        | 213.50        | 286.00         | <b>240.76</b> |
| 7      | CoS 17231        | 189.44        | 204.70        | 237.00        | 200.00        | 165.00        | 198.00        | 247.00        | 255.90        | 278.00         | <b>219.45</b> |
|        | <b>Standards</b> |               |               |               |               |               |               |               |               |                |               |
| 1      | CoJ 64           | 204.77        | 215.00        | 228.00        | 173.00        | 155.00        | 177.00        | 237.00        | 220.60        | 242.00         | <b>205.82</b> |
| 2      | Co 0238          | 209.55        | 234.90        | 273.00        | 232.00        | 176.00        | 194.00        | 262.00        | 241.60        | 278.00         | <b>233.45</b> |
| 3      | Co 05009         | 266.66        | 210.30        | 290.00        | 227.00        | 150.00        | 202.00        | 271.00        | 220.20        | 219.00         | <b>228.46</b> |
|        | <b>GM</b>        | <b>212.45</b> | <b>212.00</b> | <b>246.90</b> | <b>205.90</b> | <b>170.20</b> | <b>201.14</b> | <b>244.00</b> | <b>229.40</b> | <b>226.45</b>  | <b>219.13</b> |
|        | SE (m)           | 12.20         | 6.56          | 0.09          | 0.09          | 0.05          | 0.07          | 0.10          | 9.70          | 0.05           |               |
|        | CD               | 35.62         | 19.50         | 27.00         | 22.00         | 11.00         | 15.00         | 30.00         | 28.80         | 15.00          |               |
|        | CV               | 9.61          | 5.36          | 6.43          | 7.59          | 3.79          | 4.30          | 7.15          | 7.30          | 2.77           |               |

**Table 4.5.12. Stalk Diameter (cm) at harvest**

| S. No. | Clone            | Faridkot    | Kapur thala | Karnal      | Kota        | Lucknow     | Muzaffar nagar | Pant nagar  | Shahja hampur | Sriganaga nagar | Mean        |
|--------|------------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|-----------------|-------------|
| 1      | CoLk 17201       | 2.61        | 2.32        | 2.13        | 2.67        | 2.60        | 2.22           | 2.50        | 2.14          | 2.44            | <b>2.40</b> |
| 2      | CoLk 17202       | 2.68        | 2.43        | 2.08        | 2.37        | 2.60        | -              | 2.34        | 2.11          | 2.41            | <b>2.38</b> |
| 3      | CoLk 17203       | 2.21        | 2.19        | 1.94        | 1.90        | 2.09        | -              | 2.14        | 1.98          | 2.14            | <b>2.07</b> |
| 4      | CoPb 17211       | 3.24        | 2.32        | 2.73        | 2.60        | 2.23        | -              | 2.57        | 2.45          | 2.24            | <b>2.55</b> |
| 5      | CoPb 17212       | 2.52        | 2.61        | 2.17        | 2.33        | 2.39        | 2.35           | 2.46        | 2.20          | 2.51            | <b>2.39</b> |
| 6      | CoPant 17221     | 2.57        | 2.53        | 2.14        | 2.50        | 2.41        | 2.32           | 2.57        | 2.25          | 2.44            | <b>2.41</b> |
| 7      | CoS 17231        | 2.56        | 2.28        | 2.12        | 2.60        | 2.31        | 2.20           | 2.47        | 2.31          | 2.38            | <b>2.36</b> |
|        | <b>Standards</b> |             |             |             |             |             |                |             |               |                 |             |
| 1      | CoJ 64           | 2.64        | 2.12        | 2.20        | 2.17        | 2.29        | 2.26           | 2.11        | 2.14          | 2.64            | <b>2.29</b> |
| 2      | Co 0238          | 2.86        | 2.67        | 2.42        | 2.70        | 2.85        | 2.42           | 2.64        | 2.51          | 2.51            | <b>2.62</b> |
| 3      | Co 05009         | 2.57        | 2.30        | 2.12        | 2.33        | 2.26        | 2.18           | 2.11        | 2.26          | 2.54            | <b>2.30</b> |
|        | <b>GM</b>        | <b>2.65</b> | <b>2.38</b> | <b>2.21</b> | <b>2.42</b> | <b>2.40</b> | <b>2.28</b>    | <b>2.39</b> | <b>2.24</b>   | <b>2.43</b>     | <b>2.38</b> |
|        | SE (m)           | 0.08        | 0.16        | 0.09        | 0.09        | 0.09        | 0.06           | 0.08        | 0.05          | 0.15            |             |
|        | CD               | 0.24        | 0.14        | 0.28        | 0.22        | 0.18        | 0.13           | 0.23        | 0.16          | 0.45            |             |
|        | CV               | 5.56        | 3.40        | 7.31        | 6.71        | 4.34        | 3.26           | 5.66        | 4.24          | 3.20            |             |



**Table 4.5.13. Single Cane Weight (kg.) at harvest**

| S. No. | Clone            | Faridkot    | Kapur thala | Karnal      | Kota        | Lucknow     | Muzaffar nagar | Pant nagar  | Shahja hampur | Sriganaga nagar | Mean        |
|--------|------------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|-----------------|-------------|
| 1      | CoLk 17201       | 0.97        | 0.97        | 0.82        | 1.12        | 1.07        | 0.78           | 1.52        | 1.00          | 0.96            | <b>1.02</b> |
| 2      | CoLk 17202       | 0.79        | 0.87        | 0.93        | 1.20        | 0.91        | -              | 1.16        | 0.83          | 1.18            | <b>0.98</b> |
| 3      | CoLk 17203       | 0.64        | 0.92        | 0.65        | 0.93        | 0.71        | -              | 0.87        | 0.87          | 0.98            | <b>0.82</b> |
| 4      | CoPb 17211       | 1.20        | 1.00        | 1.16        | 1.23        | 0.68        | -              | 1.68        | 0.98          | 1.09            | <b>1.13</b> |
| 5      | CoPb 17212       | 1.22        | 1.09        | 1.01        | 1.02        | 0.85        | 0.92           | 1.55        | 0.89          | 1.15            | <b>1.08</b> |
| 6      | CoPant 17221     | 1.17        | 1.15        | 1.10        | 1.30        | 0.92        | 0.88           | 1.81        | 0.94          | 1.25            | <b>1.17</b> |
| 7      | CoS 17231        | 0.91        | 0.89        | 0.88        | 1.12        | 0.74        | 0.83           | 1.48        | 1.01          | 1.23            | <b>1.01</b> |
|        | <b>Standards</b> |             |             |             |             |             |                |             |               |                 |             |
| 1      | CoJ 64           | 0.89        | 0.82        | 0.83        | 1.04        | 0.75        | 0.62           | 1.03        | 0.83          | 1.20            | <b>0.89</b> |
| 2      | Co 0238          | 1.14        | 1.16        | 1.43        | 1.10        | 1.05        | 1.05           | 1.73        | 1.12          | 1.22            | <b>1.22</b> |
| 3      | Co 05009         | 1.18        | 0.898       | 1.13        | 1.05        | 0.676       | 0.725          | 1.43        | 0.87          | 1.08            |             |
|        | <b>GM</b>        | <b>1.01</b> | <b>0.98</b> | <b>0.99</b> | <b>1.11</b> | <b>0.83</b> | <b>0.83</b>    | <b>1.43</b> | <b>0.94</b>   | <b>1.13</b>     | <b>1.04</b> |
|        | SE (m)           | 0.08        | 0.06        | 0.03        | 0.05        | 0.05        | 0.02           | 0.03        | 0.03          | 0.05            |             |
|        | CD               | 0.25        | 0.172       | 0.09        | 0.11        | 0.11        | 0.04           | 0.1         | 0.09          | 0.16            |             |
|        | CV               | 14.37       | 10.29       | 5.41        | 7.47        | 7.44        | 2.76           | 3.84        | 5.55          | 2.65            |             |

**Table 4.5.14. CCS (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffa rnagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | CoLk 17201       | 9.87         | 9.71         | 10.06        | 10.28        | 11.01        | 10.45          | 11.39        | 8.52          | 8.58            | <b>9.99</b>  |
| 2      | CoLk 17202       | 10.15        | 10.75        | 10.10        | 10.58        | 10.40        | -              | 11.19        | 10.12         | 8.82            | <b>10.26</b> |
| 3      | CoLk 17203       | 9.86         | 10.40        | 10.00        | 10.27        | 10.53        | -              | 11.04        | 10.03         | 8.82            | <b>10.12</b> |
| 4      | CoPb 17211       | 8.45         | 8.25         | 8.25         | 9.10         | 10.79        | -              | 10.05        | 10.06         | 9.05            | <b>9.25</b>  |
| 5      | CoPb 17212       | 10.99        | 10.73        | 11.05        | 9.89         | 10.17        | 10.34          | 11.35        | 10.47         | 8.46            | <b>10.38</b> |
| 6      | CoPant 17221     | 8.73         | 11.23        | 8.56         | 10.7         | 8.91         | 10.66          | 11.03        | 10.9          | 8.98            | <b>9.97</b>  |
| 7      | CoS 17231        | 10.12        | 11.25        | 10.82        | 10.4         | 11.6         | 11.35          | 11.68        | 11.03         | 9.22            | <b>10.83</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 11.83        | 11.41        | 12.72        | 10.09        | 10.61        | 11.49          | 11.87        | 11.35         | 8.32            | <b>11.08</b> |
| 2      | Co 0238          | 10.03        | 9.56         | 11.75        | 11.11        | 10.96        | 11.25          | 11.68        | 11.11         | 8.37            | <b>10.65</b> |
| 3      | Co 05009         | 10.84        | 11.56        | 11.79        | 10.32        | 10.85        | 11.19          | 11.31        | 10.85         | 8.16            | <b>10.76</b> |
|        | <b>GM</b>        | <b>10.09</b> | <b>10.48</b> | <b>10.51</b> | <b>10.27</b> | <b>10.58</b> | <b>10.96</b>   | <b>11.26</b> | <b>10.44</b>  | <b>8.68</b>     | <b>10.33</b> |
|        | SE (m)           | 0.15         | 0.15         | 0.20         | 0.20         | 0.63         | 0.24           | 0.17         | 0.20          | 0.35            |              |
|        | CD               | 0.42         | 0.45         | 0.60         | 0.48         | 1.32         | 0.51           | 0.52         | 0.59          | 1.06            |              |
|        | CV               | 2.42         | 2.51         | 3.27         | 3.35         | 7.26         | 2.64           | 2.65         | 3.27          | 5.26            |              |

**Table 4.5.15. Sucrose (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | CoLk 17201       | 14.68        | 14.57        | 15.06        | 15.13        | 15.96        | 15.32          | 16.78        | 12.82         | 12.79           | <b>14.79</b> |
| 2      | CoLk 17202       | 14.84        | 15.67        | 15.01        | 15.53        | 15.28        | -              | 16.66        | 14.94         | 13.11           | <b>15.13</b> |
| 3      | CoLk 17203       | 14.50        | 15.22        | 14.78        | 15.12        | 15.39        | -              | 16.39        | 14.95         | 12.86           | <b>14.90</b> |
| 4      | CoPb 17211       | 12.65        | 12.53        | 13.04        | 13.54        | 15.81        | -              | 14.95        | 14.98         | 13.42           | <b>13.87</b> |
| 5      | CoPb 17212       | 15.75        | 15.41        | 15.99        | 14.60        | 15.06        | 15.23          | 16.84        | 15.51         | 12.26           | <b>15.18</b> |
| 6      | CoPant 17221     | 12.90        | 16.21        | 13.15        | 15.70        | 13.58        | 15.58          | 16.25        | 16.06         | 13.12           | <b>14.73</b> |
| 7      | CoS 17231        | 14.73        | 16.08        | 15.84        | 15.29        | 16.78        | 16.59          | 17.28        | 16.24         | 13.60           | <b>15.83</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 16.92        | 16.42        | 18.39        | 14.88        | 15.56        | 16.86          | 17.65        | 16.66         | 12.01           | <b>16.15</b> |
| 2      | Co 0238          | 14.85        | 14.00        | 17.17        | 16.25        | 16.05        | 16.62          | 17.35        | 16.21         | 12.51           | <b>15.67</b> |
| 3      | Co 05009         | 15.57        | 16.61        | 16.89        | 15.19        | 15.66        | 16.45          | 16.83        | 16.00         | 12.34           | <b>15.73</b> |
|        | <b>GM</b>        | <b>14.74</b> | <b>15.27</b> | <b>15.53</b> | <b>15.12</b> | <b>15.51</b> | <b>16.09</b>   | <b>16.70</b> | <b>15.44</b>  | <b>12.80</b>    | <b>15.20</b> |
|        | SE (m)           | 0.21         | 0.19         | 0.23         | 0.27         | 0.86         | 0.31           | 0.23         | 0.25          | 0.48            |              |
|        | CD               | 0.6          | 0.58         | 0.69         | 0.65         | NS           | 0.69           | 0.68         | 0.76          | 1.45            |              |
|        | CV               | 2.35         | 2.21         | 2.58         | 3.08         | 6.83         | 2.4            | 2.36         | 2.86          | 4.59            |              |

**Table 4.5.16. Brix (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | CoLk 17201       | 17.57        | 17.77        | 18.25        | 17.75        | 18.15        | 17.90          | 19.73        | 15.69         | 15.39           | <b>17.58</b> |
| 2      | CoLk 17202       | 17.17        | 18.03        | 17.91        | 18.13        | 17.86        | -              | 20.00        | 17.61         | 15.67           | <b>17.80</b> |
| 3      | CoLk 17203       | 17.00        | 17.67        | 17.47        | 17.73        | 17.81        | -              | 19.57        | 17.98         | 14.80           | <b>17.50</b> |
| 4      | CoPb 17211       | 15.33        | 15.60        | 17.38        | 16.20        | 18.38        | -              | 17.93        | 17.97         | 15.99           | <b>16.85</b> |
| 5      | CoPb 17212       | 17.50        | 17.20        | 18.11        | 17.23        | 17.89        | 17.89          | 20.07        | 18.44         | 13.95           | <b>17.59</b> |
| 6      | CoPant 17221     | 15.27        | 18.27        | 16.72        | 18.30        | 17.02        | 18.02          | 19.10        | 18.87         | 15.17           | <b>17.42</b> |
| 7      | CoS 17231        | 16.90        | 17.77        | 18.39        | 17.90        | 18.99        | 19.19          | 20.50        | 19.07         | 16.01           | <b>18.30</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 18.70        | 18.40        | 20.80        | 17.50        | 18.13        | 19.65          | 21.10        | 19.45         | 13.53           | <b>18.58</b> |
| 2      | Co 0238          | 17.63        | 16.25        | 19.87        | 18.83        | 18.64        | 19.65          | 20.73        | 18.70         | 15.13           | <b>18.38</b> |
| 3      | Co 05009         | 17.37        | 18.53        | 18.72        | 17.80        | 17.65        | 19.25          | 20.17        | 18.85         | 15.25           | <b>18.18</b> |
|        | <b>GM</b>        | <b>17.04</b> | <b>17.54</b> | <b>18.36</b> | <b>17.73</b> | <b>18.05</b> | <b>18.79</b>   | <b>19.89</b> | <b>18.26</b>  | <b>15.09</b>    | <b>17.82</b> |
|        | SE (m)           | 0.24         | 0.18         | 0.17         | 0.26         | 1.15         | 0.36           | 0.23         | 0.28          | 0.35            |              |
|        | CD               | 0.70         | 0.55         | 0.50         | 0.63         | NS           | 0.79           | 0.68         | 0.85          | 1.04            |              |
|        | CV               | 2.39         | 1.84         | 1.57         | 2.55         | 7.79         | 2.37           | 1.96         | 2.70          | 2.75            |              |

**Table 4.5.17 Purity (%) at 240 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | CoLk 17201       | 83.55        | 82.02        | 82.53        | 85.25        | 86.34        | 85.57          | 85.04        | 81.74         | 83.13           | <b>83.91</b> |
| 2      | CoLk 17202       | 86.44        | 86.89        | 83.77        | 85.63        | 85.51        | -              | 83.30        | 84.92         | 83.66           | <b>85.02</b> |
| 3      | CoLk 17203       | 85.31        | 86.16        | 84.58        | 85.23        | 86.52        | -              | 83.77        | 83.15         | 86.87           | <b>85.20</b> |
| 4      | CoPb 17211       | 82.53        | 80.33        | 75.04        | 83.54        | 86.02        | -              | 83.38        | 83.32         | 83.93           | <b>82.26</b> |
| 5      | CoPb 17212       | 90.00        | 89.60        | 88.30        | 84.72        | 84.15        | 85.13          | 83.90        | 84.12         | 87.89           | <b>86.42</b> |
| 6      | CoPant 17221     | 84.51        | 88.73        | 78.62        | 85.79        | 80.62        | 86.47          | 85.08        | 85.11         | 86.49           | <b>84.60</b> |
| 7      | CoS 17231        | 87.16        | 90.50        | 86.11        | 85.39        | 88.39        | 86.44          | 84.30        | 85.13         | 84.95           | <b>86.49</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 90.48        | 89.24        | 88.42        | 85.01        | 85.57        | 85.78          | 83.63        | 85.67         | 88.77           | <b>86.95</b> |
| 2      | Co 0238          | 84.24        | 86.15        | 86.40        | 86.29        | 86.16        | 86.26          | 83.68        | 86.74         | 82.68           | <b>85.40</b> |
| 3      | Co 05009         | 89.68        | 89.62        | 90.20        | 85.31        | 88.78        | 85.46          | 83.44        | 84.88         | 80.92           | <b>86.48</b> |
|        | <b>GM</b>        | <b>86.39</b> | <b>86.92</b> | <b>84.40</b> | <b>85.21</b> | <b>85.81</b> | <b>85.87</b>   | <b>83.95</b> | <b>84.48</b>  | <b>84.93</b>    | <b>85.27</b> |
|        | SE (m)           | 0.40         | 0.50         | 0.80         | 0.27         | 2.57         | 0.47           | 0.43         | 0.83          | 1.21            |              |
|        | CD               | 1.17         | 1.48         | 2.41         | 0.65         | NS           | NS             | NS           | 2.47          | 3.62            |              |
|        | CV               | 0.80         | 0.99         | 1.65         | 0.55         | 3.66         | 0.67           | 0.88         | 1.71          | 5.09            |              |

**Table 4.5.18. Number of Shoots ('000/ha) at 240 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar | Shahja hanpur | Sriganaga nagar | Mean          |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|-----------------|---------------|
| 1      | CoLk 17201       | 93.67        | 85.14        | 97.38        | 85.00        | 96.60        | -              | -          | -             | -               | <b>91.56</b>  |
| 2      | CoLk 17202       | 81.33        | 90.13        | 83.18        | 84.63        | 86.93        | -              | -          | -             | -               | <b>85.24</b>  |
| 3      | CoLk 17203       | 136.57       | 101.19       | 131.17       | 84.63        | 105.97       | -              | -          | -             | -               | <b>111.91</b> |
| 4      | CoPb 17211       | 53.70        | 89.44        | 66.51        | 84.26        | 60.19        | -              | -          | -             | -               | <b>70.82</b>  |
| 5      | CoPb 17212       | 98.77        | 77.4         | 91.36        | 81.3         | 76.85        | -              | -          | -             | -               | <b>85.14</b>  |
| 6      | CoPant 17221     | 122.53       | 78.25        | 83.64        | 72.22        | 91.46        | -              | -          | -             | -               | <b>89.62</b>  |
| 7      | CoS 17231        | 80.86        | 96.62        | 105.09       | 84.07        | 92.18        | -              | -          | -             | -               | <b>91.76</b>  |
|        | <b>Standards</b> |              |              |              |              |              |                |            |               |                 |               |
| 1      | CoJ 64           | 96.60        | 99.72        | 108.49       | 72.41        | 89.09        | -              | -          | -             | -               | <b>93.26</b>  |
| 2      | Co 0238          | 108.33       | 84.96        | 81.48        | 75.37        | 82.72        | -              | -          | -             | -               | <b>86.57</b>  |
| 3      | Co 05009         | 104.32       | 87.41        | 98.46        | 72.59        | 84.77        | -              | -          | -             | -               | <b>89.51</b>  |
|        | <b>GM</b>        | <b>97.67</b> | <b>89.03</b> | <b>94.68</b> | <b>79.64</b> | <b>86.68</b> | -              | -          | -             | -               | <b>89.54</b>  |
|        | SE (m)           | 5.12         | 2.49         | 4.87         | 4.04         | 3.09         | -              | -          | -             | -               |               |
|        | CD               | 14.94        | 7.39         | 14.58        | 9.69         | 6.49         | -              | -          | -             | -               |               |
|        | CV               | 8.55         | 4.84         | 8.91         | 8.79         | 4.36         | -              | -          | -             | -               |               |

**Table 4.5.19. Number of Tillers ('000/ha) at 120 days**

| S. No. | Clone            | Faridkot      | Kapur thala  | Karnal        | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hanpur | Sriganaga nagar | Mean          |
|--------|------------------|---------------|--------------|---------------|--------------|--------------|----------------|--------------|---------------|-----------------|---------------|
| 1      | CoLk 17201       | 106.94        | 88.67        | 152.47        | 105.19       | 99.28        | 162.22         | 84.67        | 190.19        | 149.55          | <b>126.58</b> |
| 2      | CoLk 17202       | 90.43         | 94.54        | 118.36        | 103.89       | 90.53        | -              | 73.00        | 191.67        | 130.70          | <b>111.64</b> |
| 3      | CoLk 17203       | 148.92        | 105.39       | 154.48        | 100.56       | 108.64       | -              | 110.67       | 182.59        | 117.82          | <b>128.63</b> |
| 4      | CoPb 17211       | 66.20         | 93.15        | 111.11        | 103.33       | 64.40        | -              | 78.00        | 180.37        | 125.08          | <b>102.71</b> |
| 5      | CoPb 17212       | 110.80        | 80.61        | 85.49         | 98.89        | 81.38        | 160.18         | 76.33        | 187.22        | 117.72          | <b>110.96</b> |
| 6      | CoPant 17221     | 127.01        | 81.50        | 126.23        | 91.67        | 93.62        | 180.92         | 75.33        | 185.93        | 110.74          | <b>119.22</b> |
| 7      | CoS 17231        | 87.96         | 100.63       | 157.56        | 103.52       | 97.22        | 192.03         | 96.00        | 205.37        | 117.95          | <b>128.69</b> |
|        | <b>Standards</b> |               |              |               |              |              |                |              |               |                 |               |
| 1      | CoJ 64           | 106.79        | 103.86       | 146.6         | 77.96        | 91.05        | 174.25         | 145.33       | 197.59        | 134.15          | <b>130.84</b> |
| 2      | Co 0238          | 125.31        | 88.48        | 131.64        | 83.33        | 87.65        | 145.92         | 82.00        | 194.26        | 118.76          | <b>117.48</b> |
| 3      | Co 05009         | 122.38        | 91.04        | 124.85        | 81.85        | 88.37        | 170.74         | 81.00        | 172.78        | 124.80          | <b>117.53</b> |
|        | <b>GM</b>        | <b>109.27</b> | <b>92.79</b> | <b>130.88</b> | <b>95.01</b> | <b>90.22</b> | <b>169.47</b>  | <b>90.23</b> | <b>188.8</b>  | <b>124.73</b>   | <b>119.43</b> |
|        | SE (m)           | 5.97          | 2.63         | 7.9           | 5.2          | 3.15         | 3.05           | 2.02         | 5.56          | 1.67            |               |
|        | CD               | 17.43         | 7.80         | 23.66         | 12.46        | 6.62         | 6.40           | 6.03         | 16.53         | 5.02            |               |
|        | CV               | 9.21          | 4.90         | 10.46         | 9.47         | 4.28         | 5.66           | 3.87         | 5.10          | 5.42            |               |

**Table 4.5.20. Germination (%) at 45 days**

| S. No. | Clone            | Faridkot     | Kapur thala  | Karnal       | Kota         | Lucknow      | Muzaffar nagar | Pant nagar   | Shahja hampur | Sriganaga nagar | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----------------|--------------|
| 1      | CoLk 17201       | 39.09        | 53.98        | 57.87        | 47.28        | 38.12        | 42.28          | 42.75        | 47.78         | 47.72           | <b>46.32</b> |
| 2      | CoLk 17202       | 21.69        | 51.27        | 51.24        | 45.35        | 31.56        | -              | 44.91        | 50.42         | 45.49           | <b>42.74</b> |
| 3      | CoLk 17203       | 29.49        | 45.72        | 59.17        | 42.89        | 33.56        | -              | 43.29        | 45.83         | 36.93           | <b>42.11</b> |
| 4      | CoPb 17211       | 21.60        | 53.20        | 46.08        | 46.95        | 26.00        | -              | 40.35        | 45.14         | 39.22           | <b>39.82</b> |
| 5      | CoPb 17212       | 31.38        | 49.07        | 36.93        | 44.23        | 32.02        | 38.33          | 39.82        | 48.19         | 45.48           | <b>40.61</b> |
| 6      | CoPant 17221     | 39.35        | 52.43        | 51.29        | 48.69        | 30.79        | 45.83          | 37.65        | 45.69         | 43.21           | <b>43.88</b> |
| 7      | CoS 17231        | 26.49        | 54.05        | 59.23        | 47.97        | 31.02        | 48.75          | 43.13        | 56.53         | 45.85           | <b>45.89</b> |
|        | <b>Standards</b> |              |              |              |              |              |                |              |               |                 |              |
| 1      | CoJ 64           | 30.18        | 50.46        | 61.17        | 42.32        | 31.17        | 38.61          | 52.85        | 48.47         | 44.12           | <b>44.37</b> |
| 2      | Co 0238          | 39.35        | 48.61        | 56.13        | 43.86        | 34.65        | 41.84          | 47.07        | 50.14         | 45.63           | <b>45.25</b> |
| 3      | Co 05009         | 36.87        | 50.93        | 56.02        | 41.74        | 28.78        | 35.41          | 40.74        | 41.94         | 42.35           | <b>41.64</b> |
|        | <b>GM</b>        | <b>31.55</b> | <b>50.97</b> | <b>53.51</b> | <b>45.12</b> | <b>31.77</b> | <b>41.58</b>   | <b>43.26</b> | <b>48.01</b>  | <b>43.60</b>    | <b>43.26</b> |
|        | SE (m)           | 1.26         | 5.05         | 1.25         | 2.12         | 0.96         | 3.14           | 2.08         | 1.28          | 1.56            |              |
|        | CD               | 3.66         | NS           | 3.73         | 5.08         | 2.01         | 6.85           | 6.23         | 3.80          | 4.68            |              |
|        | CV               | 6.81         | 17.16        | 4.04         | 8.13         | 3.70         | 9.33           | 8.33         | 4.61          | 4.56            |              |



**Table 4.5.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S. No | Genotype     | Lucknow * | Shahjahan pur | Pantnagar | Muzaffar nagar | Karnal | Uchani | Kapurthala | Faridkot | Sriganganagar | Kota   |
|-------|--------------|-----------|---------------|-----------|----------------|--------|--------|------------|----------|---------------|--------|
| 1     | CoLk 17201   |           | Better        | Better    | Better         | Poor   | NA     | Poor       | Poor     | On par        | On par |
| 2     | CoLk 17202   |           | Poor          | Poor      | NG             | Poor   | NA     | Poor       | Poor     | Better        | Better |
| 3     | CoLk 17203   |           | On par        | Poor      | NG             | Poor   | NA     | Poor       | Poor     | Poor          | On par |
| 4     | CoPant 17221 |           | On par        | On par    | On par         | Poor   | NA     | On par     | On par   | Poor          | Better |
| 5     | CoPb 17211   |           | On par        | Poor      | NG             | Poor   | NA     | Poor       | Poor     | On par        | Poor   |
| 6     | CoPb 17212   |           | Better        | On par    | Better         | On par | NA     | On par     | On par   | Better        | Better |
| 7     | CoS 17231    |           | Better        | Poor      | Better         | On par | NA     | Poor       | Poor     | On par        | Better |
|       | Standards    |           |               |           |                |        |        |            |          |               |        |
| 1     | CoJ 64       |           | II            | III       | III            | III    | NA     | III        | III      | III           | III    |
| 2     | Co 0238      |           | Best          | Best      | Best           | Best   | NA     | Best       | II       | Best          | Best   |
| 3     | Co 05009     |           | III           | II        | II             | II     | NA     | II         | Best     | II            | II     |

**NA=Not allotted; \*Poor trial not assessed**

#### 4.6 ADVANCED VARIETAL TRIAL (MIDLATE) - II PLANT

|               |  |
|---------------|--|
| Centres (9)   | Faridkot, Kapurthala, Kota, Lucknow, Muzaffarnagar, Pantnagar, Shahjahanpur, Sriganaganagar and Uchani |
| Entries (7)   | Co 15026, CoLk 15206, CoLk 15207, CoLk 15209, CoPb 15213, CoS 15232 and CoS 15233.                     |
| Standards (3) | CoS 767, CoPant 97222, Co 05011  |
| Design        | RBD  |
| Replications  | 3  |
| Plot size     | Gross : 8 rows × 6 m × 0.90 m<br>Net : 6 rows × 5 m × 0.90 m   |
| Seed rate     | 12 buds / metre  |
| Planting time | February / March, 2020   |
| Crop Duration | 12 months  |

**Results of the previous year:** In AVT-I Plant trial, CoPant 97222 was identified as the best standard in the zone for CCS yield (11.58 t/ha) and cane yield (89.27 t/ha). Two test entries viz., CoS 15232 (12.29 t/ha) and Co 15026 (11.87 t/ha) recorded numerically higher CCS yield than CoPant 97222. For cane yield, CoS 15232 (95.60 t/ha), CoS 15233 (92.67 t/ha) and Co 15026 (92.52 t/ha) registered numerically higher cane yield than the best standard. However, none of these superior entries recorded >10 percent improvement either for CCS yield or for cane yield over the best standard. For CCS%, five test entries namely, CoLk 15207 (13.01%), Co 15026 (12.99%), CoLk 15209 (12.88%), CoS 15232 (12.84%) and CoLk 15206 (12.82%) exhibited numerically higher values than the best standard, CoPant 97222 (12.78%). Similarly for sucrose%, five test entries namely, CoLk 15207 (18.92%), Co 15026 (18.57%), CoLk 15206 (18.44%), CoLk 15209 (18.42%) and CoPb 15213 (18.32%) recorded the numerically higher values than the standard CoPant 97222. Nonetheless, the percent improvement in these clones for CCS% and or sucrose% over the best standard CoPant 97222 were lesser than 5%.

**Results of the current year:** CoPant 97222 was the best standard in the zone for CCS yield (11.82 t/ha) as well as cane yield (92.02 t/ha). The test entry, CoS 15233 alone recorded > 10% improvement over the best standard for the CCS yield (13.48 t/ha) as well as cane yield (109.02 t/ha). For juice quality traits, Co 05011 was the best standard which recorded CCS% and sucrose % values of 13.03 and 18.79, respectively. Test entry CoLk 15207 recorded numerically higher CCS% (13.42) as well as sucrose % (19.29) than the best standard. However, none of the test entries showed > 5 percent improvement either for CCS% or sucrose % over Co 05011. Further details are given presented in Tables 4. 6.1 to 4.6.19.

**Qualifying entry identified:** None

**Table 4.6.1. CCS (t/ha) at harvest**

| Sl. No   | Entry        | Faridkot | Kapur -thala | Kota      | Lucknow    | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Uchani | Mean      | Rank |
|--|--------------|----------|--------------|-----------|------------|-----------------|-------------|----------------|-----------------|--------|-----------|------|
| 1  | Co 15026     | 16.27    | 10.91        | 9.23      | 10.90      | 10.67           | 13.12       | 12.00          | 14.11           | 10.29  | 11.94     |      |
| 2  | CoLk 15206   | 14.25    | 10.81        | 8.45      | 14.33      | 10.75           | 13.64       | 12.68          | 14.32           | 11.93  | 12.35     | 3    |
| 3  | CoLk 15207   | 12.08    | 12.60        | 9.31      | 15.73      | 10.89           | 10.93       | 13.42          | 14.19           | 10.33  | 12.16     |      |
| 4  | CoLk 15209   | 11.07    | 9.34         | 9.48      | 9.98       | 9.73            | 12.89       | 10.37          | 15.21           | 10.72  | 10.98     |      |
| 5  | CoPb 15213   | 15.50    | 11.46        | 8.80      | 11.10      | 8.83            | 11.95       | 12.40          | 15.31           | 9.64   | 11.67     |      |
| 6  | CoS 15232    | 15.49    | 11.98        | 12.00     | 11.12      | 11.76           | 14.11       | 13.37          | 14.45           | 11.31  | 12.84     | 2    |
| 7  | CoS 15233    | 15.50    | 10.99        | 11.53     | 12.13      | 12.77           | 17.96       | 12.26          | 15.99           | 12.19  | 13.48     | 1    |
|  | Standards    |          |              |           |            |                 |             |                |                 |        |           |      |
| 1  | CoS 767      | 12.74    | 10.27        | 8.46      | 10.65      | 9.04            | 9.09        | 10.86          | 16.64           | 10.50  | 10.92     |      |
| 2  | CoPant 97222 | 17.54    | 8.28         | 9.44      | 9.98       | 10.02           | 15.12       | 10.80          | 14.46           | 10.75  | 11.82     |      |
| 3  | Co 05011     | 16.50    | 8.98         | 9.20      | 11.33      | 8.63            | 16.33       | 10.53          | 13.35           | 11.24  | 11.79     |      |
|  | Mean         | 14.73    | 10.56        | 9.59      | 11.73      | 10.27           | 13.52       | 11.87          | 14.80           | 10.89  | 12.00     |      |
|  | SE (m)       | 0.74     | 0.29         | 0.65      | 0.92       | 0.27            | 0.66        | 0.43           | 0.14            | 0.50   |           |      |
|  | CD at 5%     | 2.17     | 0.87         | 1.55      | 1.94       | 0.56            | 1.96        | 1.28           | 0.42            | 1.49   |           |      |
|  | CV           | 8.71     | 4.81         | 11.70     | 9.64       | 8.52            | 8.39        | 6.27           | 10.23           | 7.89   |           |      |
| <b>Top three entries recorded &gt; 10% improvement over the best standard at each location</b> |              |          |              |           |            |                 |             |                |                 |        |           |      |
|  | Rank-1       |          | CoLk 15207   | CoS 15232 | CoLk 15207 | CoS 15233       |             | CoLk 15207     |                 |        | CoS 15233 |      |
|  | Rank-2       |          | CoS 15232    | CoS 15233 | CoLk 15206 | CoS 15232       |             | CoS 15232      |                 |        |           |      |
|  | Rank-3       |          | CoPb 15213   |           |            |                 |             | CoLk 15206     |                 |        |           |      |

**Number of locations where an entry recorded > 10% improvement over the best standard:** CoS 15232 (4), CoLk 15207 (3), CoLk 15206 (2), CoS 15233 (2) and CoPb 15213 (1).

**Performance of the entries across locations:** CoPant 97222 was identified as the best among the standards in the zone for CCS yield (11.82 t/ha). Test entry, CoS 15233 (13.48 t/ha) alone recorded > 10% improvement over the best standard for the CCS yield.

Table 4.6.2. Cane yield (t/ha) at harvest

| Sl. No   | Entry        | Faridkot | Kapur -thala | Kota       | Lucknow    | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Uchani | Mean      | Rank |
|--|--------------|----------|--------------|------------|------------|-----------------|-------------|----------------|-----------------|--------|-----------|------|
| 1  | Co 15026     | 117.28   | 84.66        | 80.23      | 77.24      | 85.43           | 98.37       | 86.68          | 119.82          | 77.57  | 91.92     |      |
| 2  | CoLk 15206   | 101.54   | 89.10        | 79.30      | 98.48      | 86.30           | 100.17      | 91.31          | 113.65          | 90.69  | 94.50     | 3    |
| 3  | CoLk 15207   | 84.26    | 95.99        | 73.72      | 102.95     | 87.16           | 78.78       | 95.63          | 113.03          | 83.05  | 90.51     |      |
| 4  | CoLk 15209   | 79.63    | 74.14        | 89.33      | 72.55      | 78.39           | 97.83       | 77.74          | 118.59          | 85.88  | 86.01     |      |
| 5  | CoPb 15213   | 119.44   | 90.96        | 76.10      | 81.25      | 71.35           | 92.93       | 89.19          | 120.44          | 80.31  | 91.33     |      |
| 6  | CoS 15232    | 111.42   | 98.62        | 99.95      | 76.04      | 94.19           | 106.74      | 98.32          | 123.65          | 90.83  | 99.97     | 2    |
| 7  | CoS 15233    | 123.15   | 91.30        | 99.88      | 91.52      | 102.35          | 139.98      | 95.68          | 135.87          | 101.44 | 109.02    | 1    |
|  | Standards    |          |              |            |            |                 |             |                |                 |        |           |      |
| 1  | CoS 767      | 91.05    | 83.99        | 73.30      | 74.94      | 73.21           | 69.60       | 83.11          | 134.64          | 90.33  | 86.02     |      |
| 2  | CoPant 97222 | 125.00   | 63.44        | 79.42      | 69.51      | 80.49           | 117.07      | 78.67          | 121.06          | 93.55  | 92.02     |      |
| 3  | Co 05011     | 118.21   | 71.73        | 76.01      | 79.59      | 70.25           | 123.67      | 76.17          | 108.09          | 89.16  | 90.32     |      |
|  | Mean         | 107.23   | 84.39        | 82.72      | 82.41      | 82.95           | 102.51      | 87.25          | 120.88          | 88.28  | 93.18     |      |
|  | SE (m)       | 5.67     | 2.05         | 5.36       | 3.86       | 2.29            | 4.50        | 3.24           | 2.45            | 3.23   |           |      |
|  | CD at 5%     | 16.62    | 6.08         | 12.85      | 8.12       | 4.81            | 13.48       | 9.62           | 7.36            | 9.68   |           |      |
|  | CV           | 9.15     | 4.20         | 11.22      | 5.74       | 9.13            | 7.61        | 6.43           | 11.54           | 6.34   |           |      |
| <b>Top three entries recorded &gt; 10% improvement over the best standard at each location</b> |              |          |              |            |            |                 |             |                |                 |        |           |      |
|  | Rank-1       |          | CoS 15232    | CoS 15232  | CoLk 15207 | CoS 15233       | CoS 15233   | CoS 15232      |                 |        | CoS 15233 |      |
|  | Rank-2       |          | CoLk 15207   | CoS 15233  | CoLk 15206 | CoS 15232       |             | CoS 15233      |                 |        |           |      |
|  | Rank-3       |          |              | CoLk 15209 | CoS 15233  |                 |             | CoLk 15207     |                 |        |           |      |

Number of locations where an entry recorded > 10% improvement over the best standard: CoS 15233 (5), CoS 15232 (4), CoLk 15207 (3), CoLk 15206 (1) and CoLk 15209 (1).

Performance of the entries across locations: Among the standards, CoPant 97222 recorded the highest cane yield (92.02 t/ha) in the zone. Test entry, CoS 15233 (109.02 t/ha) showed > 10% improvement over the best standard for cane yield.

**Table 4.6.3. CCS (%) at harvest**

| Sl. No  | Entry        | Faridkot | Kapur -thala | Kota  | Lucknow    | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Uchani   | Mean  | Rank |
|---|--------------|----------|--------------|-------|------------|-----------------|-------------|----------------|-----------------|----------|-------|------|
| 1   | Co 15026     | 13.88    | 12.90        | 11.52 | 13.95      | 12.50           | 13.31       | 13.84          | 11.77           | 13.28    | 12.99 |      |
| 2   | CoLk 15206   | 14.04    | 12.12        | 10.65 | 14.54      | 12.45           | 13.61       | 13.88          | 12.60           | 13.15    | 13.00 | 3    |
| 3   | CoLk 15207   | 14.33    | 13.12        | 12.63 | 15.37      | 12.48           | 13.87       | 14.04          | 12.55           | 12.40    | 13.42 | 1    |
| 4   | CoLk 15209   | 13.90    | 12.60        | 10.63 | 13.61      | 12.41           | 13.17       | 13.36          | 12.83           | 12.48    | 12.78 |      |
| 5   | CoPb 15213   | 12.98    | 12.60        | 11.57 | 13.49      | 12.38           | 12.87       | 13.90          | 12.71           | 12.02    | 12.72 |      |
| 6   | CoS 15232    | 13.89    | 12.14        | 12.00 | 15.03      | 12.49           | 13.24       | 13.60          | 11.69           | 12.45    | 12.95 |      |
| 7   | CoS 15233    | 12.59    | 12.05        | 11.57 | 13.07      | 12.48           | 12.83       | 12.81          | 11.77           | 12.01    | 12.35 |      |
|   | Standards    |          |              |       |            |                 |             |                |                 |          |       |      |
| 1   | CoS 767      | 13.99    | 12.24        | 11.54 | 14.09      | 12.36           | 12.90       | 13.07          | 12.36           | 11.63    | 12.69 |      |
| 2   | CoPant 97222 | 14.04    | 13.06        | 11.90 | 14.28      | 12.44           | 13.06       | 13.74          | 11.95           | 11.50    | 12.89 |      |
| 3   | Co 05011     | 13.97    | 12.51        | 12.10 | 14.35      | 12.29           | 13.21       | 13.84          | 12.35           | 12.61    | 13.03 | 2    |
|   | Mean         | 13.77    | 12.53        | 11.61 | 14.18      | 12.43           | 13.21       | 13.61          | 12.26           | 12.35    | 12.88 |      |
|   | SE (m)       | 0.13     | 0.20         | 0.18  | 0.74       | 0.16            | 0.19        | 0.18           | 0.12            | 0.28     |       |      |
|   | CD at 5%     | 0.38     | 0.60         | 0.43  | NS         | NS              | 0.55        | 0.52           | 0.36            | 0.83     |       |      |
|   | CV           | 1.63     | 2.79         | 2.67  | 6.41       | 1.58            | 2.42        | 2.24           | 2.18            | 3.88     |       |      |
| <b>Top three entries recorded &gt; 5% improvement over the best standard at each location</b> |              |          |              |       |            |                 |             |                |                 |          |       |      |
|   | Rank-1       |          |              |       | CoLk 15207 |                 |             |                |                 | Co 15026 |       |      |
|   | Rank-2       |          |              |       |            |                 |             |                |                 |          |       |      |
|   | Rank-3       |          |              |       |            |                 |             |                |                 |          |       |      |

**Number of locations where an entry recorded > 5 percent improvement over the best standards:** Co 15026 (1) and CoLk 15207 (1).

**Performance of the entries across locations:** The best standard Co 05011 recorded 13.03% CCS in the zone. Test entry CoLk 15207 recorded numerically higher CCS% (13.42). However, none of the test entries showed > 5 percent improvement over the best standard.

**Table 4.6.4. Sucrose (%) at harvest**

| Sl. No  | Entry        | Faridkot | Kapur -thala | Kota  | Lucknow    | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Uchani     | Mean  | Rank |
|---|--------------|----------|--------------|-------|------------|-----------------|-------------|----------------|-----------------|------------|-------|------|
| 1   | Co 15026     | 19.72    | 18.37        | 16.80 | 19.94      | 18.16           | 19.32       | 19.97          | 17.08           | 19.03      | 18.71 |      |
| 2   | CoLk 15206   | 19.81    | 17.54        | 15.63 | 20.86      | 18.11           | 19.69       | 20.01          | 18.27           | 18.95      | 18.76 | 3    |
| 3   | CoLk 15207   | 20.27    | 18.80        | 18.31 | 21.93      | 18.13           | 20.13       | 20.21          | 18.05           | 17.75      | 19.29 | 1    |
| 4   | CoLk 15209   | 19.63    | 18.05        | 15.60 | 19.67      | 18.03           | 19.14       | 19.28          | 18.49           | 17.96      | 18.43 |      |
| 5   | CoPb 15213   | 18.58    | 18.08        | 16.87 | 19.88      | 18.05           | 18.67       | 20.04          | 18.33           | 17.40      | 18.43 |      |
| 6   | CoS 15232    | 19.69    | 17.28        | 17.45 | 21.54      | 18.12           | 19.17       | 19.42          | 16.95           | 17.97      | 18.62 |      |
| 7   | CoS 15233    | 18.07    | 17.24        | 16.87 | 18.76      | 18.08           | 18.59       | 18.55          | 17.17           | 17.26      | 17.84 |      |
|   | Standards    |          |              |       |            |                 |             |                |                 |            |       |      |
| 1   | CoS 767      | 19.76    | 17.54        | 16.84 | 20.06      | 17.97           | 18.60       | 18.91          | 17.89           | 16.85      | 18.27 |      |
| 2   | CoPant 97222 | 19.93    | 18.63        | 17.32 | 20.65      | 17.99           | 18.89       | 19.84          | 17.63           | 16.75      | 18.63 |      |
| 3   | Co 05011     | 19.78    | 17.95        | 17.59 | 20.80      | 17.90           | 19.18       | 19.94          | 17.98           | 18.03      | 18.79 | 2    |
|   | Mean         | 19.53    | 17.95        | 16.93 | 20.41      | 18.05           | 19.14       | 19.62          | 17.78           | 17.79      | 18.58 |      |
|   | SE (m)       | 0.17     | 0.29         | 0.24  | 0.94       | 0.18            | 0.24        | 0.27           | 0.14            | 0.34       |       |      |
|   | CD at 5%     | 0.50     | 0.87         | 0.58  | NS         | NS              | 0.72        | 0.80           | 0.43            | 1.02       |       |      |
|   | CV           | 1.50     | 2.83         | 2.48  | 5.62       | 1.22            | 2.18        | 2.39           | 1.14            | 3.32       |       |      |
| <b>Top three entries recorded &gt; 5% improvement over the best standard at each location</b> |              |          |              |       |            |                 |             |                |                 |            |       |      |
|   | Rank-1       |          |              |       | CoLk 15207 |                 |             |                |                 | Co 15026   |       |      |
|   | Rank-2       |          |              |       |            |                 |             |                |                 | CoLk 15206 |       |      |
|   | Rank-3       |          |              |       |            |                 |             |                |                 |            |       |      |

**Number of locations where an entry recorded > 5 percent improvement over the best standards:** Co 15026 (1), CoLk 15206 (1) and CoLk 15207 (1).

**Performance of the entries across locations:** Co 05011 was the best standard with zonal mean of 18.79% sucrose. Test entry CoLk 15207 recorded numerically higher sucrose % (19.29). However, none of the test entries showed > 5 percent improvement over Co 05011.

**Table 4.6.5. Brix (%) at harvest**

| Sl. No | Entry        | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 15026     | 21.47        | 20.13        | 19.40        | 21.99        | 20.75          | 22.03        | 22.47         | 19.46          | 21.12        | 20.98        |
| 2      | CoLk 15206   | 21.27        | 19.87        | 18.20        | 23.21        | 20.75          | 22.30        | 22.51         | 20.79          | 21.30        | 21.13        |
| 3      | CoLk 15207   | 21.87        | 20.87        | 20.80        | 24.13        | 20.72          | 22.97        | 22.66         | 20.19          | 19.65        | 21.54        |
| 4      | CoLk 15209   | 21.10        | 20.00        | 18.20        | 22.23        | 20.62          | 21.90        | 21.73         | 20.79          | 20.12        | 20.74        |
| 5      | CoPb 15213   | 20.60        | 20.13        | 19.40        | 23.39        | 20.75          | 21.27        | 22.51         | 20.62          | 19.72        | 20.93        |
| 6      | CoS 15232    | 21.33        | 18.90        | 20.00        | 23.92        | 20.65          | 21.77        | 21.41         | 19.29          | 20.25        | 20.84        |
| 7      | CoS 15233    | 20.13        | 19.07        | 19.40        | 20.90        | 20.55          | 21.13        | 21.07         | 19.79          | 19.27        | 20.15        |
|        | Standards    |              |              |              |              |                |              |               |                |              |              |
| 1      | CoS 767      | 21.27        | 19.50        | 19.40        | 21.97        | 20.55          | 20.93        | 21.44         | 20.29          | 19.18        | 20.50        |
| 2      | CoPant 97222 | 21.67        | 20.50        | 19.90        | 23.36        | 20.38          | 21.40        | 22.36         | 20.79          | 19.27        | 21.07        |
| 3      | Co 05011     | 21.40        | 19.97        | 20.10        | 23.64        | 20.55          | 21.87        | 22.39         | 20.62          | 19.92        | 21.16        |
|        | <b>Mean</b>  | <b>21.19</b> | <b>19.89</b> | <b>19.50</b> | <b>22.87</b> | <b>20.63</b>   | <b>21.76</b> | <b>22.05</b>  | <b>20.26</b>   | <b>19.98</b> | <b>20.90</b> |
|        | SE (m)       | 0.19         | 0.37         | 0.24         | 0.96         | 0.17           | 0.24         | 0.39          | 0.07           | 0.26         |              |
|        | CD at 5%     | 0.55         | 1.09         | 0.56         | NS           | NS             | 0.73         | NS            | 0.22           | 0.77         |              |
|        | CV           | 1.53         | 3.22         | 2.09         | 5.12         | 0.99           | 1.95         | 3.03          | 2.69           | 2.24         |              |

**Table 4.6.6. Purity (%) at harvest**

| Sl. No | Entry        | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 15026     | 91.84        | 91.26        | 86.73        | 90.58        | 87.51          | 87.68        | 88.85         | 87.77          | 90.11        | 89.15        |
| 2      | CoLk 15206   | 93.14        | 88.28        | 85.73        | 89.85        | 87.27          | 88.31        | 88.92         | 87.88          | 88.96        | 88.70        |
| 3      | CoLk 15207   | 92.72        | 90.16        | 87.90        | 90.93        | 87.49          | 87.63        | 89.19         | 89.40          | 90.28        | 89.52        |
| 4      | CoLk 15209   | 93.03        | 90.23        | 85.70        | 88.47        | 87.58          | 87.41        | 88.74         | 88.94          | 89.23        | 88.81        |
| 5      | CoPb 15213   | 90.23        | 89.82        | 86.81        | 85.19        | 86.97          | 87.79        | 89.01         | 88.89          | 88.23        | 88.10        |
| 6      | CoS 15232    | 92.30        | 91.43        | 87.24        | 90.07        | 87.73          | 88.07        | 90.88         | 87.87          | 88.74        | 89.37        |
| 7      | CoS 15233    | 89.77        | 90.49        | 86.80        | 89.69        | 87.98          | 87.96        | 88.07         | 86.76          | 89.57        | 88.57        |
|        | Standards    |              |              |              |              |                |              |               |                |              |              |
| 1      | CoS 767      | 92.94        | 89.96        | 86.77        | 91.29        | 87.42          | 88.85        | 88.20         | 88.17          | 87.86        | 89.05        |
| 2      | CoPant 97222 | 91.98        | 90.90        | 87.16        | 88.45        | 87.80          | 88.29        | 88.72         | 84.80          | 86.95        | 88.34        |
| 3      | Co 05011     | 92.43        | 89.91        | 87.37        | 88.00        | 87.66          | 87.69        | 89.03         | 87.20          | 90.48        | 88.86        |
|        | <b>Mean</b>  | <b>92.17</b> | <b>90.24</b> | <b>86.82</b> | <b>89.25</b> | <b>87.54</b>   | <b>87.97</b> | <b>88.96</b>  | <b>87.77</b>   | <b>89.04</b> | <b>88.86</b> |
|        | SE (m)       | 0.44         | 0.60         | 0.19         | 2.19         | 0.49           | 0.48         | 0.67          | 0.35           | 0.70         |              |
|        | CD at 5%     | 1.30         | NS           | 0.45         | NS           | NS             | N/A          | NS            | 1.06           | 2.09         |              |
|        | CV           | 0.83         | 1.65         | 0.38         | 3.01         | 0.69           | 0.94         | -             | 3.12           | 1.36         |              |



**Table 4.6.7. Juice Extraction (%) at harvest**

| Sl. No | Entry        | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|----------------|--------------|--------------|
| 1      | Co 15026     | 55.68        | 55.51        | 46.40        | 59.46        | 51.36          |            | 55.38         | 52.34          | 66.61        | 55.34        |
| 2      | CoLk 15206   | 50.20        | 54.54        | 46.30        | 53.41        | 49.24          |            | 52.02         | 48.09          | 64.01        | 52.23        |
| 3      | CoLk 15207   | 47.88        | 53.36        | 48.81        | 51.53        | 50.27          |            | 55.57         | 42.38          | 60.68        | 51.31        |
| 4      | CoLk 15209   | 49.12        | 51.21        | 44.79        | 49.88        | 47.84          |            | 54.52         | 35.48          | 60.18        | 49.13        |
| 5      | CoPb 15213   | 51.19        | 59.43        | 45.00        | 51.18        | 46.78          |            | 57.20         | 43.95          | 64.76        | 52.44        |
| 6      | CoS 15232    | 49.01        | 52.49        | 43.15        | 51.55        | 48.92          |            | 57.22         | 49.73          | 58.88        | 51.37        |
| 7      | CoS 15233    | 52.57        | 54.38        | 41.80        | 51.69        | 50.66          |            | 56.85         | 51.63          | 65.59        | 53.15        |
|        | Standards    |              |              |              |              |                |            |               |                |              |              |
| 1      | CoS 767      | 52.82        | 55.38        | 42.14        | 51.93        | 49.15          |            | 55.62         | 49.11          | 60.41        | 52.07        |
| 2      | CoPant 97222 | 53.88        | 55.76        | 44.29        | 53.83        | 47.63          |            | 54.58         | 50.28          | 59.08        | 52.42        |
| 3      | Co 05011     | 56.05        | 58.32        | 43.45        | 50.81        | 51.46          |            | 56.80         | 45.84          | 67.08        | 53.73        |
|        | <b>Mean</b>  | <b>51.70</b> | <b>55.04</b> | <b>44.61</b> | <b>52.53</b> | <b>49.33</b>   |            | <b>55.58</b>  | <b>46.88</b>   | <b>62.73</b> | <b>52.30</b> |
|        | SE (m)       | 0.79         | 1.13         | 1.06         | 2.58         | -              |            | 1.01          | 0.47           | 1.49         |              |
|        | CD at 5%     | 2.33         | 3.35         | 2.55         | 5.41         | -              |            | 2.99          | 1.42           | 4.47         |              |
|        | CV           | 2.66         | 3.55         | 4.13         | 6.01         | -              |            | 3.14          | 5.82           | 4.13         |              |

**Table 4.6.8. Pol% in cane and Fibre (%) at harvest**

| Sl No | Entry        | Pol% in cane |         |                 |                | Fibre (%) in cane |            |         |                 |                |       |
|-------|--------------|--------------|---------|-----------------|----------------|-------------------|------------|---------|-----------------|----------------|-------|
|       |              | Kapurthala   | Lucknow | Muzaffar -nagar | Shahja -hanpur | Mean              | Kapurthala | Lucknow | Muzaffar -nagar | Shahja -hanpur | Mean  |
| 1     | Co 15026     | 14.64        | 15.25   | 13.95           | 14.92          | 14.69             | 14.52      | 13.51   | 13.15           | 15.28          | 14.11 |
| 2     | CoLk 15206   | 14.58        | 15.95   | 13.87           | 14.93          | 14.83             | 14.24      | 13.55   | 13.42           | 15.40          | 14.15 |
| 3     | CoLk 15207   | 14.36        | 16.78   | 13.95           | 15.10          | 15.05             | 14.77      | 13.51   | 13.12           | 15.31          | 14.18 |
| 4     | CoLk 15209   | 14.01        | 14.89   | 13.72           | 14.42          | 14.26             | 14.04      | 14.32   | 13.88           | 15.23          | 14.37 |
| 5     | CoPb 15213   | 14.15        | 15.01   | 13.70           | 14.99          | 14.46             | 14.09      | 14.45   | 14.10           | 15.21          | 14.46 |
| 6     | CoS 15232    | 13.66        | 16.03   | 13.89           | 14.52          | 14.52             | 14.73      | 15.59   | 13.32           | 15.24          | 14.72 |
| 7     | CoS 15233    | 13.51        | 14.54   | 13.82           | 13.87          | 13.93             | 13.26      | 12.56   | 13.56           | 15.26          | 13.66 |
|       | Standards    |              |         |                 |                |                   |            |         |                 |                |       |
| 1     | CoS 767      | 13.55        | 15.15   | 13.75           | 14.12          | 14.14             | 14.43      | 14.47   | 13.46           | 15.35          | 14.43 |
| 2     | CoPant 97222 | 14.03        | 15.77   | 13.81           | 14.81          | 14.60             | 13.62      | 13.65   | 13.26           | 15.32          | 13.96 |
| 3     | Co 05011     | 14.76        | 15.89   | 13.68           | 14.91          | 14.81             | 13.54      | 13.60   | 13.60           | 15.23          | 13.99 |
|       | Mean         | 14.12        | 15.52   | 13.81           | 14.66          | 14.53             | 14.12      | 13.92   | 13.49           | 15.28          | 14.20 |
|       | SE (m)       | 0.25         | 0.74    | -               | 0.20           |                   | 0.37       | 0.64    | -               | 0.04           |       |
|       | CD at 5%     | 0.74         | NS      | -               | 0.60           |                   | NS         | 1.34    | -               | 0.12           |       |
|       | CV           | 3.08         | 5.82    | -               | 2.37           |                   | 4.46       | 5.59    | -               | 0.44           |       |

**Table 4.6.9. Number of millable canes ( '000/ha) at harvest**

| Sl. No | Entry        | Faridkot      | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani        | Mean          |
|--------|--------------|---------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|---------------|---------------|
| 1      | Co 15026     | 99.38         | 75.86        | 88.02        | 69.37        | 81.97          | 61.33        | 89.01         | 122.57         | 71.02         | <b>84.28</b>  |
| 2      | CoLk 15206   | 116.36        | 91.84        | 90.86        | 105.56       | 89.13          | 74.67        | 98.77         | 122.08         | 100.31        | <b>98.84</b>  |
| 3      | CoLk 15207   | 92.13         | 87.10        | 93.46        | 107.25       | 102.59         | 76.33        | 101.36        | 149.36         | 112.80        | <b>102.49</b> |
| 4      | CoLk 15209   | 102.62        | 86.62        | 94.07        | 95.91        | 91.11          | 94.67        | 87.65         | 130.97         | 122.38        | <b>100.67</b> |
| 5      | CoPb 15213   | 141.20        | 106.56       | 94.44        | 106.87       | 105.19         | 135.33       | 104.94        | 121.22         | 132.28        | <b>116.45</b> |
| 6      | CoS 15232    | 141.05        | 93.37        | 103.83       | 100.00       | 91.23          | 91.00        | 107.78        | 111.96         | 109.62        | <b>105.54</b> |
| 7      | CoS 15233    | 92.90         | 85.67        | 99.75        | 98.77        | 98.52          | 91.33        | 95.06         | 134.80         | 88.75         | <b>98.39</b>  |
|        | Standards    |               |              |              |              |                |              |               |                |               |               |
| 1      | CoS 767      | 104.01        | 94.17        | 86.30        | 98.15        | 99.38          | 58.67        | 104.44        | 131.09         | 101.52        | <b>97.53</b>  |
| 2      | CoPant 97222 | 112.35        | 66.47        | 87.90        | 81.56        | 78.02          | 94.33        | 94.20         | 151.09         | 104.99        | <b>96.77</b>  |
| 3      | Co 05011     | 116.20        | 83.64        | 86.67        | 96.37        | 87.16          | 102.00       | 94.20         | 129.61         | 95.73         | <b>99.06</b>  |
|        | <b>Mean</b>  | <b>110.60</b> | <b>87.13</b> | <b>92.53</b> | <b>95.98</b> | <b>94.43</b>   | <b>87.97</b> | <b>97.74</b>  | <b>130.48</b>  | <b>103.94</b> | <b>100.09</b> |
|        | SE (m)       | 5.88          | 2.36         | 3.96         | 2.49         | 1.68           | 2.20         | 3.04          | 2.58           | 4.29          |               |
|        | CD at 5%     | 17.24         | 7.00         | 9.50         | 5.22         | 3.54           | 6.60         | 9.04          | 7.74           | 12.83         |               |
|        | CV           | 9.21          | 4.69         | 7.42         | 3.17         | 6.03           | 4.34         | 5.39          | 5.25           | 7.14          |               |

**Table 4.6.10 Stalk length (cm) at harvest**

| Sl. No | Entry               | Faridkot      | Kapurthala    | Kota          | Lucknow       | Muzaffar-nagar | Pant-nagar    | Shahja-hanpur | Sriganga-nagar | Uchani        | Mean          |
|--------|---------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|
| 1      | <b>Co 15026</b>     | 215.55        | 210.70        | 173.00        | 170.73        | 188.00         | 182.00        | 196.60        | 238.00         | 232.33        | <b>200.77</b> |
| 2      | <b>CoLk 15206</b>   | 206.33        | 211.80        | 182.00        | 203.53        | 196.00         | 222.00        | 219.27        | 211.00         | 245.27        | <b>210.80</b> |
| 3      | <b>CoLk 15207</b>   | 240.11        | 243.10        | 173.00        | 199.47        | 212.00         | 215.00        | 218.20        | 213.00         | 254.13        | <b>218.67</b> |
| 4      | <b>CoLk 15209</b>   | 190.22        | 226.50        | 200.00        | 162.07        | 188.00         | 204.00        | 192.40        | 205.00         | 232.40        | <b>200.07</b> |
| 5      | <b>CoPb 15213</b>   | 220.22        | 239.00        | 185.00        | 165.60        | 175.00         | 190.00        | 191.67        | 223.00         | 253.60        | <b>204.79</b> |
| 6      | <b>CoS 15232</b>    | 238.89        | 236.10        | 213.00        | 164.00        | 230.00         | 217.00        | 221.00        | 249.00         | 248.87        | <b>224.21</b> |
| 7      | <b>CoS 15233</b>    | 238.77        | 240.70        | 160.00        | 177.40        | 240.00         | 224.00        | 217.93        | 238.00         | 267.00        | <b>222.64</b> |
|        | Standards           |               |               |               |               |                |               |               |                |               |               |
| 1      | <b>CoS 767</b>      | 204.33        | 224.60        | 173.00        | 179.00        | 211.00         | 225.00        | 222.20        | 215.00         | 254.40        | <b>212.06</b> |
| 2      | <b>CoPant 97222</b> | 213.78        | 201.00        | 220.00        | 185.00        | 192.00         | 198.00        | 202.00        | 226.00         | 261.60        | <b>211.04</b> |
| 3      | <b>Co 05011</b>     | 226.89        | 191.20        | 145.00        | 173.00        | 185.00         | 234.00        | 182.95        | 230.00         | 222.93        | <b>199.00</b> |
|        | <b>Mean</b>         | <b>220.65</b> | <b>222.50</b> | <b>183.00</b> | <b>177.98</b> | <b>202.00</b>  | <b>211.00</b> | <b>206.42</b> | <b>225.00</b>  | <b>247.25</b> | <b>210.64</b> |
|        | SE (m)              | 7.59          | 5.82          | 10.00         | 8.95          | 6.00           | 10.00         | 5.56          | 4.00           | 5.96          |               |
|        | CD at 5%            | 22.25         | 17.27         | 25.00         | 18.80         | 13.00          | 31.00         | 16.53         | 11.00          | 17.86         |               |
|        | CV                  | 5.95          | 4.53          | 9.91          | 6.16          | 3.84           | 8.38          | 4.67          | 2.25           | 4.18          |               |

**Table 4.6.11 Stalk diameter (cm) at harvest**

| Sl. No | Entry        | Faridkot    | Kapurthala  | Kota        | Lucknow     | Muzaffar-nagar | Pant-nagar  | Shahja-hanpur | Sriganga-nagar | Uchani      | Mean        |
|--------|--------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|----------------|-------------|-------------|
| 1      | Co 15026     | 3.11        | 2.48        | 2.43        | 3.24        | 2.51           | 3.11        | 2.38          | 2.29           | 2.93        | 2.72        |
| 2      | CoLk 15206   | 2.89        | 2.17        | 2.23        | 2.75        | 2.10           | 2.42        | 2.39          | 2.39           | 2.30        | 2.40        |
| 3      | CoLk 15207   | 2.48        | 2.41        | 2.03        | 2.25        | 2.00           | 2.12        | 2.29          | 2.21           | 2.07        | 2.21        |
| 4      | CoLk 15209   | 2.65        | 2.34        | 2.37        | 2.43        | 2.22           | 2.22        | 2.52          | 2.26           | 2.27        | 2.36        |
| 5      | CoPb 15213   | 2.50        | 2.09        | 2.30        | 2.11        | 1.92           | 2.05        | 2.09          | 2.35           | 2.03        | 2.16        |
| 6      | CoS 15232    | 2.47        | 2.33        | 2.33        | 2.23        | 2.16           | 2.31        | 2.24          | 2.48           | 2.15        | 2.30        |
| 7      | CoS 15233    | 3.02        | 2.40        | 2.73        | 2.55        | 2.38           | 2.63        | 2.41          | 2.42           | 2.57        | 2.57        |
|        | Standards    |             |             |             |             |                |             |               |                |             |             |
| 1      | CoS 767      | 2.73        | 2.17        | 2.03        | 2.36        | 2.10           | 2.42        | 2.19          | 2.21           | 2.38        | 2.29        |
| 2      | CoPant 97222 | 2.80        | 2.32        | 2.63        | 2.56        | 2.30           | 2.50        | 2.33          | 2.36           | 2.30        | 2.46        |
| 3      | Co 05011     | 2.85        | 2.32        | 2.40        | 2.49        | 2.31           | 2.43        | 2.43          | 2.39           | 2.59        | 2.47        |
|        | <b>Mean</b>  | <b>2.75</b> | <b>2.30</b> | <b>2.35</b> | <b>2.50</b> | <b>2.20</b>    | <b>2.42</b> | <b>2.33</b>   | <b>2.34</b>    | <b>2.36</b> | <b>2.39</b> |
|        | SE (m)       | 0.09        | 0.04        | 0.13        | 0.16        | 0.10           | 0.03        | 0.06          | 0.05           | 0.06        |             |
|        | CD at 5%     | 0.25        | 0.13        | 0.31        | 0.34        | 0.21           | 0.09        | 0.18          | 0.14           | 0.18        |             |
|        | CV           | 5.40        | 3.36        | 9.45        | 8.05        | 5.70           | 2.24        | 4.51          | 11.30          | 4.35        |             |

**Table 4.6.12 Single cane weight (kg) at harvest**

| Sl. No | Entry        | Faridkot    | Kapurthala  | Kota        | Lucknow     | Muzaffar-nagar | Pant-nagar  | Shahja-hanpur | Sriganga-nagar | Uchani      | Mean        |
|--------|--------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|----------------|-------------|-------------|
| 1      | Co 15026     | 1.38        | 1.11        | 0.92        | 1.11        | 1.04           | 1.60        | 0.98          | 1.04           | 1.26        | 1.16        |
| 2      | CoLk 15206   | 1.02        | 0.99        | 0.87        | 0.93        | 0.98           | 1.34        | 0.92          | 0.97           | 1.02        | 1.00        |
| 3      | CoLk 15207   | 0.97        | 1.15        | 0.79        | 0.96        | 0.87           | 1.03        | 0.95          | 1.11           | 0.85        | 0.96        |
| 4      | CoLk 15209   | 0.91        | 0.95        | 0.95        | 0.76        | 0.89           | 1.03        | 0.89          | 1.02           | 0.77        | 0.91        |
| 5      | CoPb 15213   | 0.87        | 0.87        | 0.81        | 0.76        | 0.71           | 0.69        | 0.85          | 1.17           | 0.71        | 0.83        |
| 6      | CoS 15232    | 0.93        | 1.16        | 0.96        | 0.76        | 1.04           | 1.17        | 0.91          | 1.00           | 0.95        | 0.99        |
| 7      | CoS 15233    | 1.44        | 1.16        | 1.00        | 0.93        | 1.12           | 1.53        | 1.01          | 1.12           | 1.29        | 1.18        |
|        | Standards    |             |             |             |             |                |             |               |                |             |             |
| 1      | CoS 767      | 0.98        | 0.97        | 0.85        | 0.76        | 0.76           | 1.19        | 0.80          | 0.96           | 0.98        | 0.92        |
| 2      | CoPant 97222 | 1.11        | 0.90        | 0.91        | 0.85        | 1.05           | 1.24        | 0.83          | 0.93           | 1.00        | 0.98        |
| 3      | Co 05011     | 1.14        | 0.91        | 0.88        | 0.83        | 0.88           | 1.21        | 0.81          | 1.02           | 1.05        | 0.97        |
|        | <b>Mean</b>  | <b>1.09</b> | <b>1.02</b> | <b>0.89</b> | <b>0.87</b> | <b>0.93</b>    | <b>1.20</b> | <b>0.89</b>   | <b>1.03</b>    | <b>0.99</b> | <b>0.99</b> |
|        | SE (m)       | 0.05        | 0.05        | 0.04        | 0.04        | 0.03           | 0.04        | 0.04          | 0.02           | 0.04        |             |
|        | CD at 5%     | 0.14        | 0.16        | 0.10        | 0.08        | 0.06           | 0.13        | 0.11          | 0.07           | 0.11        |             |
|        | CV           | 7.67        | 9.00        | 7.71        | 5.45        | 3.85           | 6.00        | 7.17          | 6.66           | 6.22        |             |

**Table 4.6.13 CCS (%) at 10<sup>th</sup> month**

| Sl. No | Entry               | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | <b>Co 15026</b>     | 10.59        | 11.19        | 10.62        | 11.83        | 12.02          | 11.45        | 10.53         | 10.01          | 11.91        | <b>11.13</b> |
| 2      | <b>CoLk 15206</b>   | 10.34        | 11.06        | 9.76         | 12.35        | 11.64          | 11.02        | 11.49         | 10.09          | 11.48        | <b>11.03</b> |
| 3      | <b>CoLk 15207</b>   | 12.20        | 11.98        | 11.74        | 12.90        | 12.12          | 11.84        | 11.02         | 10.01          | 11.83        | <b>11.74</b> |
| 4      | <b>CoLk 15209</b>   | 11.95        | 10.95        | 9.74         | 12.37        | 11.40          | 11.24        | 11.39         | 10.89          | 11.63        | <b>11.28</b> |
| 5      | <b>CoPb 15213</b>   | 10.01        | 10.52        | 10.67        | 11.86        | 11.47          | 11.14        | 11.13         | 10.65          | 10.38        | <b>10.87</b> |
| 6      | <b>CoS 15232</b>    | 10.46        | 9.90         | 11.11        | 12.27        | 11.95          | 10.80        | 11.28         | 10.52          | 11.61        | <b>11.10</b> |
| 7      | <b>CoS 15233</b>    | 10.36        | 10.86        | 10.67        | 11.92        | 12.00          | 11.29        | 11.00         | 9.64           | 10.47        | <b>10.91</b> |
|        | Standards           |              |              |              |              |                |              |               |                |              |              |
| 1      | <b>CoS 767</b>      | 11.44        | 11.22        | 10.65        | 11.80        | 11.60          | 11.36        | 11.33         | 9.93           | 10.33        | <b>11.07</b> |
| 2      | <b>CoPant 97222</b> | 11.06        | 11.37        | 11.00        | 12.58        | 11.43          | 11.53        | 11.72         | 9.79           | 10.52        | <b>11.22</b> |
| 3      | <b>Co 05011</b>     | 10.94        | 10.87        | 11.21        | 12.53        | 12.11          | 11.00        | 11.39         | 10.30          | 11.24        | <b>11.29</b> |
|        | <b>Mean</b>         | <b>11.14</b> | <b>10.99</b> | <b>10.72</b> | <b>12.24</b> | <b>11.77</b>   | <b>11.27</b> | <b>11.23</b>  | <b>10.18</b>   | <b>11.14</b> | <b>11.19</b> |
|        | SE (m)              | 0.17         | 0.26         | 0.18         | 0.40         | 0.18           | 0.24         | 0.32          | 0.20           | 0.22         |              |
|        | CD at 5%            | 0.48         | 0.77         | 0.43         | NS           | 0.37           | NS           | NS            | 0.61           | 0.66         |              |
|        | CV                  | 2.57         | 4.08         | 2.90         | 3.97         | 1.84           | 3.61         | 4.97          | 7.30           | 3.41         |              |

**Table 4.6.14 Sucrose (%) at 10<sup>th</sup> month**

| Sl. No | Entry        | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 15026     | 15.23        | 16.20        | 15.59        | 16.82        | 17.69          | 16.92        | 15.54         | 15.04          | 17.14        | 16.24        |
| 2      | CoLk 15206   | 15.21        | 16.04        | 14.43        | 17.81        | 17.03          | 16.45        | 16.88         | 15.14          | 16.60        | 16.18        |
| 3      | CoLk 15207   | 17.37        | 17.32        | 17.11        | 18.45        | 17.76          | 17.51        | 16.27         | 14.76          | 17.03        | 17.06        |
| 4      | CoLk 15209   | 17.05        | 15.72        | 14.39        | 17.77        | 16.66          | 16.62        | 16.74         | 16.26          | 16.78        | 16.44        |
| 5      | CoPb 15213   | 14.64        | 15.31        | 15.66        | 17.07        | 16.78          | 16.60        | 16.40         | 15.61          | 15.31        | 15.93        |
| 6      | CoS 15232    | 14.94        | 14.55        | 16.25        | 17.57        | 17.46          | 16.02        | 16.58         | 15.53          | 16.74        | 16.18        |
| 7      | CoS 15233    | 14.93        | 15.59        | 15.66        | 17.00        | 17.53          | 16.76        | 16.21         | 14.29          | 15.31        | 15.92        |
|        | Standards    |              |              |              |              |                |              |               |                |              |              |
| 1      | CoS 767      | 16.49        | 16.18        | 15.63        | 16.96        | 16.96          | 16.78        | 16.65         | 14.96          | 15.05        | 16.18        |
| 2      | CoPant 97222 | 15.91        | 16.37        | 16.11        | 17.91        | 16.70          | 17.07        | 17.18         | 14.76          | 15.43        | 16.38        |
| 3      | Co 05011     | 15.70        | 15.73        | 16.38        | 17.91        | 17.65          | 16.38        | 16.74         | 15.17          | 16.20        | 16.43        |
|        | <b>Mean</b>  | <b>16.01</b> | <b>15.90</b> | <b>15.72</b> | <b>17.53</b> | <b>17.22</b>   | <b>16.71</b> | <b>16.52</b>  | <b>15.15</b>   | <b>16.16</b> | <b>16.32</b> |
|        | SE (m)       | 0.23         | 0.33         | 0.24         | 0.51         | 0.25           | 0.30         | 0.43          | 0.18           | 0.27         |              |
|        | CD at 5%     | 0.67         | 0.97         | 0.58         | NS           | 0.53           | NS           | NS            | 0.53           | 0.82         |              |
|        | CV           | 2.46         | 3.55         | 2.67         | 3.55         | 1.80           | 3.13         | 4.52          | 5.21           | 2.92         |              |



**Table 4.6.15 Brix (%) at 10<sup>th</sup> month**

| Sl. No | Entry        | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 15026     | 17.03        | 18.37        | 18.20        | 18.37        | 20.76          | 20.00        | 18.34         | 18.35          | 19.20        | 18.74        |
| 2      | CoLk 15206   | 17.83        | 18.27        | 17.06        | 20.05        | 19.76          | 19.83        | 19.72         | 18.44          | 18.77        | 18.86        |
| 3      | CoLk 15207   | 19.00        | 19.57        | 19.66        | 20.41        | 20.63          | 20.73        | 19.21         | 17.37          | 19.10        | 19.52        |
| 4      | CoLk 15209   | 18.73        | 17.53        | 17.03        | 19.84        | 19.29          | 19.67        | 19.59         | 19.63          | 18.90        | 18.91        |
| 5      | CoPb 15213   | 16.93        | 17.54        | 18.26        | 19.11        | 19.46          | 19.93        | 19.29         | 18.17          | 18.03        | 18.52        |
| 6      | CoS 15232    | 16.47        | 17.00        | 18.83        | 19.48        | 20.19          | 19.07        | 19.40         | 18.34          | 18.83        | 18.62        |
| 7      | CoS 15233    | 16.77        | 17.37        | 18.26        | 18.65        | 20.23          | 20.00        | 19.06         | 17.01          | 17.70        | 18.34        |
|        | Standards    |              |              |              |              |                |              |               |                |              |              |
| 1      | CoS 767      | 18.53        | 18.20        | 18.23        | 18.96        | 19.63          | 19.83        | 19.48         | 18.34          | 17.30        | 18.72        |
| 2      | CoPant 97222 | 17.80        | 18.33        | 18.70        | 19.59        | 19.33          | 20.23        | 20.01         | 18.12          | 18.00        | 18.90        |
| 3      | Co 05011     | 17.47        | 17.83        | 18.96        | 19.77        | 20.29          | 19.67        | 19.59         | 17.84          | 18.20        | 18.85        |
|        | <b>Mean</b>  | <b>17.89</b> | <b>18.00</b> | <b>18.32</b> | <b>19.42</b> | <b>19.56</b>   | <b>19.90</b> | <b>19.37</b>  | <b>18.16</b>   | <b>18.40</b> | <b>18.78</b> |
|        | SE (m)       | 0.25         | 0.29         | 0.24         | 0.46         | 0.33           | 0.29         | 0.41          | 0.26           | 0.23         |              |
|        | CD at 5%     | 0.74         | 0.88         | 0.56         | 0.97         | 0.70           | NS           | NS            | 0.77           | 0.69         |              |
|        | CV           | 2.45         | 2.86         | 2.23         | 2.90         | 2.05           | 2.52         | 3.63          | 4.68           | 2.16         |              |

**Table 4.6.16 Purity (%) at 10<sup>th</sup> month**

| Sl. No | Entry        | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 15026     | 89.39        | 88.21        | 85.67        | 91.58        | 85.22          | 84.57        | 84.73         | 81.96          | 89.27        | 86.73        |
| 2      | CoLk 15206   | 85.32        | 87.83        | 84.54        | 88.84        | 86.18          | 82.94        | 85.58         | 82.10          | 88.43        | 85.75        |
| 3      | CoLk 15207   | 91.40        | 88.51        | 87.00        | 90.55        | 86.09          | 84.45        | 84.61         | 84.97          | 89.15        | 87.41        |
| 4      | CoLk 15209   | 91.01        | 89.66        | 84.51        | 89.60        | 86.37          | 84.49        | 85.44         | 82.83          | 88.78        | 86.97        |
| 5      | CoPb 15213   | 86.43        | 87.29        | 85.76        | 89.65        | 86.20          | 83.25        | 84.97         | 85.91          | 84.90        | 86.04        |
| 6      | CoS 15232    | 90.74        | 85.54        | 86.26        | 90.24        | 86.47          | 83.98        | 85.43         | 84.68          | 88.89        | 86.91        |
| 7      | CoS 15233    | 89.04        | 89.76        | 85.75        | 91.13        | 86.64          | 83.80        | 85.02         | 84.01          | 86.46        | 86.85        |
|        | Standards    |              |              |              |              |                |              |               |                |              |              |
| 1      | CoS 767      | 89.00        | 88.85        | 85.73        | 89.50        | 86.42          | 84.60        | 85.50         | 81.57          | 86.96        | 86.46        |
| 2      | CoPant 97222 | 89.38        | 89.29        | 86.16        | 91.41        | 86.34          | 84.35        | 85.86         | 81.46          | 85.73        | 86.66        |
| 3      | Co 05011     | 89.85        | 88.20        | 86.40        | 90.55        | 86.95          | 83.28        | 85.47         | 85.04          | 88.99        | 87.19        |
|        | <b>Mean</b>  | <b>89.45</b> | <b>88.31</b> | <b>85.78</b> | <b>90.31</b> | <b>86.29</b>   | <b>83.97</b> | <b>85.26</b>  | <b>83.45</b>   | <b>87.76</b> | <b>86.73</b> |
|        | SE (m)       | 0.43         | 0.84         | 0.21         | 0.91         | 0.63           | 0.65         | 0.47          | 0.66           | 0.63         |              |
|        | CD at 5%     | 1.26         | NS           | 0.51         | 1.91         | NS             | NS           | NS            | 1.97           | 1.88         |              |
|        | CV           | 0.83         | 1.65         | 0.43         | 1.23         | 0.89           | 1.35         | 0.96          | 4.82           | 1.24         |              |

**Table 4.6.17 Number of shoots ( '000/ha) at 240 DAP**

| Sl. No | Entry        | Faridkot      | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Uchani        | Mean          |
|--------|--------------|---------------|--------------|--------------|--------------|----------------|------------|---------------|----------------|---------------|---------------|
| 1      | Co 15026     | 109.72        | 82.13        | 91.00        | 71.91        |                |            |               |                | 77.23         | 86.40         |
| 2      | CoLk 15206   | 124.23        | 95.39        | 96.30        | 108.72       |                |            |               |                | 108.05        | 106.54        |
| 3      | CoLk 15207   | 97.99         | 90.80        | 94.70        | 110.73       |                |            |               |                | 120.24        | 102.89        |
| 4      | CoLk 15209   | 111.57        | 89.97        | 104.70       | 99.07        |                |            |               |                | 123.30        | 105.72        |
| 5      | CoPb 15213   | 153.70        | 111.02       | 97.00        | 108.64       |                |            |               |                | 141.53        | 122.38        |
| 6      | CoS 15232    | 151.85        | 97.65        | 111.60       | 103.16       |                |            |               |                | 126.57        | 118.17        |
| 7      | CoS 15233    | 96.76         | 88.98        | 106.40       | 102.55       |                |            |               |                | 100.59        | 99.06         |
|        | Standards    |               |              |              |              |                |            |               |                |               |               |
| 1      | CoS 767      | 108.95        | 97.82        | 92.70        | 100.93       |                |            |               |                | 108.72        | 101.82        |
| 2      | CoPant 97222 | 118.21        | 72.37        | 96.50        | 86.88        |                |            |               |                | 117.93        | 98.38         |
| 3      | Co 05011     | 120.37        | 87.88        | 92.50        | 99.46        |                |            |               |                | 109.40        | 101.92        |
|        | <b>Mean</b>  | <b>117.93</b> | <b>91.40</b> | <b>98.35</b> | <b>99.21</b> |                |            |               |                | <b>113.36</b> | <b>104.05</b> |
|        | SE (m)       | 4.97          | 2.25         | 4.81         | 2.25         |                |            |               |                | 5.98          |               |
|        | CD at 5%     | 14.57         | 6.75         | 11.53        | 4.72         |                |            |               |                | 17.91         |               |
|        | CV           | 7.30          | 4.31         | 8.47         | 2.77         |                |            |               |                | 9.14          |               |

**Table 4.6.18 Number of tillers ( 000/ha) at 120 DAP**

| Sl. No | Entry        | Faridkot      | Kapurthala   | Kota          | Lucknow       | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani        | Mean          |
|--------|--------------|---------------|--------------|---------------|---------------|-----------------|--------------|----------------|-----------------|---------------|---------------|
| 1      | Co 15026     | 144.14        | 87.20        | 103.21        | 74.23         | 158.39          | 72.33        | 174.44         | 158.42          | 115.57        | <b>120.88</b> |
| 2      | CoLk 15206   | 154.63        | 100.18       | 106.05        | 110.96        | 176.42          | 93.00        | 188.64         | 157.93          | 145.52        | <b>137.04</b> |
| 3      | CoLk 15207   | 113.58        | 96.35        | 101.36        | 113.27        | 184.96          | 83.00        | 203.58         | 185.21          | 162.38        | <b>138.19</b> |
| 4      | CoLk 15209   | 152.01        | 94.81        | 116.91        | 101.39        | 165.43          | 106.67       | 180.12         | 166.82          | 168.98        | <b>139.24</b> |
| 5      | CoPb 15213   | 164.66        | 114.64       | 105.06        | 112.42        | 179.38          | 151.00       | 194.94         | 157.07          | 178.46        | <b>150.85</b> |
| 6      | CoS 15232    | 163.73        | 102.22       | 123.83        | 106.33        | 161.48          | 108.00       | 203.21         | 147.81          | 171.60        | <b>143.13</b> |
| 7      | CoS 15233    | 120.99        | 93.76        | 118.64        | 105.09        | 172.22          | 97.33        | 187.53         | 170.65          | 138.73        | <b>133.88</b> |
|        | Standards    |               |              |               |               |                 |              |                |                 |               |               |
| 1      | CoS 767      | 135.65        | 101.74       | 104.32        | 103.24        | 181.48          | 104.67       | 193.58         | 166.94          | 131.42        | <b>135.89</b> |
| 2      | CoPant 97222 | 128.55        | 76.26        | 109.88        | 91.51         | 149.26          | 66.67        | 181.11         | 186.94          | 155.40        | <b>127.29</b> |
| 3      | Co 05011     | 142.28        | 91.93        | 104.69        | 103.24        | 150.12          | 113.67       | 172.22         | 165.46          | 157.10        | <b>133.41</b> |
|        | <b>Mean</b>  | <b>140.70</b> | <b>95.91</b> | <b>109.40</b> | <b>102.17</b> | <b>167.84</b>   | <b>99.63</b> | <b>187.94</b>  | <b>166.33</b>   | <b>152.52</b> | <b>135.83</b> |
|        | SE (m)       | 9.19          | 2.09         | 5.08          | 2.08          | 4.10            | 2.01         | 4.99           | 3.76            | 9.35          |               |
|        | CD at 5%     | 26.96         | 6.20         | 12.17         | 4.36          | 8.62            | 6.00         | 14.81          | 11.27           | 28.00         |               |
|        | CV           | 11.31         | 3.72         | 8.04          | 2.49          | 8.08            | 3.49         | 4.59           | 9.57            | 10.62         |               |

**Table 4.6.19 Germination (%) at 45 DAP**

| Sl. No | Entry        | Faridkot | Kapurthala | Kota  | Lucknow | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Uchani | Mean  |
|--------|--------------|----------|------------|-------|---------|----------------|------------|---------------|----------------|--------|-------|
| 1      | Co 15026     | 30.94    | 45.68      | 43.73 | 30.89   | 36.01          | 36.57      | 43.61         | 36.62          | 26.97  | 36.78 |
| 2      | CoLk 15206   | 45.49    | 65.43      | 43.63 | 40.90   | 37.59          | 42.01      | 44.63         | 42.26          | 51.50  | 45.94 |
| 3      | CoLk 15207   | 32.26    | 55.17      | 45.53 | 40.97   | 41.11          | 45.49      | 49.54         | 45.63          | 49.89  | 45.07 |
| 4      | CoLk 15209   | 45.05    | 59.03      | 46.82 | 34.38   | 39.07          | 42.07      | 41.94         | 39.48          | 53.01  | 44.54 |
| 5      | CoPb 15213   | 33.80    | 49.78      | 44.20 | 36.99   | 46.02          | 39.76      | 48.61         | 45.56          | 42.59  | 43.03 |
| 6      | CoS 15232    | 31.23    | 44.21      | 51.60 | 37.81   | 33.43          | 40.74      | 49.72         | 44.60          | 42.48  | 41.76 |
| 7      | CoS 15233    | 33.00    | 51.62      | 48.33 | 37.25   | 42.31          | 39.76      | 47.87         | 47.78          | 47.46  | 43.93 |
|        | Standards    |          |            |       |         |                |            |               |                |        |       |
| 1      | CoS 767      | 33.95    | 58.21      | 45.60 | 39.27   | 37.59          | 44.04      | 47.22         | 44.72          | 32.29  | 42.54 |
| 2      | CoPant 97222 | 31.01    | 60.39      | 46.28 | 33.42   | 35.19          | 35.53      | 44.35         | 48.33          | 48.38  | 42.54 |
| 3      | Co 05011     | 32.48    | 59.37      | 42.55 | 37.85   | 40.28          | 42.30      | 40.83         | 47.45          | 43.64  | 42.97 |
|        | Mean         | 34.99    | 54.89      | 45.83 | 36.97   | 38.86          | 40.83      | 45.83         | 44.24          | 43.82  | 42.92 |
|        | SE (m)       | 2.10     | 3.66       | 2.17  | 1.66    | 0.56           | 1.53       | 1.48          | 0.53           | 1.58   |       |
|        | CD at 5%     | 6.16     | 10.86      | 5.20  | 3.49    | 1.18           | 4.59       | 4.40          | 1.60           | 4.72   |       |
|        | CV           | 10.40    | 11.54      | 8.19  | 5.50    | 6.40           | 6.51       | 5.60          | 5.38           | 6.23   |       |

**Table 4.6.20 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S. No | Genotype     | Lucknow | Shahjahanpur | Pantnagar | Muzzafrarnagar | Karnal | Uchani | Kapurthala | Faridkot | Sriganganagar | Kota   |
|-------|--------------|---------|--------------|-----------|----------------|--------|--------|------------|----------|---------------|--------|
| 1     | Co 15026     | On par  | On par       | Poor      | Better         | NA     | On par | On par     | On par   | Better        | Better |
| 2     | CoLk 15206   | Better  | Better       | Poor      | Better         | NA     | On par | Poor       | Poor     | Poor          | On par |
| 3     | CoLk 15207   | On par  | On par       | Poor      | Better         | NA     | Poor   | Better     | On par   | Poor          | Better |
| 4     | CoLk 15209   | On par  | On par       | On par    | Better         | NA     | On par | On par     | On par   | Better        | On par |
| 5     | CoPb 15213   | On Par  | On par       | On par    | On par         | NA     | Poor   | Better     | Better   | Poor          | On par |
| 6     | CoS 15232    | Better  | On par       | Better    | On Par         | NA     | On par | Better     | On par   | Poor          | Better |
| 7     | CoS 15233    | Poor    | Better       | On par    | Better         | NA     | Better | Better     | Better   | On par        | Better |
|       | Standards    |         |              |           |                |        |        |            |          |               |        |
| 1     | CoS 767      | III     | Best         | III       | III            | NA     | II     | II         | III      | III           | II     |
| 2     | CoPant 97222 | Best    | III          | Best      | Best           | NA     | Best   | III        | Best     | Best          | III    |
| 3     | Co 05011     | II      | II           | II        | II             | NA     | III    | Best       | II       | II            | Best   |

NA= Not allotted.

#### 4.7 ADVANCED VARIETAL TRIAL (MIDLATE) - RATOON

|                |  |
|----------------|--|
| Centres (9)    | Faridkot, Kapurthala, Kota, Lucknow, Muzaffarnagar, Pantnagar, Shahjahanpur, Sriganaganagar and Uchani |
| Entries (7)    | Co 15026, CoLk 15206, CoLk 15207, CoLk 15209, CoPb 15213, CoS 15232 and CoS 15233.                     |
| Standards (3)  | CoS 767, CoPant 97222, Co 05011  |
| Design         | RBD  |
| Replications   | 3  |
| Plot size      | Gross : 8 rows × 6 m × 0.90 m<br>Net : 6 rows × 5 m × 0.90 m   |
| Month ratooned | February / March, 2020   |
| Crop Duration  | 11 months  |

**Results of the previous year:** In AVT-I Plant trial, CoPant 97222 was identified as the best standard in the zone for CCS yield (11.58 t/ha) and cane yield (89.27 t/ha). Two test entries viz., CoS 15232 (12.29 t/ha) and Co 15026 (11.87 t/ha) recorded numerically higher CCS yield than CoPant 97222. For cane yield, CoS 15232 (95.60 t/ha), CoS 15233 (92.67 t/ha) and Co 15026 (92.52 t/ha) registered numerically higher cane yield than the best standard. However, none of these superior entries recorded >10 percent improvement either for CCS yield or for cane yield over the best standard. For CCS%, five test entries namely, CoLk 15207 (13.01%), Co 15206 (12.99%), CoLk 15209 (12.88%), CoS 15232 (12.84%) and CoLk 15206 (12.82%) exhibited numerically higher values than the best standard, CoPant 97222 (12.78%). Similarly for sucrose%, five test entries namely, CoLk 15207 (18.92%), Co 15026 (18.57%), CoLk 15206 (18.44%), CoLk 15209 (18.42%) and CoPb 15213 (18.32%) recorded the numerically higher values than the standard CoPant 97222. Nonetheless, the percent improvement in these clones for CCS% and or sucrose% over the best standard CoPant 97222 were lesser than 5%.

**Results of the current year:** Co 05011 was the best among the standards in the zone for CCS yield (9.58 t/ha) as well as cane yield (79.16 t/ha). No test entry was significantly superior to the best standard although entries such as CoLk 15206 (9.18 t/ha), CoLk 15207 (9.15 t/ha) and CoS 15232 (9.15 t/ha) occupied top three ranks in the zone for CCS yield. For cane yield, CoS 15233 (78.74 t/ha) and CoS 15232 (77.93 t/ha) occupied second and third ranks, respectively. However, the percent improvement in these clones over the best standard for cane yield was lesser than 10 %. For juice quality traits, Co 05011 was the best among the standards for CCS % (12.08) and sucrose % (17.51). Test entries CoLk 15207 (12.40 %) and CoPb 15213 (12.11 %) recorded numerically higher CCS than the best standard. The entries CoLk 15207 (17.92 %), CoPb 15213 (17.51 %) and CoLk 15206 (17.41 %) occupied top three ranks in the zone for sucrose%. However, the percent improvement in these clones over the best standard for CCS% or sucrose % was lesser than 5%. Further details are given in Table 4.7.1 to 4.7.14.

**Qualifying entries:** As per the criteria, no qualifying entry could be identified.

**Table 4.7.1. CCS (t/ha) at harvest**

| Sl. No   | Entry        | Faridkot | Kapur -thala | Kota       | Lucknow    | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Uchani | Mean | Rank |
|--|--------------|----------|--------------|------------|------------|-----------------|-------------|----------------|-----------------|--------|------|------|
| 1  | Co 15026     | 10.17    | 8.58         | 9.57       | *          | 7.18            | 5.30        | 7.88           | 8.90            | 4.11   | 7.71 |      |
| 2  | CoLk 15206   | 6.62     | 9.28         | 8.67       | 10.75      | 8.23            | 9.26        | 9.32           | 10.02           | 10.51  | 9.18 | 2    |
| 3  | CoLk 15207   | 8.85     | 9.95         | 8.56       | 11.32      | 7.81            | 6.46        | 9.81           | 11.12           | 8.44   | 9.15 | 3    |
| 4  | CoLk 15209   | 7.23     | 8.46         | 9.35       | 8.80       | 8.02            | 11.11       | 7.96           | 9.34            | 9.68   | 8.88 |      |
| 5  | CoPb 15213   | 10.96    | 9.98         | 11.21      | 8.86       | 7.10            | 4.76        | 7.73           | 10.39           | 8.65   | 8.85 |      |
| 6  | CoS 15232    | 11.17    | 8.41         | 8.77       | 8.04       | 8.74            | 8.25        | 9.35           | 10.13           | 9.52   | 9.15 | 3    |
| 7  | CoS 15233    | 9.70     | 9.65         | 8.38       | 8.31       | 9.06            | 9.43        | 9.08           | 8.53            | 10.03  | 9.13 |      |
|  | Standards    |          |              |            |            |                 |             |                |                 |        |      |      |
| 1  | CoS 767      | 9.73     | 8.15         | 8.02       | 7.69       | 7.46            | 8.84        | 8.58           | 9.23            | 8.92   | 8.51 |      |
| 2  | CoPant 97222 | 12.26    | 7.46         | 8.62       | 8.58       | 6.79            | 10.76       | 8.09           | 9.18            | 10.25  | 9.11 |      |
| 3  | Co 05011     | 12.38    | 9.52         | 8.38       | 8.58       | 8.66            | 11.22       | 8.23           | 10.83           | 8.45   | 9.58 | 1    |
|  | Mean         | 9.91     | 8.94         | 8.95       | 8.99       | 7.91            | 8.54        | 8.61           | 9.77            | 8.85   | 8.94 |      |
|  | SE (m)       | 0.70     | 0.36         | 0.57       | 0.62       | 0.25            | 0.46        | 0.29           | 0.18            | 0.40   |      |      |
|  | CD at 5%     | 2.07     | 1.06         | 1.37       | 1.31       | 0.53            | 1.38        | 0.86           | 0.54            | 1.19   |      |      |
|  | CV           | 12.20    | 6.95         | 11.03      | 8.43       | 10.51           | 9.34        | 5.82           | 16.23           | 7.81   |      |      |
| <b>Top three entries recorded &gt; 10% improvement over the best standard at each location</b> |              |          |              |            |            |                 |             |                |                 |        |      |      |
|  | Rank-1       |          |              | CoPb 15213 | CoLk 15207 |                 |             | CoLk 15207     |                 |        |      |      |
|  | Rank-2       |          |              | Co 15026   | CoLk 15206 |                 |             |                |                 |        |      |      |
|  | Rank-3       |          |              |            |            |                 |             |                |                 |        |      |      |

Note: \* Data of Co 15026 was not recorded at Lucknow centre due to poor sprouting of ratoon crop.

Number of locations where an entry recorded > 10% improvement over the best standard: CoLk 15207 (2), Co 15026 (1), CoLk 15206 (1) and CoPb 15213 (1).

Performance of the entries across locations: Co 05011 was the best standard in the zone for CCS yield (9.58 t/ha). No test entry was significantly superior to the best standard although entries CoLk 15206 (9.18 t/ha), CoLk 15207 (9.15 t/ha) and CoS 15232 (9.15 t/ha) occupied top three ranks in the zone for CCS yield.



**Table 4.7.2. Cane yield (t/ha) at harvest**

| Sl. No   | Entry        | Faridkot | Kapur -thala | Kota       | Lucknow    | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Uchani | Mean  | Rank |
|--|--------------|----------|--------------|------------|------------|-----------------|-------------|----------------|-----------------|--------|-------|------|
| 1  | Co 15026     | 84.88    | 71.93        | 78.18      | *          | 60.37           | 44.69       | 67.28          | 82.02           | 33.60  | 65.37 |      |
| 2  | CoLk 15206   | 53.70    | 79.13        | 72.34      | 88.03      | 72.59           | 76.31       | 75.56          | 85.81           | 84.92  | 76.49 |      |
| 3  | CoLk 15207   | 65.12    | 83.26        | 77.77      | 90.34      | 63.33           | 52.09       | 77.90          | 91.69           | 65.16  | 74.07 |      |
| 4  | CoLk 15209   | 56.17    | 71.13        | 79.35      | 72.96      | 67.78           | 93.32       | 67.04          | 80.52           | 77.81  | 74.01 |      |
| 5  | CoPb 15213   | 87.35    | 80.26        | 86.99      | 75.27      | 59.38           | 40.26       | 65.19          | 89.05           | 71.89  | 72.85 |      |
| 6  | CoS 15232    | 91.67    | 74.00        | 85.33      | 65.63      | 70.74           | 69.18       | 75.80          | 85.42           | 83.56  | 77.93 | 3    |
| 7  | CoS 15233    | 79.63    | 82.19        | 74.82      | 74.52      | 75.56           | 77.11       | 75.68          | 81.08           | 88.08  | 78.74 | 2    |
|  | Standards    |          |              |            |            |                 |             |                |                 |        |       |      |
| 1  | CoS 767      | 74.69    | 70.81        | 75.43      | 69.47      | 62.10           | 73.72       | 71.11          | 83.16           | 74.95  | 72.83 |      |
| 2  | CoPant 97222 | 95.99    | 60.71        | 76.46      | 71.04      | 57.53           | 91.44       | 65.80          | 82.75           | 83.95  | 76.19 |      |
| 3  | Co 05011     | 98.15    | 77.42        | 73.94      | 72.22      | 70.49           | 90.95       | 68.89          | 90.36           | 69.98  | 79.16 | 1    |
|  | Mean         | 78.73    | 75.08        | 78.06      | 75.50      | 66.01           | 70.91       | 71.02          | 85.19           | 73.39  | 74.88 |      |
|  | SE (m)       | 5.30     | 2.66         | 5.14       | 3.53       | 1.94            | 3.51        | 1.86           | 2.14            | 2.85   |       |      |
|  | CD at 5%     | 15.76    | 7.90         | 12.32      | 7.48       | 4.07            | 10.52       | 5.54           | 6.41            | 8.56   |       |      |
|  | CV           | 11.67    | 6.14         | 11.40      | 5.73       | 10.36           | 8.58        | 4.55           | 9.61            | 6.74   |       |      |
| <b>Top three entries recorded &gt; 10% improvement over the best standard at each location</b> |              |          |              |            |            |                 |             |                |                 |        |       |      |
|  | Rank-1       |          |              | CoPb 15213 | CoLk 15207 |                 |             |                |                 |        |       |      |
|  | Rank-2       |          |              | CoS 15232  | CoLk 15206 |                 |             |                |                 |        |       |      |
|  | Rank-3       |          |              |            |            |                 |             |                |                 |        |       |      |

**Number of locations where an entry recorded > 10% improvement over the best standard:** CoLk 15206 (1), CoLk 15207 (1), CoPb 15213 (1) and CoS 15232 (1)

**Performance of the entries across locations:** Co 05011 was the best standard in the zone for cane yield (79.16 t/ha). None of the test entries were superior to the best standard although entries such as CoS 15233 (78.74 t/ha) and CoS 15232 (77.93 t/ha) occupied second and third rank, respectively in the zone for cane yield.

**Table 4.7.3. CCS (%) at harvest**

| Sl. No  | Entry               | Faridkot     | Kapur -thala | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         | Rank |
|---|---------------------|--------------|--------------|--------------|--------------|-----------------|--------------|----------------|-----------------|--------------|--------------|------|
| 1   | <b>Co 15026</b>     | 11.99        | 11.94        | 12.24        | *            | 11.89           | 11.88        | 11.71          | 10.85           | 12.20        | <b>11.84</b> |      |
| 2   | <b>CoLk 15206</b>   | 12.35        | 11.73        | 12.02        | 12.19        | 11.32           | 12.14        | 12.34          | 11.68           | 12.37        | <b>12.02</b> |      |
| 3   | <b>CoLk 15207</b>   | 13.61        | 11.97        | 11.06        | 12.52        | 12.34           | 12.40        | 12.60          | 12.12           | 12.95        | <b>12.40</b> | 1    |
| 4   | <b>CoLk 15209</b>   | 12.85        | 11.90        | 11.77        | 12.05        | 11.84           | 11.92        | 11.88          | 11.60           | 12.43        | <b>12.03</b> |      |
| 5   | <b>CoPb 15213</b>   | 12.56        | 12.42        | 12.89        | 11.76        | 11.95           | 11.83        | 11.86          | 11.67           | 12.05        | <b>12.11</b> | 2    |
| 6   | <b>CoS 15232</b>    | 12.18        | 11.36        | 10.27        | 12.24        | 12.35           | 11.92        | 12.33          | 11.86           | 11.39        | <b>11.77</b> |      |
| 7   | <b>CoS 15233</b>    | 12.17        | 11.74        | 11.19        | 11.14        | 12.03           | 12.18        | 12.00          | 10.52           | 11.39        | <b>11.60</b> |      |
|   | Standards           |              |              |              |              |                 |              |                |                 |              |              |      |
| 1   | <b>CoS 767</b>      | 13.03        | 11.51        | 10.63        | 11.09        | 12.02           | 11.98        | 12.10          | 11.10           | 11.90        | <b>11.71</b> |      |
| 2   | <b>CoPant 97222</b> | 12.76        | 12.29        | 11.29        | 12.07        | 11.78           | 11.77        | 12.30          | 11.09           | 12.21        | <b>11.95</b> |      |
| 3   | <b>Co 05011</b>     | 12.61        | 12.30        | 11.34        | 11.88        | 12.27           | 12.33        | 11.95          | 11.98           | 12.08        | <b>12.08</b> | 3    |
|   | <b>Mean</b>         | <b>12.61</b> | <b>11.91</b> | <b>11.47</b> | <b>11.88</b> | <b>11.98</b>    | <b>12.03</b> | <b>12.11</b>   | <b>11.45</b>    | <b>12.09</b> | <b>11.95</b> |      |
|   | SE (m)              | 0.14         | 0.22         | 0.14         | 0.44         | 0.21            | 0.22         | 0.28           | 0.16            | 0.18         |              |      |
|   | CD at 5%            | 0.42         | 0.65         | 0.33         | NS           | 0.45            | NS           | NS             | 0.48            | 0.56         |              |      |
|   | CV                  | 1.96         | 3.19         | 2.11         | 4.57         | 2.18            | 3.18         | 3.99           | 3.64            | 2.69         |              |      |
| <b>Top three entries recorded &gt; 5% improvement over the best standard at each location</b> |                     |              |              |              |              |                 |              |                |                 |              |              |      |
|   | Rank-1              | CoLk 15207   |              | CoPb 15213   |              |                 |              |                |                 | CoLk 15207   |              |      |
|   | Rank-2              |              |              | Co 15026     |              |                 |              |                |                 |              |              |      |
|   | Rank-3              |              |              | CoLk 15206   |              |                 |              |                |                 |              |              |      |

**Number of locations where an entry recorded > 5 percent improvement over the best standards:** CoLk 15207 (2), Co 15026 (1), CoLk 15206 (1) and CoPb 15213 (1).

**Performance of the entries across locations:** The best standard Co 05011 recorded 12.08 % CCS in the zone. Test entries CoLk 15207 (12.40 %) and CoPb 15213 (12.11 %) recorded numerically higher CCS % than the best standard. However, none of the test entries showed > 5 percent improvement over the best standard.

**Table 4.7.4. Sucrose (%) at harvest**

| Sl. No  | Entry               | Faridkot     | Kapur -thala | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         | Rank |
|---|---------------------|--------------|--------------|--------------|--------------|-----------------|--------------|----------------|-----------------|--------------|--------------|------|
| 1   | <b>Co 15026</b>     | 17.13        | 17.17        | 17.78        | *            | 17.24           | 17.26        | 16.98          | 15.65           | 17.66        | <b>17.11</b> |      |
| 2   | <b>CoLk 15206</b>   | 17.71        | 16.99        | 17.49        | 17.85        | 16.45           | 17.69        | 17.86          | 16.82           | 17.86        | <b>17.41</b> | 3    |
| 3   | <b>CoLk 15207</b>   | 19.30        | 17.24        | 16.18        | 18.29        | 17.96           | 18.00        | 18.21          | 17.56           | 18.54        | <b>17.92</b> | 1    |
| 4   | <b>CoLk 15209</b>   | 18.30        | 17.01        | 17.14        | 17.64        | 17.21           | 17.33        | 17.24          | 16.93           | 17.77        | <b>17.40</b> |      |
| 5   | <b>CoPb 15213</b>   | 17.91        | 17.58        | 18.66        | 17.28        | 17.39           | 17.31        | 17.20          | 16.77           | 17.50        | <b>17.51</b> | 2    |
| 6   | <b>CoS 15232</b>    | 17.33        | 16.39        | 15.12        | 17.81        | 17.95           | 17.38        | 17.85          | 17.30           | 16.47        | <b>17.07</b> |      |
| 7   | <b>CoS 15233</b>    | 17.28        | 17.00        | 16.35        | 16.39        | 17.54           | 17.69        | 17.42          | 15.58           | 16.71        | <b>16.88</b> |      |
|   | Standards           |              |              |              |              |                 |              |                |                 |              |              |      |
| 1   | <b>CoS 767</b>      | 18.45        | 16.67        | 15.60        | 16.37        | 17.44           | 17.34        | 17.42          | 16.28           | 17.22        | <b>16.98</b> |      |
| 2   | <b>CoPant 97222</b> | 18.14        | 17.53        | 16.49        | 17.64        | 17.15           | 17.11        | 17.80          | 15.95           | 17.68        | <b>17.28</b> |      |
| 3   | <b>Co 05011</b>     | 17.98        | 17.53        | 16.56        | 17.44        | 17.94           | 17.92        | 17.43          | 17.25           | 17.55        | <b>17.51</b> | 2    |
|   | <b>Mean</b>         | <b>17.95</b> | <b>17.11</b> | <b>16.74</b> | <b>17.41</b> | <b>17.43</b>    | <b>17.50</b> | <b>17.54</b>   | <b>16.61</b>    | <b>17.49</b> | <b>17.31</b> |      |
|   | SE (m)              | 0.19         | 0.23         | 0.19         | 0.58         | 0.29            | 0.31         | 0.35           | 0.23            | 0.23         |              |      |
|   | CD at 5%            | 0.58         | 0.68         | 0.45         | NS           | 0.60            | NS           | NS             | 0.69            | 0.70         |              |      |
|   | CV                  | 1.87         | 2.33         | 1.95         | 4.06         | 2.02            | 3.08         | 3.48           | 2.14            | 2.33         |              |      |
| <b>Top three entries recorded &gt; 5% improvement over the best standard at each location</b> |                     |              |              |              |              |                 |              |                |                 |              |              |      |
|   | Rank-1              | CoLk 15207   |              | CoPb 15213   |              |                 |              |                |                 |              |              |      |
|   | Rank-2              |              |              | Co 15026     |              |                 |              |                |                 |              |              |      |
|   | Rank-3              |              |              | CoLk 15206   |              |                 |              |                |                 |              |              |      |

**Number of locations where an entry recorded > 5 percent improvement over the best standards:** Co 15026 (1), CoLk 15206 (1), CoLk 15207 (1) and CoPb 15213 (1).

**Performance of the entries across locations:** Co 05011 was the best among standards with zonal sucrose mean of 17.51%. CoLk 15207 (17.92%), CoPb 15213 (17.51%) and CoLk 15206 (17.41%) ranked as top three entries in the zone for sucrose %. No test entry showed > 5 percent improvement over the best standard.

**Table 4.7.5. Brix (%) at harvest**

| Sl. No | Entry        | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         |
|--------|--------------|--------------|--------------|--------------|--------------|-----------------|--------------|----------------|-----------------|--------------|--------------|
| 1      | Co 15026     | 18.90        | 19.20        | 20.30        | *            | 19.61           | 19.73        | 19.32          | 17.61           | 20.03        | 19.34        |
| 2      | CoLk 15206   | 19.70        | 19.30        | 20.00        | 20.71        | 18.78           | 20.33        | 20.24          | 18.86           | 20.13        | 19.78        |
| 3      | CoLk 15207   | 20.93        | 19.37        | 18.80        | 21.13        | 20.61           | 20.53        | 20.61          | 19.94           | 20.53        | 20.27        |
| 4      | CoLk 15209   | 20.03        | 18.77        | 19.70        | 20.49        | 19.68           | 19.83        | 19.67          | 19.52           | 19.60        | 19.70        |
| 5      | CoPb 15213   | 19.67        | 19.00        | 21.20        | 20.22        | 19.91           | 20.07        | 19.60          | 18.74           | 19.96        | 19.82        |
| 6      | CoS 15232    | 18.93        | 18.47        | 17.70        | 20.42        | 20.51           | 20.03        | 20.26          | 19.93           | 18.66        | 19.43        |
| 7      | CoS 15233    | 18.80        | 19.30        | 18.90        | 19.21        | 20.20           | 20.23        | 19.85          | 18.49           | 19.46        | 19.38        |
|        | Standards    |              |              |              |              |                 |              |                |                 |              |              |
| 1      | CoS 767      | 19.97        | 18.93        | 18.20        | 19.33        | 19.88           | 19.67        | 19.54          | 18.98           | 19.53        | 19.34        |
| 2      | CoPant 97222 | 19.80        | 19.27        | 19.10        | 20.42        | 19.68           | 19.57        | 20.19          | 17.84           | 20.06        | 19.55        |
| 3      | Co 05011     | 19.77        | 19.23        | 19.10        | 20.35        | 20.75           | 20.50        | 20.08          | 19.34           | 20.06        | 19.91        |
|        | <b>Mean</b>  | <b>19.65</b> | <b>19.08</b> | <b>19.31</b> | <b>20.25</b> | <b>19.96</b>    | <b>20.05</b> | <b>19.94</b>   | <b>18.92</b>    | <b>19.80</b> | <b>19.66</b> |
|        | SE (m)       | 0.22         | 0.54         | 0.18         | 0.53         | 0.32            | 0.35         | 0.31           | 0.25            | 0.23         |              |
|        | CD at 5%     | 0.64         | 0.51         | 0.44         | 1.13         | 0.67            | NS           | NS             | 0.74            | 0.69         |              |
|        | CV           | 1.91         | 1.55         | 1.64         | 3.21         | 1.96            | 3.00         | 2.68           | 3.84            | 2.03         |              |

Note: \* Data of Co 15026 was not recorded at Lucknow centre due to poor sprouting of ratoon crop.

**Table 4.7.6. Purity (%) at harvest**

| Sl. No | Entry               | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | <b>Co 15026</b>     | 90.64        | 89.42        | 87.51        | *            | 87.88          | 87.44        | 87.85         | 88.87          | 88.15        | <b>88.47</b> |
| 2      | <b>CoLk 15206</b>   | 89.92        | 88.04        | 87.29        | 86.17        | 87.57          | 87.00        | 88.21         | 89.17          | 88.73        | <b>88.01</b> |
| 3      | <b>CoLk 15207</b>   | 92.20        | 89.03        | 86.20        | 86.56        | 87.16          | 87.66        | 88.37         | 88.06          | 90.30        | <b>88.39</b> |
| 4      | <b>CoLk 15209</b>   | 91.35        | 90.62        | 87.02        | 86.12        | 87.42          | 87.36        | 87.65         | 86.73          | 90.69        | <b>88.33</b> |
| 5      | <b>CoPb 15213</b>   | 91.05        | 92.52        | 88.14        | 85.64        | 87.31          | 86.25        | 87.76         | 89.51          | 87.63        | <b>88.42</b> |
| 6      | <b>CoS 15232</b>    | 91.52        | 88.77        | 85.24        | 87.19        | 87.48          | 86.77        | 88.12         | 86.80          | 88.26        | <b>87.79</b> |
| 7      | <b>CoS 15233</b>    | 91.95        | 88.11        | 86.37        | 85.34        | 86.84          | 87.44        | 87.73         | 84.26          | 85.84        | <b>87.10</b> |
|        | Standards           |              |              |              |              |                |              |               |                |              |              |
| 1      | <b>CoS 767</b>      | 92.40        | 88.07        | 85.70        | 84.68        | 87.73          | 88.18        | 89.13         | 85.77          | 88.18        | <b>87.76</b> |
| 2      | <b>CoPant 97222</b> | 91.63        | 90.98        | 86.49        | 86.41        | 87.13          | 87.44        | 88.19         | 89.41          | 88.11        | <b>88.42</b> |
| 3      | <b>Co 05011</b>     | 90.98        | 91.14        | 86.55        | 85.69        | 86.45          | 87.41        | 86.81         | 89.19          | 87.47        | <b>87.97</b> |
|        | <b>Mean</b>         | <b>91.36</b> | <b>89.67</b> | <b>86.65</b> | <b>85.98</b> | <b>87.30</b>   | <b>87.30</b> | <b>87.98</b>  | <b>87.78</b>   | <b>88.33</b> | <b>88.04</b> |
|        | SE (m)              | 0.41         | 1.14         | 0.16         | 0.95         | 0.43           | 0.37         | 0.71          | 0.42           | 0.66         |              |
|        | CD at 5%            | 1.23         | 2.20         | 0.38         | NS           | NS             | NS           | NS            | 1.26           | 1.99         |              |
|        | CV                  | 0.78         | 3.89         | 0.32         | 1.35         | 0.60           | 0.74         | 1.39          | 3.21           | 1.30         |              |

**Table 4.7.7. Juice Extraction (%) at harvest**

| Sl. No | Entry               | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|---------------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|----------------|--------------|--------------|
| 1      | <b>Co 15026</b>     | 52.35        | 55.15        | 47.44        | *            | 50.89          |            | 57.45         | 47.23          | 63.85        | <b>53.48</b> |
| 2      | <b>CoLk 15206</b>   | 50.58        | 56.19        | 48.28        | 52.37        | 47.04          |            | 54.32         | 42.93          | 58.71        | <b>51.30</b> |
| 3      | <b>CoLk 15207</b>   | 48.49        | 51.55        | 42.71        | 50.44        | 49.21          |            | 55.26         | 46.96          | 58.66        | <b>50.41</b> |
| 4      | <b>CoLk 15209</b>   | 48.42        | 58.50        | 43.26        | 51.39        | 48.76          |            | 56.29         | 49.98          | 58.41        | <b>51.88</b> |
| 5      | <b>CoPb 15213</b>   | 50.87        | 55.65        | 48.01        | 52.05        | 44.56          |            | 55.24         | 48.47          | 58.40        | <b>51.66</b> |
| 6      | <b>CoS 15232</b>    | 47.38        | 49.82        | 44.61        | 53.04        | 47.90          |            | 57.33         | 43.98          | 66.79        | <b>51.36</b> |
| 7      | <b>CoS 15233</b>    | 52.79        | 54.01        | 45.76        | 51.61        | 50.41          |            | 57.32         | 46.05          | 52.78        | <b>51.34</b> |
|        | Standards           |              |              |              |              |                |            |               |                |              |              |
| 1      | <b>CoS 767</b>      | 49.88        | 52.86        | 47.50        | 53.88        | 49.27          |            | 57.00         | 43.49          | 54.84        | <b>51.09</b> |
| 2      | <b>CoPant 97222</b> | 54.49        | 51.98        | 47.62        | 51.96        | 47.35          |            | 55.80         | 44.42          | 66.05        | <b>52.46</b> |
| 3      | <b>Co 05011</b>     | 50.24        | 54.89        | 43.30        | 50.33        | 52.11          |            | 56.46         | 45.84          | 49.95        | <b>50.39</b> |
|        | <b>Mean</b>         | <b>50.55</b> | <b>54.06</b> | <b>45.85</b> | <b>51.90</b> | <b>48.75</b>   |            | <b>56.25</b>  | <b>45.94</b>   | <b>58.84</b> | <b>51.52</b> |
|        | SE (m)              | 0.92         | 1.00         | 0.62         | 2.49         | -              |            | 0.69          | 0.42           | 1.71         |              |
|        | CD at 5%            | 2.72         | 2.97         | 1.49         | NS           | -              |            | NS            | 1.27           | 5.14         |              |
|        | CV                  | 3.14         | 3.21         | 2.35         | 5.87         | -              |            | 2.11          | 6.75           | 5.05         |              |

**Table 4.7.8. Pol% in cane and Fibre (%) at harvest**

| Sl No | Entry        | Pol% in cane |              |                |               | Fibre (%) in cane |              |              |                |               |              |
|-------|--------------|--------------|--------------|----------------|---------------|-------------------|--------------|--------------|----------------|---------------|--------------|
|       |              | Kapurthala   | Lucknow      | Muzaffar-nagar | Shahja-hanpur | Mean              | Kapurthala   | Lucknow      | Muzaffar-nagar | Shahja-hanpur | Mean         |
| 1     | Co 15026     | 14.39        | *            | 13.22          | 12.80         | <b>13.47</b>      | 12.25        | *            | 13.96          | 14.61         | <b>13.61</b> |
| 2     | CoLk 15206   | 14.06        | 13.57        | 12.83          | 13.44         | <b>13.48</b>      | 14.02        | 13.95        | 14.11          | 14.74         | <b>14.20</b> |
| 3     | CoLk 15207   | 13.43        | 14.04        | 13.78          | 13.69         | <b>13.73</b>      | 12.27        | 13.24        | 13.85          | 14.82         | <b>13.55</b> |
| 4     | CoLk 15209   | 13.78        | 13.36        | 13.06          | 12.98         | <b>13.30</b>      | 13.28        | 14.26        | 14.18          | 14.70         | <b>14.11</b> |
| 5     | CoPb 15213   | 13.73        | 13.33        | 13.03          | 12.96         | <b>13.26</b>      | 14.19        | 12.82        | 14.38          | 14.69         | <b>14.02</b> |
| 6     | CoS 15232    | 13.70        | 13.31        | 13.39          | 13.45         | <b>13.46</b>      | 14.71        | 15.28        | 14.24          | 14.69         | <b>14.73</b> |
| 7     | CoS 15233    | 13.99        | 12.87        | 13.62          | 13.12         | <b>13.40</b>      | 13.49        | 11.53        | 13.71          | 14.66         | <b>13.35</b> |
|       | Standards    |              |              |                |               |                   |              |              |                |               |              |
| 1     | CoS 767      | 13.49        | 12.41        | 13.32          | 13.10         | <b>13.08</b>      | 14.14        | 14.20        | 14.35          | 14.81         | <b>14.38</b> |
| 2     | CoPant 97222 | 14.17        | 13.66        | 13.11          | 13.40         | <b>13.59</b>      | 14.09        | 12.54        | 14.04          | 14.73         | <b>13.85</b> |
| 3     | Co 05011     | 14.56        | 13.60        | 13.59          | 13.12         | <b>13.72</b>      | 13.53        | 12.01        | 13.92          | 14.72         | <b>13.54</b> |
|       | Mean         | <b>13.93</b> | <b>13.35</b> | <b>13.30</b>   | <b>13.21</b>  | <b>13.45</b>      | <b>13.60</b> | <b>13.31</b> | <b>14.07</b>   | <b>14.72</b>  | <b>13.93</b> |
|       | SE (m)       | 0.44         | 0.43         | -              | 0.27          |                   | 0.30         | 0.54         | -              | 0.05          |              |
|       | CD at 5%     | 0.41         | NS           | -              | NS            |                   | 0.89         | 1.15         | -              | NS            |              |
|       | CV           | 1.72         | 3.90         | -              | 3.49          |                   | 3.80         | 5.00         | -              | 0.61          |              |

**Table 4.7.9. Number of millable canes ('000/ha) at harvest**

| Sl. No | Entry        | Faridkot      | Kapurthala   | Kota         | Lucknow       | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         |
|--------|--------------|---------------|--------------|--------------|---------------|-----------------|--------------|----------------|-----------------|--------------|--------------|
| 1      | Co 15026     | 82.41         | 75.86        | 84.10        | *             | 98.14           | 31.33        | 85.68          | 107.63          | 44.14        | 76.16        |
| 2      | CoLk 15206   | 86.73         | 91.84        | 78.60        | 109.15        | 101.36          | 48.33        | 94.94          | 103.80          | 96.44        | 90.13        |
| 3      | CoLk 15207   | 88.43         | 84.43        | 81.90        | 118.32        | 91.60           | 36.00        | 104.81         | 124.31          | 88.31        | 90.90        |
| 4      | CoLk 15209   | 93.67         | 86.62        | 85.10        | 111.73        | 105.80          | 63.67        | 94.81          | 98.71           | 116.79       | 95.21        |
| 5      | CoPb 15213   | 138.89        | 98.23        | 85.60        | 99.00         | 114.93          | 41.67        | 98.40          | 118.08          | 115.78       | 101.18       |
| 6      | CoS 15232    | 141.67        | 90.37        | 80.90        | 97.07         | 109.37          | 42.00        | 107.16         | 130.80          | 111.92       | 101.25       |
| 7      | CoS 15233    | 81.17         | 75.86        | 77.90        | 104.48        | 104.44          | 45.33        | 96.30          | 98.51           | 107.44       | 87.94        |
|        | Standards    |               |              |              |               |                 |              |                |                 |              |              |
| 1      | CoS 767      | 112.04        | 85.67        | 80.60        | 106.94        | 110.37          | 54.67        | 98.15          | 115.79          | 86.80        | 94.56        |
| 2      | CoPant 97222 | 104.32        | 94.17        | 80.60        | 96.83         | 88.27           | 50.67        | 96.67          | 106.60          | 98.64        | 90.75        |
| 3      | Co 05011     | 117.44        | 66.47        | 78.60        | 116.51        | 96.54           | 64.33        | 84.94          | 119.51          | 92.62        | 93.00        |
|        | <b>Mean</b>  | <b>104.68</b> | <b>83.64</b> | <b>81.38</b> | <b>106.67</b> | <b>102.08</b>   | <b>47.80</b> | <b>96.19</b>   | <b>112.37</b>   | <b>95.89</b> | <b>92.30</b> |
|        | SE (m)       | 9.77          | 2.25         | 3.45         | 2.71          | 2.55            | 1.74         | 2.42           | 4.08            | 3.90         |              |
|        | CD at 5%     | 29.02         | 6.68         | 8.27         | 5.74          | 5.36            | 5.20         | 7.18           | 12.24           | 11.70        |              |
|        | CV           | 16.16         | 4.55         | 7.34         | 3.11          | 8.27            | 6.29         | 4.35           | 5.19            | 7.05         |              |



**Table 4.7.10 Stalk length (cm) at harvest**

| Sl. No | Entry               | Faridkot      | Kapurthala    | Kota          | Lucknow       | Muzaffar-nagar | Pant-nagar    | Shahja-hanpur | Sriganga-nagar | Uchani        | Mean          |
|--------|---------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|
| 1      | <b>Co 15026</b>     | 215.33        | 205.30        | 130.00        | *             | 175.00         | 159.00        | 177.58        | 226.00         | 175.53        | <b>182.97</b> |
| 2      | <b>CoLk 15206</b>   | 193.00        | 205.80        | 152.00        | 176.00        | 188.00         | 231.00        | 178.19        | 206.00         | 215.46        | <b>193.94</b> |
| 3      | <b>CoLk 15207</b>   | 209.56        | 240.80        | 128.00        | 182.67        | 217.00         | 251.00        | 193.74        | 237.00         | 218.80        | <b>208.73</b> |
| 4      | <b>CoLk 15209</b>   | 162.67        | 224.80        | 170.00        | 168.33        | 176.00         | 243.00        | 183.98        | 236.00         | 215.06        | <b>197.76</b> |
| 5      | <b>CoPb 15213</b>   | 211.89        | 236.00        | 149.00        | 159.33        | 194.00         | 194.00        | 178.61        | 218.00         | 200.06        | <b>193.43</b> |
| 6      | <b>CoS 15232</b>    | 227.78        | 240.10        | 162.00        | 162.33        | 192.00         | 257.00        | 199.81        | 235.00         | 232.80        | <b>212.09</b> |
| 7      | <b>CoS 15233</b>    | 218.11        | 232.70        | 145.00        | 173.00        | 228.00         | 249.00        | 207.38        | 212.00         | 221.40        | <b>209.62</b> |
|        | Standards           |               |               |               |               |                |               |               |                |               |               |
| 1      | <b>CoS 767</b>      | 165.22        | 225.60        | 130.00        | 168.67        | 204.00         | 230.00        | 202.00        | 239.00         | 215.06        | <b>197.73</b> |
| 2      | <b>CoPant 97222</b> | 214.44        | 205.00        | 125.00        | 171.00        | 197.00         | 259.00        | 178.06        | 199.00         | 217.06        | <b>196.17</b> |
| 3      | <b>Co 05011</b>     | 217.11        | 193.50        | 125.00        | 157.33        | 163.00         | 217.00        | 177.89        | 220.00         | 174.53        | <b>182.82</b> |
|        | <b>Mean</b>         | <b>203.51</b> | <b>221.00</b> | <b>142.00</b> | <b>168.74</b> | <b>193.00</b>  | <b>229.00</b> | <b>187.72</b> | <b>223.00</b>  | <b>208.58</b> | <b>197.39</b> |
|        | SE (m)              | 7.82          | 0.04          | 7.00          | 5.07          | 13.00          | 6.00          | 6.18          | 21.00          | 6.53          |               |
|        | CD at 5%            | 23.22         | 15.90         | 17.00         | 10.74         | 28.00          | 18.00         | 18.35         | 60.00          | 19.56         |               |
|        | CV                  | 6.65          | 4.20          | 8.59          | 3.68          | 8.36           | 4.48          | 5.70          | 6.48           | 5.42          |               |

**Table 4.7.11 Stalk diameter (cm) at harvest**

| Sl. No | Entry        | Faridkot    | Kapurthala  | Kota        | Lucknow     | Muzaffar-nagar | Pant-nagar  | Shahja-hanpur | Sriganga-nagar | Uchani      | Mean        |
|--------|--------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|----------------|-------------|-------------|
| 1      | Co 15026     | 2.59        | 2.43        | 2.67        | *           | 2.04           | 3.32        | 2.56          | 2.15           | 3.10        | 2.61        |
| 2      | CoLk 15206   | 2.44        | 2.16        | 2.37        | 2.57        | 1.65           | 2.49        | 2.33          | 2.37           | 2.26        | 2.29        |
| 3      | CoLk 15207   | 2.22        | 2.29        | 1.90        | 2.45        | 1.94           | 2.34        | 2.28          | 2.22           | 2.13        | 2.20        |
| 4      | CoLk 15209   | 2.53        | 2.24        | 2.23        | 2.38        | 2.06           | 2.43        | 2.23          | 2.37           | 2.15        | 2.29        |
| 5      | CoPb 15213   | 2.23        | 2.10        | 2.57        | 2.24        | 1.92           | 2.23        | 2.07          | 2.15           | 1.96        | 2.16        |
| 6      | CoS 15232    | 2.07        | 2.31        | 2.23        | 2.54        | 1.78           | 2.54        | 2.22          | 2.29           | 2.16        | 2.24        |
| 7      | CoS 15233    | 2.62        | 2.33        | 2.20        | 2.44        | 2.24           | 2.58        | 2.35          | 2.55           | 2.51        | 2.42        |
|        | Standards    |             |             |             |             |                |             |               |                |             |             |
| 1      | CoS 767      | 2.43        | 2.16        | 1.74        | 2.27        | 2.12           | 2.41        | 2.16          | 2.29           | 2.25        | 2.20        |
| 2      | CoPant 97222 | 2.63        | 2.20        | 1.88        | 2.50        | 2.31           | 2.55        | 2.35          | 2.43           | 2.24        | 2.34        |
| 3      | Co 05011     | 2.56        | 2.22        | 2.63        | 2.41        | 2.18           | 2.61        | 2.43          | 2.41           | 2.52        | 2.44        |
|        | <b>Mean</b>  | <b>2.43</b> | <b>2.24</b> | <b>2.24</b> | <b>2.42</b> | <b>2.02</b>    | <b>2.55</b> | <b>2.30</b>   | <b>2.32</b>    | <b>2.33</b> | <b>2.32</b> |
|        | SE (m)       | 0.07        | 2.08        | 0.11        | 0.07        | 0.09           | 0.07        | 0.07          | 0.05           | 0.05        |             |
|        | CD at 5%     | 0.20        | NS          | 0.27        | 0.16        | 0.19           | 0.22        | 0.20          | 0.14           | 0.15        |             |
|        | CV           | 4.84        | 5.16        | 8.71        | 3.76        | 5.58           | 4.91        | 5.03          | 8.52           | 3.82        |             |

**Table 4.7.12 Single cane weight (kg) at harvest**

| Sl. No | Entry        | Faridkot    | Kapurthala  | Kota        | Lucknow     | Muzaffar-nagar | Pant-nagar  | Shahja-hanpur | Sriganga-nagar | Uchani      | Mean        |
|--------|--------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|----------------|-------------|-------------|
| 1      | Co 15026     | 1.09        | 1.01        | 0.93        | *           | 0.83           | 1.43        | 0.80          | 0.95           | 0.99        | <b>1.00</b> |
| 2      | CoLk 15206   | 0.77        | 0.99        | 0.92        | 0.81        | 0.80           | 1.58        | 0.82          | 1.04           | 0.97        | <b>0.97</b> |
| 3      | CoLk 15207   | 0.75        | 0.98        | 0.95        | 0.76        | 0.71           | 1.45        | 0.75          | 1.29           | 0.83        | <b>0.94</b> |
| 4      | CoLk 15209   | 0.73        | 0.92        | 0.93        | 0.65        | 0.64           | 1.47        | 0.70          | 1.14           | 0.74        | <b>0.88</b> |
| 5      | CoPb 15213   | 0.70        | 0.83        | 1.02        | 0.76        | 0.59           | 0.97        | 0.63          | 0.92           | 0.68        | <b>0.79</b> |
| 6      | CoS 15232    | 0.74        | 0.89        | 1.06        | 0.68        | 0.70           | 1.65        | 0.71          | 1.18           | 0.82        | <b>0.94</b> |
| 7      | CoS 15233    | 1.03        | 0.99        | 0.96        | 0.71        | 0.91           | 1.70        | 0.78          | 1.21           | 0.84        | <b>1.01</b> |
|        | Standards    |             |             |             |             |                |             |               |                |             |             |
| 1      | CoS 767      | 0.68        | 0.87        | 0.94        | 0.65        | 0.61           | 1.35        | 0.74          | 1.19           | 0.96        | <b>0.89</b> |
| 2      | CoPant 97222 | 1.08        | 0.90        | 0.95        | 0.73        | 0.70           | 1.80        | 0.74          | 1.10           | 0.90        | <b>0.99</b> |
| 3      | Co 05011     | 0.98        | 0.87        | 0.94        | 0.62        | 0.77           | 1.41        | 0.79          | 1.19           | 0.79        | <b>0.93</b> |
|        | <b>Mean</b>  | <b>0.85</b> | <b>0.92</b> | <b>0.96</b> | <b>0.71</b> | <b>0.73</b>    | <b>1.48</b> | <b>0.75</b>   | <b>1.12</b>    | <b>0.85</b> | <b>0.93</b> |
|        | SE (m)       | 0.05        | 2.24        | 0.06        | 0.03        | 0.01           | 0.03        | 0.02          | 0.05           | 0.01        |             |
|        | CD at 5%     | 0.14        | 0.12        | 0.14        | 0.06        | 0.03           | 0.09        | 0.05          | 0.16           | 0.05        |             |
|        | CV           | 9.54        | 7.29        | 10.73       | 5.27        | 2.28           | 3.64        | 4.09          | 2.59           | 3.85        |             |

**Table 4.7.13** Number of shoots ( '000/ha) at 180 days after ratooning

| Sl. No | Entry        | Faridkot      | Kapurthala   | Kota         | Lucknow       | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Uchani        | Mean          |
|--------|--------------|---------------|--------------|--------------|---------------|----------------|------------|---------------|----------------|---------------|---------------|
| 1      | Co 15026     | 92.75         | 79.83        | 91.90        | *             |                |            |               |                | 47.76         | <b>78.06</b>  |
| 2      | CoLk 15206   | 100.46        | 95.32        | 86.40        | 111.65        |                |            |               |                | 101.64        | <b>99.09</b>  |
| 3      | CoLk 15207   | 97.07         | 88.19        | 89.50        | 121.37        |                |            |               |                | 94.29         | <b>98.08</b>  |
| 4      | CoLk 15209   | 121.91        | 91.16        | 88.80        | 115.82        |                |            |               |                | 124.64        | <b>108.47</b> |
| 5      | CoPb 15213   | 146.60        | 102.04       | 93.50        | 104.40        |                |            |               |                | 123.08        | <b>113.92</b> |
| 6      | CoS 15232    | 169.75        | 95.10        | 89.50        | 100.46        |                |            |               |                | 116.81        | <b>114.32</b> |
| 7      | CoS 15233    | 92.90         | 90.82        | 80.60        | 107.72        |                |            |               |                | 111.36        | <b>96.68</b>  |
|        | Standards    |               |              |              |               |                |            |               |                |               |               |
| 1      | CoS 767      | 120.06        | 99.44        | 90.00        | 110.65        |                |            |               |                | 93.99         | <b>102.83</b> |
| 2      | CoPant 97222 | 124.23        | 69.95        | 92.00        | 99.46         |                |            |               |                | 105.21        | <b>98.17</b>  |
| 3      | Co 05011     | 138.43        | 88.02        | 83.60        | 119.06        |                |            |               |                | 97.68         | <b>105.36</b> |
|        | <b>Mean</b>  | <b>120.42</b> | <b>89.99</b> | <b>88.57</b> | <b>110.07</b> |                |            |               |                | <b>101.64</b> | <b>102.14</b> |
|        | SE (m)       | 11.05         | 5.35         | 4.71         | 2.60          |                |            |               |                | 4.43          |               |
|        | CD at 5%     | 32.84         | 6.19         | 11.29        | 5.51          |                |            |               |                | 13.27         |               |
|        | CV           | 15.90         | 4.01         | 9.21         | 2.89          |                |            |               |                | 7.55          |               |

**Table 4.7.14 Number of tillers (‘000/ha) at 90 days after ratooning**

| Sl. No | Entry        | Faridkot      | Kapurthala   | Kota          | Lucknow       | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Uchani        | Mean          |
|--------|--------------|---------------|--------------|---------------|---------------|----------------|------------|---------------|----------------|---------------|---------------|
| 1      | Co 15026     | 128.24        | 84.84        | 108.77        | *             | 160.98         | **         | 182.84        | 158.21         | 62.43         | 126.62        |
| 2      | CoLk 15206   | 141.05        | 100.30       | 101.73        | 115.59        | 164.56         |            | 189.26        | 152.59         | 159.97        | 140.63        |
| 3      | CoLk 15207   | 108.49        | 94.73        | 104.20        | 123.38        | 161.35         |            | 196.54        | 182.74         | 126.29        | 137.21        |
| 4      | CoLk 15209   | 176.08        | 95.55        | 104.32        | 118.75        | 179.25         |            | 179.38        | 145.11         | 170.64        | 146.14        |
| 5      | CoPb 15213   | 188.89        | 105.78       | 110.00        | 108.02        | 178.76         |            | 191.85        | 173.58         | 174.41        | 153.91        |
| 6      | CoS 15232    | 251.23        | 101.41       | 101.36        | 102.93        | 181.85         |            | 202.47        | 192.28         | 143.48        | 159.63        |
| 7      | CoS 15233    | 118.98        | 96.53        | 103.95        | 111.50        | 191.97         |            | 179.38        | 144.81         | 153.36        | 137.56        |
|        | Standards    |               |              |               |               |                |            |               |                |               |               |
| 1      | CoS 767      | 156.33        | 103.02       | 102.72        | 114.27        | 191.11         |            | 206.67        | 170.21         | 123.99        | 146.04        |
| 2      | CoPant 97222 | 169.60        | 74.34        | 103.83        | 102.55        | 138.02         |            | 185.06        | 156.70         | 127.55        | 132.21        |
| 3      | Co 05011     | 188.73        | 94.22        | 99.51         | 122.53        | 165.92         |            | 177.41        | 175.68         | 133.35        | 144.67        |
|        | <b>Mean</b>  | <b>162.76</b> | <b>95.07</b> | <b>104.04</b> | <b>113.28</b> | <b>171.34</b>  |            | <b>189.09</b> | <b>165.19</b>  | <b>137.54</b> | <b>142.29</b> |
|        | SE (m)       | 11.53         | 0.07         | 5.02          | 2.42          | 2.63           |            | 3.67          | 3.83           | 7.69          |               |
|        | CD at 5%     | 34.25         | 6.64         | 12.02         | 5.12          | 5.53           |            | 10.92         | 11.48          | 23.05         |               |
|        | CV           | 12.26         | 4.08         | 8.35          | 2.61          | 5.08           |            | 3.37          | 5.22           | 9.69          |               |

**Note:** \* Data of Co 15026 was not recorded at Lucknow centre due to poor sprouting of ratoon crop.

\*\* Panthagar centre did not report data on tiller count.

**Table 4.7.15 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S. No | Genotype     | Lucknow | Shahjahan pur | Pantnagar | Muzzaffarnagar | Karnal | Uchani | Kapurthala | Faridkot | Sriganganagar | Kota   |
|-------|--------------|---------|---------------|-----------|----------------|--------|--------|------------|----------|---------------|--------|
| 1     | Co 15026     | Poor    | Poor          | Poor      | On par         | NA     | Poor   | On par     | Poor     | Better        | Better |
| 2     | CoLk 15206   | Poor    | On par        | On Par    | Better         | NA     | On par | On par     | Poor     | Poor          | On par |
| 3     | CoLk 15207   | On par  | Better        | Poor      | On par         | NA     | Poor   | Better     | Poor     | Poor          | Better |
| 4     | CoLk 15209   | Better  | On par        | On par    | Better         | NA     | On par | On par     | On par   | Better        | On par |
| 5     | CoPb 15213   | Poor    | On par        | On Par    | Better         | NA     | Poor   | Better     | On par   | Poor          | On par |
| 6     | CoS 15232    | Poor    | On par        | Poor      | Better         | NA     | Better | Better     | On par   | Poor          | Better |
| 7     | CoS 15233    | On par  | Better        | On par    | Better         | NA     | On par | On par     | On par   | On par        | Better |
|       | Standards    |         |               |           |                |        |        |            |          |               |        |
| 1     | CoS 767      | II      | Best          | III       | Best           | NA     | II     | II         | III      | III           | II     |
| 2     | CoPant 97222 | III     | III           | Best      | III            | NA     | Best   | III        | Best     | Best          | III    |
| 3     | Co 05011     | Best    | II            | II        | II             | NA     | III    | Best       | II       | II            | Best   |

NA= Not allotted.

#### 4.8 ADVANCED VARIETAL TRIAL (MIDLATE) Pooled Data of 2 Plant Crops + 1 Ratoon Trials

|                               |  |
|-------------------------------|--|
| Centres (9)                   | Faridkot, Kapurthala, Kota, Lucknow, Muzaffarnagar, Pantnagar, Shahjahanpur, Sriganaganagar and Uchani |
| Entries (7)                   | Co 15026, CoLk 15206, CoLk 15207, CoLk 15209, CoPb 15213, CoS 15232 and CoS 15233.                     |
| Standards (3)                 | CoS 767, CoPant 97222, Co 05011  |
| Design                        | RBD  |
| Replications                  | 3  |
| Plot size                     | Gross : 8 rows × 6 m × 0.90 m<br>Net : 6 rows × 5 m × 0.90 m   |
| Month of Planting / Ratooning | AVT I Plant : February /March, 2019<br>AVT II Plant & Ratoon : February / March, 2020                  |

Seven midlate entries were evaluated along with three standards during 2019-20 in AVT-I Plant and during 2020-21 in AVT-II Plant as well as AVT-Ratoon at 9 locations in North West Zone. The mean CCS yield, cane yield, CCS % and sucrose % of two plant crops and one ratoon are presented in Tables 4.8.1 to 4.8.4 as well as in Figure 4.8.1 to 4.8.4.

**Commercial cane sugar yield (CCS yield t/ha):** Co 05011 was the best among the standards in the zone for CCS yield (10.86 t/ha) (Table 4.8.1 & Fig. 4.8.1). Three test entries *viz.*, Co 15232 (11.43 t/ha), CoPb 15233 (11.34 t/ha) and CoLk 15206 (11.14 t/ha) recorded numerically higher CCS yield than the best standard. However, the per cent improvement of CCS yield in these entries were less than 10 %.

**Cane yield (t/ha):** Among the standards, Co 05011 was the best in the zone with zonal mean of 85.93 t/ha. Three test entries *viz.* Co 15233 (93.48 t/ha), CoPb 15232 (91.17 t/ha) and CoLk 15206 (87.84 t/ha) recorded numerically higher cane yield than the best standard (Table 4.8.2 & Fig. 4.8.2), although the per cent improvement over Co 05011 was less than 10 %.

**CCS % at harvest:** Co 05011 was the best standard for CCS % (Table 4.8.3 & Fig. 4.8.3). Its zonal mean was 12.60 %. Three test entries namely, CoLk 15207 (13.00), Co 15026 (12.61) and CoLk 15206 (12.61) recorded numerically higher CCS % than Co 05011. Nonetheless, the per cent improvement of CCS % in these entries over Co 05011 was lesser than 5 %.

**Sucrose % at harvest:** Among the standards, Co 05011 recorded the highest sucrose % in the zone (18.17) (Table 4.8.3 & Fig. 4.8.3). Two test entries that recorded numerically higher sucrose % than Co 05011 were CoLk 15207 (18.71) and CoLk 15206 (18.21). However, the per cent improvement of sucrose % in these entries over Co 05011 was lesser than 5 %.

Thus, on the basis of criteria set for identifying qualifying entry *i.e.* 10 % improvement in cane yield with numerically superior in sucrose content or 5 % improvement in sucrose % with numerically superior in cane yield, none of the test entries could be identified as qualifying entry.

**Table 4.8.1. CCS (t/ha) at harvest**

| Sl. No   | Entry        | Faridkot     | Kapur -thala | Kota        | Lucknow      | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         | Rank |
|--|--------------|--------------|--------------|-------------|--------------|-----------------|--------------|----------------|-----------------|--------------|--------------|------|
| 1  | Co 15026     | 12.08        | 10.05        | 10.05       | 7.93         | 9.33            | 13.19        | 10.81          | 10.70           | 8.77         | 10.32        |      |
| 2  | CoLk 15206   | 9.98         | 10.52        | 9.91        | 12.67        | 9.94            | 13.23        | 11.69          | 11.06           | 11.22        | 11.14        | 3    |
| 3  | CoLk 15207   | 10.29        | 11.78        | 9.62        | 13.30        | 9.10            | 9.04         | 12.09          | 11.29           | 10.31        | 10.76        |      |
| 4  | CoLk 15209   | 8.91         | 8.76         | 9.78        | 9.39         | 9.12            | 13.46        | 9.87           | 11.84           | 10.09        | 10.13        |      |
| 5  | CoPb 15213   | 12.30        | 10.88        | 10.11       | 9.70         | 8.45            | 11.04        | 10.50          | 10.75           | 9.19         | 10.32        |      |
| 6  | CoS 15232    | 12.42        | 10.53        | 10.81       | 9.75         | 10.55           | 14.78        | 11.71          | 11.55           | 10.75        | 11.43        | 1    |
| 7  | CoS 15233    | 11.84        | 10.71        | 10.40       | 9.50         | 11.47           | 14.12        | 11.42          | 11.60           | 11.02        | 11.34        | 2    |
|  | Standards    |              |              |             |              |                 |              |                |                 |              |              |      |
| 1  | CoS 767      | 10.51        | 9.25         | 8.60        | 9.01         | 8.51            | 11.77        | 10.12          | 11.69           | 9.82         | 9.92         |      |
| 2  | CoPant 97222 | 13.91        | 7.72         | 9.27        | 9.16         | 8.61            | 16.88        | 10.08          | 11.38           | 10.53        | 10.84        |      |
| 3  | Co 05011     | 13.09        | 9.85         | 9.26        | 9.80         | 9.17            | 15.16        | 9.91           | 11.62           | 9.85         | 10.86        |      |
|  | <b>Mean</b>  | <b>11.55</b> | <b>10.00</b> | <b>9.78</b> | <b>10.06</b> | <b>9.41</b>     | <b>13.27</b> | <b>10.82</b>   | <b>11.35</b>    | <b>10.15</b> | <b>10.71</b> |      |
| <b>Top three entries recorded &gt; 10% improvement over the best standard at each location</b> |              |              |              |             |              |                 |              |                |                 |              |              |      |
|  | Rank-1       |              | CoLk 15207   | CoS 15232   | CoLk 15207   | CoS 15233       |              | CoLk 15207     |                 |              |              |      |
|  | Rank-2       |              | CoPb 15213   | CoS 15233   | CoLk 15206   | CoS 15232       |              | CoS 15232      |                 |              |              |      |
|  | Rank-3       |              |              |             |              |                 |              | CoLk 15206     |                 |              |              |      |



**Table 4.8.2. Cane yield (t/ha) at harvest**

| Sl. No   | Entry               | Faridkot     | Kapur -thala | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar   | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         | Rank |
|--|---------------------|--------------|--------------|--------------|--------------|-----------------|---------------|----------------|-----------------|--------------|--------------|------|
| 1  | <b>Co 15026</b>     | 93.91        | 79.77        | 81.96        | 59.17        | 74.40           | 98.52         | 81.28          | 91.35           | 67.73        | <b>81.13</b> |      |
| 2  | <b>CoLk 15206</b>   | 75.98        | 86.41        | 79.96        | 93.98        | 82.14           | 99.58         | 86.57          | 94.68           | 91.24        | <b>87.84</b> | 3    |
| 3  | <b>CoLk 15207</b>   | 73.68        | 91.92        | 77.57        | 95.76        | 73.21           | 67.13         | 89.20          | 93.96           | 80.96        | <b>82.60</b> |      |
| 4  | <b>CoLk 15209</b>   | 65.61        | 70.57        | 82.00        | 72.61        | 74.32           | 105.14        | 75.83          | 97.44           | 82.38        | <b>80.66</b> |      |
| 5  | <b>CoPb 15213</b>   | 96.59        | 87.07        | 79.57        | 74.57        | 68.35           | 86.32         | 79.53          | 88.27           | 76.97        | <b>81.92</b> |      |
| 6  | <b>CoS 15232</b>    | 95.36        | 87.18        | 89.71        | 72.43        | 84.65           | 113.82        | 88.20          | 97.76           | 91.40        | <b>91.17</b> | 2    |
| 7  | <b>CoS 15233</b>    | 97.20        | 88.44        | 85.62        | 77.77        | 90.82           | 111.84        | 88.72          | 106.47          | 94.41        | <b>93.48</b> | 1    |
|  | Standards           |              |              |              |              |                 |               |                |                 |              |              |      |
| 1  | <b>CoS 767</b>      | 78.11        | 76.70        | 74.89        | 72.67        | 69.21           | 94.77         | 78.03          | 105.03          | 83.98        | <b>81.49</b> |      |
| 2  | <b>CoPant 97222</b> | 103.73       | 60.80        | 77.90        | 69.64        | 68.23           | 129.06        | 75.61          | 98.02           | 89.47        | <b>85.83</b> |      |
| 3  | <b>Co 05011</b>     | 99.21        | 79.26        | 76.82        | 74.37        | 73.87           | 117.52        | 74.57          | 96.81           | 80.93        | <b>85.93</b> |      |
|  | <b>Mean</b>         | <b>87.98</b> | <b>80.81</b> | <b>80.60</b> | <b>76.84</b> | <b>75.94</b>    | <b>102.37</b> | <b>81.75</b>   | <b>96.98</b>    | <b>83.95</b> | <b>85.25</b> |      |
| <b>Top three entries recorded &gt; 10% improvement over the best standard at each location</b> |                     |              |              |              |              |                 |               |                |                 |              |              |      |
|  | Rank-1              |              | CoLk 15207   | CoS 15232    | CoLk 15207   | CoS 15233       |               | CoLk 15207     |                 |              |              |      |
|  | Rank-2              |              | CoS 15233    |              | CoLk 15206   | CoS 15232       |               | CoS 15233      |                 |              |              |      |
|  | Rank-3              |              |              |              |              |                 |               | CoS 15232      |                 |              |              |      |

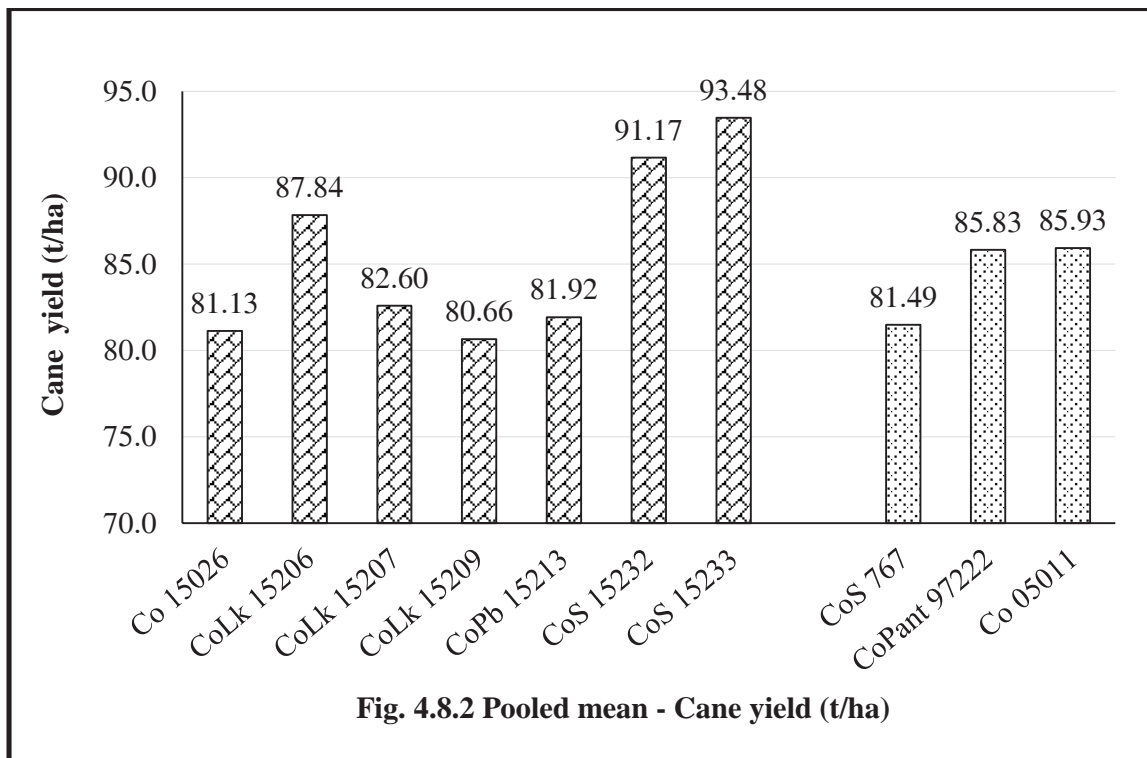
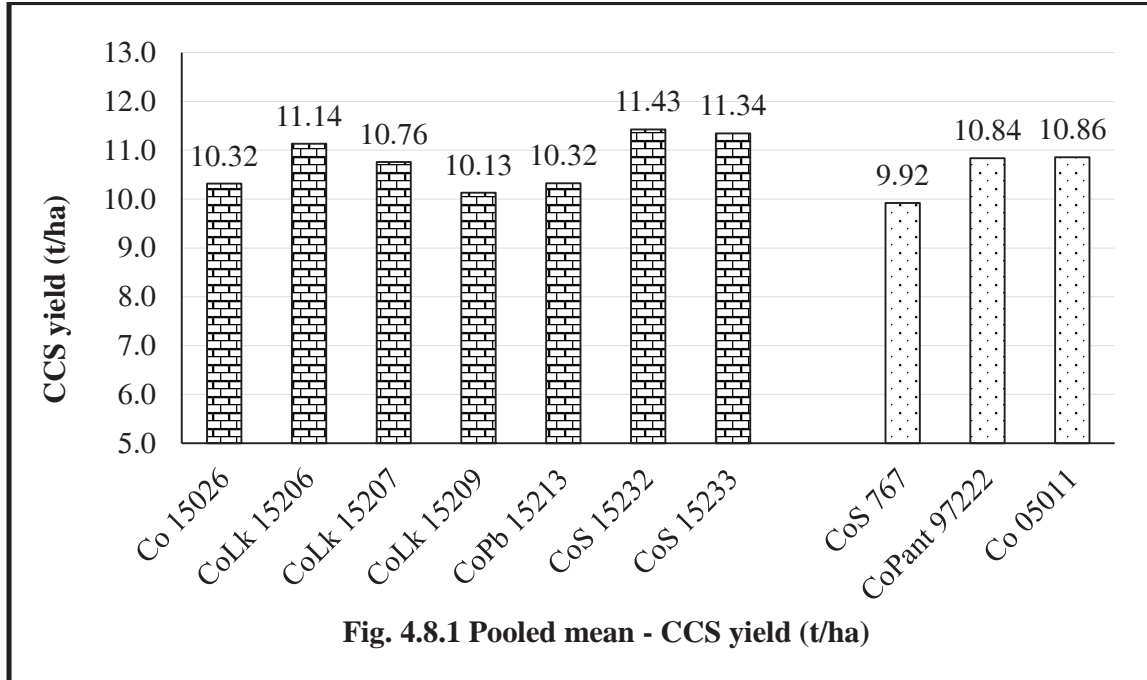
**Table 4.8.3. CCS (%) at harvest**

| Sl. No  | Entry        | Faridkot     | Kapur -thala | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         | Rank |
|---|--------------|--------------|--------------|--------------|--------------|-----------------|--------------|----------------|-----------------|--------------|--------------|------|
| 1   | Co 15026     | 12.73        | 12.58        | 12.24        | 13.05        | 12.53           | 13.02        | 13.17          | 11.74           | 12.82        | 12.61        | 2    |
| 2   | CoLk 15206   | 12.96        | 12.16        | 12.32        | 13.42        | 12.16           | 13.16        | 13.43          | 11.58           | 12.32        | 12.61        | 2    |
| 3   | CoLk 15207   | 13.94        | 12.78        | 12.40        | 13.85        | 12.50           | 13.35        | 13.50          | 11.93           | 12.74        | 13.00        | 1    |
| 4   | CoLk 15209   | 13.52        | 12.41        | 11.99        | 12.87        | 12.26           | 12.74        | 12.96          | 12.07           | 12.24        | 12.56        | 3    |
| 5   | CoPb 15213   | 12.70        | 12.49        | 12.70        | 12.95        | 12.33           | 12.59        | 13.03          | 12.07           | 11.96        | 12.53        |      |
| 6   | CoS 15232    | 12.94        | 12.04        | 12.06        | 13.55        | 12.46           | 12.81        | 13.22          | 11.83           | 11.75        | 12.52        |      |
| 7   | CoS 15233    | 12.13        | 12.11        | 12.16        | 12.08        | 12.61           | 12.56        | 12.81          | 10.77           | 11.66        | 12.10        |      |
|   | Standards    |              |              |              |              |                 |              |                |                 |              |              |      |
| 1   | CoS 767      | 13.41        | 12.05        | 11.49        | 12.31        | 12.18           | 12.40        | 12.94          | 11.89           | 11.71        | 12.26        |      |
| 2   | CoPant 97222 | 13.34        | 12.70        | 11.91        | 13.13        | 12.26           | 12.90        | 13.28          | 11.56           | 11.78        | 12.54        |      |
| 3   | Co 05011     | 13.11        | 12.43        | 12.03        | 13.17        | 12.40           | 12.85        | 13.24          | 11.98           | 12.16        | 12.60        |      |
|   | <b>Mean</b>  | <b>13.08</b> | <b>12.37</b> | <b>12.13</b> | <b>13.00</b> | <b>12.37</b>    | <b>12.84</b> | <b>13.16</b>   | <b>11.74</b>    | <b>12.11</b> | <b>12.53</b> |      |
| <b>Top three entries recorded &gt; 5% improvement over the best standard at each location</b> |              |              |              |              |              |                 |              |                |                 |              |              |      |
|   | Rank-1       |              |              | CoPb 15213   | CoLk 15207   |                 |              |                |                 | Co 15026     |              |      |
|   | Rank-2       |              |              |              |              |                 |              |                |                 |              |              |      |
|   | Rank-3       |              |              |              |              |                 |              |                |                 |              |              |      |

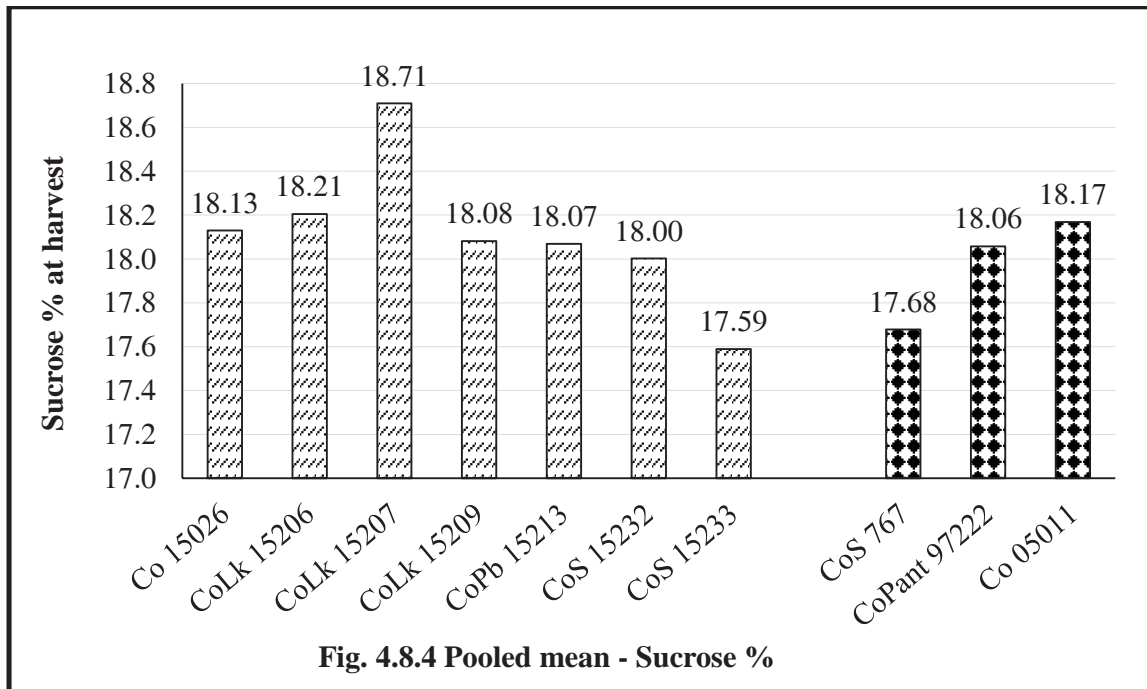
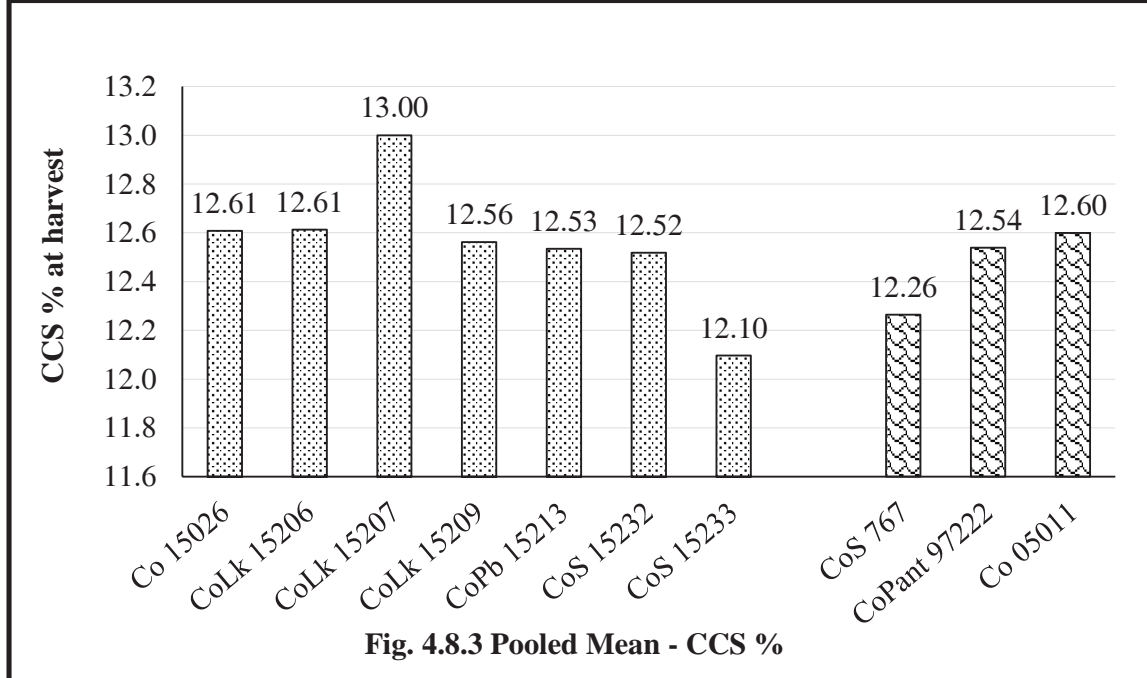
**Table 4.8.4. Sucrose (%) at harvest**

| Sl. No  | Entry        | Faridkot     | Kapur -thala | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         | Rank |
|---|--------------|--------------|--------------|--------------|--------------|-----------------|--------------|----------------|-----------------|--------------|--------------|------|
| 1   | Co 15026     | 18.18        | 17.96        | 17.78        | 18.73        | 18.17           | 18.96        | 18.69          | 16.85           | 18.38        | 18.13        |      |
| 2   | CoLk 15206   | 18.50        | 17.52        | 17.89        | 19.35        | 17.68           | 19.18        | 19.05          | 16.85           | 17.82        | 18.21        | 2    |
| 3   | CoLk 15207   | 19.78        | 18.29        | 18.00        | 19.93        | 18.27           | 19.41        | 19.14          | 17.33           | 18.21        | 18.71        | 1    |
| 4   | CoLk 15209   | 19.21        | 17.71        | 17.44        | 18.64        | 17.80           | 18.52        | 18.40          | 17.42           | 17.58        | 18.08        |      |
| 5   | CoPb 15213   | 18.11        | 17.81        | 18.41        | 18.86        | 17.92           | 18.29        | 18.49          | 17.40           | 17.31        | 18.07        |      |
| 6   | CoS 15232    | 18.38        | 17.13        | 17.53        | 19.49        | 18.07           | 18.62        | 18.69          | 17.14           | 16.98        | 18.00        |      |
| 7   | CoS 15233    | 17.34        | 17.36        | 17.67        | 17.43        | 18.30           | 18.17        | 18.21          | 16.89           | 16.92        | 17.59        |      |
|   | Standards    |              |              |              |              |                 |              |                |                 |              |              |      |
| 1   | CoS 767      | 19.05        | 17.29        | 16.77        | 17.77        | 17.85           | 17.95        | 18.34          | 17.15           | 16.93        | 17.68        |      |
| 2   | CoPant 97222 | 18.94        | 18.10        | 17.33        | 18.99        | 17.78           | 18.69        | 18.84          | 16.73           | 17.11        | 18.06        |      |
| 3   | Co 05011     | 18.62        | 17.76        | 17.50        | 19.10        | 18.05           | 18.66        | 18.82          | 17.39           | 17.61        | 18.17        | 3    |
|   | <b>Mean</b>  | <b>18.61</b> | <b>17.69</b> | <b>17.63</b> | <b>18.79</b> | <b>17.99</b>    | <b>18.64</b> | <b>18.67</b>   | <b>17.11</b>    | <b>17.48</b> | <b>18.07</b> |      |
| <b>Top three entries recorded &gt; 5% improvement over the best standard at each location</b> |              |              |              |              |              |                 |              |                |                 |              |              |      |
|   | Rank-1       |              |              | CoPb 15213   |              |                 |              |                |                 |              |              |      |
|   | Rank-2       |              |              |              |              |                 |              |                |                 |              |              |      |
|   | Rank-3       |              |              |              |              |                 |              |                |                 |              |              |      |

**Graphical representation of data of pooled mean of 2 Plant crops and 1 Ratoon trials conducted with midlate entries in NWZ**



**Graphical representation of data of pooled mean of 2 Plant crops and 1 Ratoon trials conducted with midlate entries in NWZ**



#### 4.9 ADVANCED VARIETAL TRIAL (MIDLATE) - I PLANT

|               |   |
|---------------|---|
| Centres (9)   | Faridkot, Kapurthala, Karnal, Kota, Lucknow, Muzaffarnagar, Pantnagar*, Shahjahanpur and Sriganaganagar |
| Entries (5)   | Co 16030, CoLk 16203, CoLk 16204, CoS 16232 and CoS 16233   |
| Standards (3) | CoS 767, CoPant 97222 and Co 05011  |
| Design        | RBD   |
| Replications  | 3   |
| Plot size     | Gross : 8 rows × 6 m × 0.90 m<br>Net : 6 rows × 5 m × 0.90 m  |
| Bud rate      | 12 buds / metre   |
| Planting time | February / March, 2020  |
| Crop Duration | 12 months   |

Note: \* trial at Pantnagar centre was abandoned due to poor plant population

**Results of the previous year:** In the IVT (Midlate) trial (2019-20), 7 entries and 3 standards were evaluated at nine centers. For CCS yield, Co 16030 and CoS 16232 ranked first and second among the test entries with CCS yield of 13.66 t/ha and 13.60 t/ha, respectively. CoPant 16223 (113.03 t/ha), CoS 16232 (108.63 t/ha) and Co 16030 (107.49 t/ha) recorded higher cane yield than the best standard Co 05011 (98.40 t/ha). For juice quality, CoS 16233 and Co 16030 were the superior test clones in the zone. The CCS% and sucrose % of CoS 16233 were 13.17% and 18.92%, respectively and that of Co 16030 were 12.64% and 18.28%, respectively as against the values of the best standard CoPant 97222 (CCS%: 12.73; sucrose %: 18.62). On the basis of yield, quality, red rot rating and field stand five entries namely, Co 16030, CoLk 16203, CoLk 16204, CoS 16232 and CoS 16233 were advanced to AVT I Plant trial.

**Results of the current years:** Two test entries viz., CoS 16233 (13.25 t/ha) and Co 16030 (13.23 t/ha) registered > 10% improvement over the best standard, Co 05011 (11.71 t/ha) for the CCS yield. For cane yield, three test entries viz., Co 16030 (104.21 t/ha), CoS 16232 (101.08 t/ha) and CoS 16233 (100.26 t/ha) recorded > 10% improvement over the best standard, CoPant 97222 (88.98 t/ha). CoPant 97222 was the best among the standards in the zone for CCS % (13.10) and Co 05011 was the best among the standards for sucrose % (18.86). None of the test entries recorded > 5% improvement over the best standards either for CCS% or for sucrose % although the entry CoS 16233 recorded numerically higher CCS% (13.50) and sucrose % (19.17) than the best standards. Further details are shown in in Tables 4.9.1 to 4.9.19.

#### Qualifying entry identified:

| Sl. No | Entries   | % improvement over the best standard |             |
|--------|-----------|--------------------------------------|-------------|
|        |           | Cane yield (t/ha)                    | Sucrose (%) |
| 1      | CoS 16233 | 12.68                                | 1.64        |

**Table 4.9.1. CCS (t/ha) at harvest**

| Sl No  | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Mean         | Rank |
|--|--------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|----------------|--------------|------|
| 1  | Co 16030     | 14.49        | 12.61        | 20.20        | 10.72        | 11.60        | 11.28          |            | 13.62         | 11.35          | <b>13.23</b> | 2    |
| 2  | CoLk 16203   | 12.03        | 10.21        | 11.78        | 9.29         | 12.08        | 9.69           |            | 12.83         | 13.03          | <b>11.37</b> |      |
| 3  | CoLk 16204   | 13.89        | 10.57        | 14.34        | 9.66         | 14.59        | 11.01          |            | 11.33         | 11.49          | <b>12.11</b> |      |
| 4  | CoS 16232    | 15.57        | 12.55        | 12.08        | 10.90        | 11.26        | 12.72          |            | 14.40         | 11.25          | <b>12.59</b> | 3    |
| 5  | CoS 16233    | 15.66        | 11.88        | 13.59        | 12.22        | 14.03        | 11.80          |            | 14.52         | 12.28          | <b>13.25</b> | 1    |
|  | Standards    |              |              |              |              |              |                |            |               |                |              |      |
| 1  | CoS 767      | 12.80        | 11.41        | 10.97        | 8.87         | 10.27        | 8.86           |            | 10.44         | 12.09          | <b>10.71</b> |      |
| 2  | CoPant 97222 | 14.23        | 8.68         | 14.37        | 9.19         | 12.05        | 9.54           |            | 11.03         | 12.24          | <b>11.42</b> |      |
| 3  | Co 05011     | 14.63        | 11.51        | 13.60        | 10.66        | 11.17        | 10.06          |            | 10.61         | 11.44          | <b>11.71</b> |      |
|  | <b>Mean</b>  | <b>13.92</b> | <b>11.18</b> | <b>13.87</b> | <b>10.19</b> | <b>12.13</b> | <b>10.62</b>   |            | <b>12.35</b>  | <b>11.90</b>   | <b>12.02</b> |      |
|  | SE (m)       | 0.57         | 0.36         | 0.58         | 0.67         | 0.80         | 0.18           |            | 0.32          | 0.52           |              |      |
|  | CD at 5%     | 1.69         | 1.08         | 1.78         | 1.64         | 1.71         | 0.38           |            | 0.97          | 1.55           |              |      |
|  | CV           | 7.08         | 5.50         | 7.25         | 11.41        | 8.07         | 5.57           |            | 4.50          | 6.15           |              |      |
| <b>Top three entries recorded &gt; 10% improvement over the best standard at each location</b> |              |              |              |              |              |              |                |            |               |                |              |      |
|  | Rank-1       |              |              | Co 16030     | CoS 16233    | CoLk 16204   | CoS 16232      |            | CoS 16233     | CoLk 16203     | CoS 16233    |      |
|  | Rank-2       |              |              |              |              | CoS 16233    | CoS 16233      |            | CoS 16232     |                | Co 16030     |      |
|  | Rank-3       |              |              |              |              |              | Co 16030       |            | Co 16030      |                |              |      |

**Number of locations where an entry recorded > 10% improvement over the best standard:** CoS 16233 (4), Co 16030 (3), CoS 16232 (2), CoLk 16203 (1) and CoLk 16204 (1).

**Performance of the entries across locations:** Among the standards, Co 05011 was the best standards in the zone for CCS yield (11.71 t/ha). Among the test entries, CoS 16233 (13.25 t/ha) and Co 16030 (13.23 t/ha) recorded > 10% improvement over the best standard for the CCS yield.

**Table 4.9.2. Cane yield (t/ha) at harvest**

| Sl No  | Entry        | Faridkot      | Kapurthala   | Karnal        | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Mean          | Rank |
|--|--------------|---------------|--------------|---------------|--------------|--------------|-----------------|-------------|----------------|-----------------|---------------|------|
| 1  | Co 16030     | 114.51        | 105.10       | 146.16        | 103.69       | 87.41        | 90.62           |             | 104.69         | 81.48           | <b>104.21</b> | 1    |
| 2  | CoLk 16203   | 93.83         | 83.35        | 92.02         | 83.19        | 85.85        | 82.34           |             | 99.01          | 91.36           | <b>88.87</b>  |      |
| 3  | CoLk 16204   | 106.48        | 85.73        | 113.76        | 85.93        | 101.44       | 90.74           |             | 88.89          | 96.30           | <b>96.16</b>  |      |
| 4  | CoS 16232    | 120.06        | 97.76        | 96.40         | 101.41       | 80.94        | 103.21          |             | 106.42         | 102.47          | <b>101.08</b> | 2    |
| 5  | CoS 16233    | 112.96        | 96.89        | 97.44         | 92.01        | 95.24        | 94.81           |             | 103.46         | 109.26          | <b>100.26</b> | 3    |
|  | Standards    |               |              |               |              |              |                 |             |                |                 |               |      |
| 1  | CoS 767      | 100.31        | 89.00        | 87.65         | 77.30        | 78.04        | 74.69           |             | 82.96          | 95.68           | <b>85.70</b>  |      |
| 2  | CoPant 97222 | 103.70        | 69.24        | 107.36        | 78.22        | 83.30        | 80.37           |             | 80.37          | 109.26          | <b>88.98</b>  |      |
| 3  | Co 05011     | 107.10        | 88.23        | 101.91        | 80.65        | 76.54        | 81.48           |             | 79.26          | 85.19           | <b>87.55</b>  |      |
|  | <b>Mean</b>  | <b>104.69</b> | <b>89.41</b> | <b>105.34</b> | <b>87.80</b> | <b>86.09</b> | <b>87.28</b>    |             | <b>93.13</b>   | <b>96.38</b>    | <b>93.77</b>  |      |
|  | SE (m)       | 4.08          | 3.09         | 4.61          | 5.38         | 5.06         | 1.58            |             | 1.81           | 2.81            |               |      |
|  | CD at 5%     | 12.13         | 9.39         | 14.14         | 13.15        | 10.84        | 3.38            |             | 5.50           | 8.42            |               |      |
|  | CV           | 6.75          | 5.99         | 7.59          | 10.60        | 7.19         | 5.97            |             | 3.37           | 10.06           |               |      |
| <b>Top three entries recorded &gt; 10% improvement over the best standard at each location</b> |              |               |              |               |              |              |                 |             |                |                 |               |      |
|  | Rank-1       | CoS 16232     | Co 16030     | Co 16030      | Co 16030     | CoLk 16204   | CoS 16232       |             | CoS 16232      |                 | Co 16030      |      |
|  | Rank-2       |               |              |               | CoS 16232    | CoS 16233    | CoS 16233       |             | Co 16030       |                 | CoS 16232     |      |
|  | Rank-3       |               |              |               | CoS 16233    |              | CoLk 16204      |             | CoS 16233      |                 | CoS 16233     |      |

**Number of locations where an entry recorded > 10% improvement over the best standard:** Co 16030 (4), CoS 16232 (4), CoS 16233 (4) and CoLk 16204 (2).

**Performance of the entries across locations:** CoPant 97222 was the best among the standards in the zone with an average cane yield of 88.98 t/ha. Three test entries viz., Co 16030 (104.21 t/ha), CoS 16232 (101.08 t/ha) and CoS 16233 (100.26 t/ha) recorded > 10% improvement over the best standard for the cane yield.



**Table 4.9.3. CCS (%) at harvest**

| Sl No   | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Mean         | Rank |
|---|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|-------------|----------------|-----------------|--------------|------|
| 1   | Co 16030     | 12.66        | 11.99        | 13.82        | 10.35        | 13.25        | 12.45           |             | 13.01          | 9.25            | <b>12.10</b> |      |
| 2   | CoLk 16203   | 12.82        | 12.27        | 12.81        | 11.13        | 14.07        | 11.77           |             | 12.96          | 11.91           | <b>12.47</b> |      |
| 3   | CoLk 16204   | 13.04        | 12.32        | 12.60        | 11.24        | 14.39        | 12.14           |             | 12.75          | 11.06           | <b>12.44</b> |      |
| 4   | CoS 16232    | 12.96        | 12.84        | 12.53        | 10.75        | 13.94        | 12.34           |             | 13.53          | 11.52           | <b>12.55</b> |      |
| 5   | CoS 16233    | 13.86        | 12.26        | 13.95        | 13.29        | 14.75        | 12.43           |             | 14.03          | 13.41           | <b>13.50</b> | 1    |
|   | Standards    |              |              |              |              |              |                 |             |                |                 |              |      |
| 1   | CoS 767      | 12.76        | 12.84        | 12.49        | 11.46        | 13.16        | 11.86           |             | 12.58          | 11.56           | <b>12.34</b> |      |
| 2   | CoPant 97222 | 13.73        | 12.55        | 13.39        | 11.74        | 14.46        | 11.86           |             | 13.72          | 13.37           | <b>13.10</b> | 2    |
| 3   | Co 05011     | 13.66        | 13.04        | 13.35        | 13.22        | 14.59        | 12.33           |             | 13.38          | 9.75            | <b>12.91</b> | 3    |
|   | <b>Mean</b>  | <b>13.30</b> | <b>12.51</b> | <b>13.12</b> | <b>11.65</b> | <b>14.08</b> | <b>12.15</b>    |             | <b>13.25</b>   | <b>11.48</b>    | <b>12.69</b> |      |
|   | SE (m)       | 0.13         | 0.13         | 0.13         | 0.20         | 0.39         | 0.29            |             | 0.22           | 0.13            |              |      |
|   | CD at 5%     | 0.40         | 0.41         | 0.41         | 0.50         | 0.84         | NS              |             | 0.65           | 0.40            |              |      |
|   | CV           | 1.74         | 1.88         | 1.77         | 3.05         | 3.40         | 2.89            |             | 2.82           | 2.27            |              |      |
| <b>Top three entries recorded &gt; 5% improvement over the best standard at each location</b> |              |              |              |              |              |              |                 |             |                |                 |              |      |
|   | Rank-1       |              |              |              |              |              |                 |             |                |                 |              |      |
|   | Rank-2       |              |              |              |              |              |                 |             |                |                 |              |      |
|   | Rank-3       |              |              |              |              |              |                 |             |                |                 |              |      |

**Number of locations where an entry recorded > 5% improvement over the best standards: None**

**Performance of the entries across locations:** Among the standards, CoPant 97222 recorded the highest CCS % in the zone (13.10). Only one test clone viz., CoS 16233 recorded numerically higher CCS% (13.50) than the best standard. However, the per cent improvement over CoPant 97222 for CCS % was lesser than 5%.

**Table 4.9.4. Sucrose (%) at harvest**

| Sl No   | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar | Shahjahanpur | Sriganganagar | Mean         | Rank |
|---|--------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|--------------|---------------|--------------|------|
| 1   | Co 16030     | 18.18        | 17.20        | 19.65        | 15.22        | 18.97        | 18.14          |            | 18.86        | 16.54         | <b>17.85</b> |      |
| 2   | CoLk 16203   | 18.33        | 17.64        | 18.36        | 16.29        | 20.15        | 17.17          |            | 18.82        | 18.69         | <b>18.18</b> |      |
| 3   | CoLk 16204   | 18.58        | 17.64        | 17.83        | 16.42        | 20.55        | 17.67          |            | 18.52        | 16.67         | <b>17.99</b> |      |
| 4   | CoS 16232    | 18.50        | 18.49        | 18.04        | 15.77        | 19.88        | 17.83          |            | 19.57        | 16.53         | <b>18.08</b> |      |
| 5   | CoS 16233    | 19.72        | 17.42        | 19.80        | 19.21        | 21.01        | 18.02          |            | 20.21        | 17.93         | <b>19.17</b> | 1    |
|   | Standards    |              |              |              |              |              |                |            |              |               |              |      |
| 1   | CoS 767      | 18.34        | 18.16        | 17.87        | 16.73        | 18.87        | 17.21          |            | 18.30        | 17.40         | <b>17.86</b> |      |
| 2   | CoPant 97222 | 19.63        | 18.26        | 18.81        | 17.11        | 20.59        | 17.23          |            | 19.82        | 17.94         | <b>18.67</b> | 3    |
| 3   | Co 05011     | 19.38        | 18.52        | 18.97        | 19.10        | 20.87        | 17.89          |            | 19.34        | 16.78         | <b>18.86</b> | 2    |
|   | <b>Mean</b>  | <b>18.96</b> | <b>17.92</b> | <b>18.67</b> | <b>16.98</b> | <b>20.11</b> | <b>17.65</b>   |            | <b>19.18</b> | <b>17.31</b>  | <b>18.35</b> |      |
|   | SE (m)       | 0.18         | 0.54         | 0.19         | 0.28         | 0.53         | 0.39           |            | 0.28         | 0.10          |              |      |
|   | CD at 5%     | 0.54         | 0.52         | 0.57         | 0.68         | 1.14         | NS             |            | 0.86         | 0.31          |              |      |
|   | CV           | 1.66         | 1.67         | 1.71         | 2.83         | 3.24         | 2.72           |            | 2.57         | 1.13          |              |      |
| <b>Top three entries recorded &gt; 5% improvement over the best standard at each location</b> |              |              |              |              |              |              |                |            |              |               |              |      |
|   | Rank-1       |              |              |              |              |              |                |            |              |               |              |      |
|   | Rank-2       |              |              |              |              |              |                |            |              |               |              |      |
|   | Rank-3       |              |              |              |              |              |                |            |              |               |              |      |

**Number of locations where an entry showing more than five percent improvement over the best standards: None**

**Performance of the entries across locations:** Co 05011 was the best among the standards for sucrose % with zonal mean of 18.86%. None of the test entries recorded > 5% improvement over the best standard for sucrose % although the clone CoS 16233 recorded numerically higher sucrose % (19.17) than Co 05011.

**Table 4.9.5. Brix (%) at harvest**

| SI No | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Mean         |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|-------------|----------------|-----------------|--------------|
| 1     | Co 16030     | 20.27        | 19.13        | 21.43        | 17.83        | 21.02        | 20.85           |             | 21.45          | 19.01           | <b>20.12</b> |
| 2     | CoLk 16203   | 20.23        | 19.73        | 20.40        | 18.87        | 22.31        | 19.79           |             | 21.47          | 20.78           | <b>20.45</b> |
| 3     | CoLk 16204   | 20.37        | 19.53        | 19.25        | 19.00        | 22.66        | 20.25           |             | 21.17          | 19.01           | <b>20.15</b> |
| 4     | CoS 16232    | 20.37        | 20.73        | 20.23        | 18.37        | 21.85        | 20.15           |             | 22.14          | 19.34           | <b>20.40</b> |
| 5     | CoS 16233    | 21.57        | 18.97        | 21.53        | 21.70        | 23.04        | 20.49           |             | 22.68          | 20.71           | <b>21.34</b> |
|       | Standards    |              |              |              |              |              |                 |             |                |                 |              |
| 1     | CoS 767      | 20.47        | 19.60        | 19.78        | 19.30        | 20.98        | 19.62           |             | 20.95          | 19.51           | <b>20.03</b> |
| 2     | CoPant 97222 | 21.67        | 20.93        | 19.99        | 19.67        | 22.55        | 19.69           |             | 22.37          | 20.88           | <b>20.97</b> |
| 3     | Co 05011     | 21.03        | 20.17        | 20.69        | 21.60        | 23.07        | 20.39           |             | 21.87          | 19.54           | <b>21.05</b> |
|       | <b>Mean</b>  | <b>20.82</b> | <b>19.85</b> | <b>20.41</b> | <b>19.54</b> | <b>22.18</b> | <b>20.15</b>    |             | <b>21.77</b>   | <b>19.85</b>    | <b>20.57</b> |
|       | SE (m)       | 0.22         | 0.31         | 0.26         | 0.27         | 0.55         | 0.41            |             | 0.26           | 0.27            |              |
|       | CD at 5%     | 0.66         | 0.93         | 0.78         | 0.66         | 1.18         | NS              |             | 0.79           | 0.82            |              |
|       | CV           | 1.86         | 2.67         | 2.17         | 2.38         | 3.05         | 2.49            |             | 2.07           | 2.30            |              |

**Table 4.9.6. Purity (%) at harvest**

| SI No | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Mean         |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|----------------|--------------|
| 1     | Co 16030     | 89.68        | 89.91        | 91.70        | 85.34        | 90.22        | 86.99          |            | 87.92         | 87.01          | <b>88.60</b> |
| 2     | CoLk 16203   | 90.58        | 89.41        | 90.00        | 86.29        | 90.29        | 86.76          |            | 87.62         | 89.94          | <b>88.86</b> |
| 3     | CoLk 16204   | 91.23        | 90.29        | 92.64        | 86.42        | 90.71        | 87.24          |            | 87.48         | 87.69          | <b>89.21</b> |
| 4     | CoS 16232    | 90.83        | 89.21        | 89.21        | 85.86        | 90.98        | 88.48          |            | 88.37         | 85.47          | <b>88.55</b> |
| 5     | CoS 16233    | 91.45        | 91.86        | 92.00        | 88.51        | 91.24        | 87.96          |            | 89.11         | 86.58          | <b>89.84</b> |
|       | Standards    |              |              |              |              |              |                |            |               |                |              |
| 1     | CoS 767      | 89.59        | 92.67        | 90.38        | 86.68        | 89.95        | 87.70          |            | 87.33         | 89.19          | <b>89.19</b> |
| 2     | CoPant 97222 | 90.62        | 87.31        | 94.12        | 87.00        | 91.32        | 87.53          |            | 88.57         | 85.92          | <b>89.05</b> |
| 3     | Co 05011     | 92.14        | 91.84        | 91.69        | 88.44        | 90.47        | 87.76          |            | 88.39         | 85.88          | <b>89.58</b> |
|       | <b>Mean</b>  | <b>91.07</b> | <b>90.31</b> | <b>91.47</b> | <b>86.82</b> | <b>90.65</b> | <b>87.55</b>   |            | <b>88.10</b>  | <b>87.21</b>   | <b>89.15</b> |
|       | SE (m)       | 0.50         | 0.98         | 0.64         | 0.23         | 0.64         | 0.51           |            | 0.28          | 1.35           |              |
|       | CD at 5%     | 1.48         | 2.98         | 1.97         | 0.57         | 1.37         | NS             |            | 0.85          | 4.04           |              |
|       | CV           | 0.95         | 1.89         | 1.22         | 0.47         | 0.86         | 0.72           |            | 0.55          | 2.67           |              |

**Table 4.9.7. Juice Extraction (%) at harvest**

| Sl No | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Mean         |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|----------------|--------------|
| 1     | Co 16030     | 55.97        | 57.68        | 60.01        | 48.62        | 57.93        | 46.98          |            | 56.43         | 46.94          | <b>53.82</b> |
| 2     | CoLk 16203   | 47.44        | 54.25        | 52.62        | 47.53        | 52.98        | 36.24          |            | 54.78         | 49.46          | <b>49.41</b> |
| 3     | CoLk 16204   | 52.60        | 54.09        | 54.54        | 45.34        | 51.76        | 42.38          |            | 53.68         | 49.90          | <b>50.54</b> |
| 4     | CoS 16232    | 57.32        | 53.44        | 54.61        | 47.74        | 53.13        | 52.36          |            | 56.88         | 51.99          | <b>53.43</b> |
| 5     | CoS 16233    | 52.50        | 58.14        | 54.18        | 45.54        | 53.25        | 47.87          |            | 55.62         | 47.55          | <b>51.83</b> |
|       | Standards    |              |              |              |              |              |                |            |               |                |              |
| 1     | CoS 767      | 53.06        | 56.32        | 54.21        | 48.84        | 48.84        | 40.06          |            | 57.01         | 48.50          | <b>50.85</b> |
| 2     | CoPant 97222 | 54.43        | 55.88        | 53.71        | 46.20        | 51.47        | 54.68          |            | 57.20         | 48.72          | <b>52.79</b> |
| 3     | Co 05011     | 56.74        | 54.82        | 55.50        | 45.66        | 53.48        | 45.11          |            | 54.00         | 50.92          | <b>52.03</b> |
|       | <b>Mean</b>  | <b>53.63</b> | <b>55.58</b> | <b>54.92</b> | <b>46.93</b> | <b>52.86</b> | <b>45.71</b>   |            | <b>55.70</b>  | <b>49.25</b>   | <b>51.82</b> |
|       | SE (m)       | 0.78         | 0.92         | 0.53         | 0.66         | 1.72         | -              |            | 0.73          | 0.31           |              |
|       | CD at 5%     | 2.32         | 2.79         | 1.64         | 1.60         | 3.70         | -              |            | 2.20          | 0.95           |              |
|       | CV           | 2.52         | 2.87         | 1.69         | 2.42         | 3.99         | -              |            | 2.25          | 4.10           |              |

**Table 4.9.8. Pol% in cane and Fibre (%) at harvest**

| Sl No | Entry        | Pol% in cane |              |              |                 |                | Fibre (%) in cane |              |              |              |                 |                |              |
|-------|--------------|--------------|--------------|--------------|-----------------|----------------|-------------------|--------------|--------------|--------------|-----------------|----------------|--------------|
|       |              | Kapur -thala | Karnal       | Lucknow      | Muzaffar -nagar | Shahja -hanpur | Mean              | Kapur -thala | Karnal       | Lucknow      | Muzaffar -nagar | Shahja -hanpur | Mean         |
| 1     | Co 16030     | 14.21        | 14.97        | 14.45        | 13.69           | 14.15          | <b>14.29</b>      | 13.78        | 13.80        | 13.80        | 13.67           | 14.97          | <b>14.00</b> |
| 2     | CoLk 16203   | 13.54        | 13.66        | 15.41        | 13.47           | 14.08          | <b>14.03</b>      | 14.58        | 15.62        | 13.52        | 13.92           | 15.17          | <b>14.56</b> |
| 3     | CoLk 16204   | 13.99        | 13.57        | 15.72        | 13.28           | 13.86          | <b>14.08</b>      | 14.36        | 13.88        | 13.49        | 13.77           | 15.16          | <b>14.13</b> |
| 4     | CoS 16232    | 14.28        | 13.80        | 15.15        | 14.01           | 14.73          | <b>14.39</b>      | 13.99        | 13.52        | 13.78        | 13.70           | 14.70          | <b>13.94</b> |
| 5     | CoS 16233    | 13.92        | 15.08        | 15.91        | 14.00           | 15.14          | <b>14.81</b>      | 13.39        | 13.87        | 14.26        | 13.28           | 15.11          | <b>13.98</b> |
|       | Standards    |              |              |              |                 |                |                   |              |              |              |                 |                |              |
| 1     | CoS 767      | 14.07        | 13.61        | 14.27        | 13.26           | 13.69          | <b>13.78</b>      | 14.27        | 13.84        | 14.37        | 13.90           | 15.20          | <b>14.32</b> |
| 2     | CoPant 97222 | 14.12        | 14.70        | 15.75        | 13.33           | 14.85          | <b>14.55</b>      | 14.01        | 11.84        | 13.51        | 14.11           | 15.08          | <b>13.71</b> |
| 3     | Co 05011     | 14.31        | 14.69        | 15.86        | 13.96           | 14.53          | <b>14.67</b>      | 13.81        | 12.55        | 13.99        | 13.89           | 14.84          | <b>13.82</b> |
|       | <b>Mean</b>  | <b>14.05</b> | <b>14.26</b> | <b>15.32</b> | <b>13.62</b>    | <b>14.38</b>   | <b>14.33</b>      | <b>14.02</b> | <b>13.61</b> | <b>13.84</b> | <b>13.78</b>    | <b>15.03</b>   | <b>14.06</b> |
|       | SE (m)       | 0.22         | 0.15         | 0.37         | -               | 0.21           |                   | 0.31         | 0.19         | 0.58         | -               | 0.17           |              |
|       | CD at 5%     | NS           | 0.47         | 0.79         | -               | 0.63           |                   | NS           | 0.55         | NS           | -               | NS             |              |
|       | CV           | 2.72         | 1.85         | 2.95         | -               | 2.52           |                   | 3.81         | 2.26         | 5.10         | -               | 1.92           |              |

**Table 4.9.9. Number of millable canes ( '000/ha) at harvest**

| Sl No | Entry        | Faridkot      | Kapurthala   | Karnal        | Kota         | Lucknow       | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Mean          |
|-------|--------------|---------------|--------------|---------------|--------------|---------------|-----------------|-------------|----------------|-----------------|---------------|
| 1     | Co 16030     | 102.47        | 95.15        | 102.78        | 91.48        | 83.56         | 84.32           |             | 95.93          | 96.94           | <b>94.08</b>  |
| 2     | CoLk 16203   | 105.09        | 87.05        | 106.10        | 87.78        | 109.10        | 109.75          |             | 105.68         | 111.51          | <b>102.76</b> |
| 3     | CoLk 16204   | 111.57        | 93.73        | 122.61        | 87.28        | 115.28        | 106.42          |             | 101.98         | 120.74          | <b>107.45</b> |
| 4     | CoS 16232    | 115.12        | 93.37        | 106.71        | 92.47        | 111.50        | 97.41           |             | 98.77          | 102.98          | <b>102.29</b> |
| 5     | CoS 16233    | 107.10        | 102.70       | 96.60         | 89.63        | 114.12        | 102.84          |             | 108.27         | 123.35          | <b>105.58</b> |
|       | Standards    |               |              |               |              |               |                 |             |                |                 |               |
| 1     | CoS 767      | 107.25        | 94.83        | 92.21         | 81.48        | 106.79        | 104.44          |             | 101.60         | 112.09          | <b>100.09</b> |
| 2     | CoPant 97222 | 89.81         | 80.42        | 103.55        | 83.09        | 102.70        | 95.43           |             | 93.09          | 124.78          | <b>96.61</b>  |
| 3     | Co 05011     | 105.25        | 85.17        | 102.93        | 84.81        | 102.55        | 98.39           |             | 92.72          | 101.16          | <b>96.62</b>  |
|       | <b>Mean</b>  | <b>102.48</b> | <b>91.55</b> | <b>104.19</b> | <b>87.25</b> | <b>105.70</b> | <b>99.88</b>    |             | <b>99.75</b>   | <b>111.69</b>   | <b>100.31</b> |
|       | SE (m)       | 3.68          | 2.44         | 2.10          | 4.23         | 5.44          | 2.49            |             | 3.40           | 3.55            |               |
|       | CD at 5%     | 10.93         | 7.40         | 6.40          | 10.34        | 11.67         | 5.34            |             | 10.31          | 10.64           |               |
|       | CV           | 6.22          | 4.62         | 3.50          | 8.39         | 6.31          | 8.24            |             | 5.90           | 8.81            |               |

**Table 4.9.10 Stalk length (cm) at harvest**

| Sl No | Entry        | Faridkot      | Kapurthala    | Karnal        | Kota          | Lucknow       | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Mean          |
|-------|--------------|---------------|---------------|---------------|---------------|---------------|-----------------|-------------|----------------|-----------------|---------------|
| 1     | Co 16030     | 211.89        | 242.60        | 250.00        | 258.00        | 186.40        | 206.00          |             | 236.20         | 222.00          | <b>226.64</b> |
| 2     | CoLk 16203   | 207.33        | 179.50        | 223.00        | 193.00        | 180.67        | 172.00          |             | 228.00         | 232.00          | <b>201.94</b> |
| 3     | CoLk 16204   | 215.44        | 213.00        | 237.00        | 192.00        | 189.00        | 165.00          |             | 222.83         | 213.00          | <b>205.91</b> |
| 4     | CoS 16232    | 249.55        | 226.00        | 240.00        | 247.00        | 162.00        | 211.00          |             | 261.00         | 240.00          | <b>229.57</b> |
| 5     | CoS 16233    | 249.55        | 233.20        | 243.00        | 192.00        | 182.00        | 219.00          |             | 234.63         | 248.00          | <b>225.17</b> |
|       | Standards    |               |               |               |               |               |                 |             |                |                 |               |
| 1     | CoS 767      | 223.89        | 217.40        | 237.00        | 213.00        | 176.27        | 190.00          |             | 218.13         | 245.00          | <b>215.09</b> |
| 2     | CoPant 97222 | 224.66        | 183.30        | 240.00        | 175.00        | 169.87        | 181.00          |             | 216.77         | 239.00          | <b>203.70</b> |
| 3     | Co 05011     | 218.00        | 206.30        | 225.00        | 225.00        | 159.67        | 169.00          |             | 200.37         | 221.00          | <b>203.04</b> |
|       | <b>Mean</b>  | <b>223.92</b> | <b>212.60</b> | <b>237.00</b> | <b>212.00</b> | <b>175.73</b> | <b>189.00</b>   |             | <b>227.24</b>  | <b>232.00</b>   | <b>213.69</b> |
|       | SE (m)       | 6.27          | 5.96          | 5.00          | 12.00         | 6.62          | 12.00           |             | 4.75           | 15.00           |               |
|       | CD at 5%     | 18.63         | 18.06         | 15.00         | 29.00         | 14.20         | 26.00           |             | 14.42          | 46.00           |               |
|       | CV           | 4.85          | 4.85          | 3.47          | 9.69          | 4.61          | 7.93            |             | 3.62           | 10.90           |               |



**Table 4.9.11 Cane diameter (cm) at harvest**

| Sl No | Entry        | Faridkot    | Kapurthala  | Karnal      | Kota        | Lucknow     | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Mean        |
|-------|--------------|-------------|-------------|-------------|-------------|-------------|----------------|------------|---------------|----------------|-------------|
| 1     | Co 16030     | 2.74        | 2.75        | 2.66        | 3.10        | 2.96        | 2.84           |            | 2.36          | 2.31           | <b>2.71</b> |
| 2     | CoLk 16203   | 2.82        | 2.45        | 2.17        | 2.33        | 2.31        | 2.62           |            | 2.17          | 2.48           | <b>2.42</b> |
| 3     | CoLk 16204   | 2.57        | 2.31        | 2.08        | 2.17        | 2.71        | 2.38           |            | 2.09          | 2.40           | <b>2.34</b> |
| 4     | CoS 16232    | 2.68        | 2.36        | 2.24        | 2.47        | 2.21        | 2.42           |            | 2.29          | 2.53           | <b>2.40</b> |
| 5     | CoS 16233    | 2.61        | 2.38        | 2.21        | 2.23        | 2.23        | 2.32           |            | 2.28          | 2.29           | <b>2.32</b> |
|       | Standards    |             |             |             |             |             |                |            |               |                |             |
| 1     | CoS 767      | 2.63        | 2.31        | 2.23        | 2.30        | 2.19        | 2.24           |            | 2.16          | 2.51           | <b>2.32</b> |
| 2     | CoPant 97222 | 2.90        | 2.41        | 2.44        | 2.73        | 2.32        | 2.78           |            | 2.29          | 2.37           | <b>2.53</b> |
| 3     | Co 05011     | 2.80        | 2.50        | 2.50        | 2.20        | 2.34        | 2.54           |            | 2.36          | 2.43           | <b>2.46</b> |
|       | <b>Mean</b>  | <b>2.75</b> | <b>2.43</b> | <b>2.32</b> | <b>2.44</b> | <b>2.41</b> | <b>2.52</b>    |            | <b>2.25</b>   | <b>2.41</b>    | <b>2.44</b> |
|       | SE (m)       | 0.06        | 0.08        | 0.06        | 0.10        | 0.06        | 0.17           |            | 0.05          | 0.08           |             |
|       | CD at 5%     | 0.19        | 0.24        | 0.19        | 0.24        | 0.12        | 0.36           |            | 0.14          | 0.25           |             |
|       | CV           | 4.02        | 5.71        | 4.67        | 7.01        | 2.86        | 8.20           |            | 3.50          | 1.41           |             |

**Table 4.9.12 Single cane weight (kg) at harvest**

| Sl No | Entry        | Faridkot    | Kapurthala  | Karnal      | Kota        | Lucknow     | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Mean        |
|-------|--------------|-------------|-------------|-------------|-------------|-------------|-----------------|-------------|----------------|-----------------|-------------|
| 1     | Co 16030     | 1.21        | 1.19        | 1.42        | 1.13        | 1.05        | 1.15            |             | 1.09           | 1.04            | <b>1.16</b> |
| 2     | CoLk 16203   | 1.07        | 0.92        | 0.87        | 0.95        | 0.79        | 0.78            |             | 0.94           | 0.98            | <b>0.91</b> |
| 3     | CoLk 16204   | 1.09        | 0.92        | 0.93        | 0.98        | 0.88        | 0.92            |             | 0.88           | 0.94            | <b>0.94</b> |
| 4     | CoS 16232    | 1.18        | 1.05        | 0.90        | 1.10        | 0.73        | 1.07            |             | 1.08           | 1.21            | <b>1.04</b> |
| 5     | CoS 16233    | 1.17        | 0.94        | 1.01        | 1.03        | 0.84        | 0.95            |             | 0.96           | 1.04            | <b>0.99</b> |
|       | Standards    |             |             |             |             |             |                 |             |                |                 |             |
| 1     | CoS 767      | 1.03        | 0.94        | 0.94        | 0.95        | 0.73        | 0.77            |             | 0.82           | 1.02            | <b>0.90</b> |
| 2     | CoPant 97222 | 1.25        | 0.83        | 1.04        | 0.94        | 0.81        | 0.95            |             | 0.87           | 1.03            | <b>0.96</b> |
| 3     | Co 05011     | 1.16        | 1.04        | 0.99        | 0.96        | 0.75        | 0.87            |             | 0.86           | 1.03            | <b>0.96</b> |
|       | <b>Mean</b>  | <b>1.16</b> | <b>0.98</b> | <b>1.01</b> | <b>1.01</b> | <b>0.82</b> | <b>0.93</b>     |             | <b>0.94</b>    | <b>1.04</b>     | <b>0.99</b> |
|       | SE (m)       | 0.04        | 0.04        | 0.04        | 0.06        | 0.03        | 0.04            |             | 0.04           | 0.03            |             |
|       | CD at 5%     | 0.11        | 0.11        | 0.12        | 0.15        | 0.07        | 0.09            |             | 0.12           | 0.08            |             |
|       | CV           | 5.52        | 6.66        | 6.50        | 10.47       | 4.59        | 5.43            |             | 7.11           | 3.36            |             |

**Table 4.9.13 CCS (%) at 10<sup>th</sup> month**

| Sl No | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Mean         |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|----------------|--------------|
| 1     | Co 16030     | 10.25        | 10.99        | 11.87        | 9.09         | 12.22        | 11.14          |            | 11.25         | 9.46           | <b>10.78</b> |
| 2     | CoLk 16203   | 10.83        | 10.76        | 11.77        | 9.88         | 12.08        | 11.23          |            | 11.35         | 10.26          | <b>11.02</b> |
| 3     | CoLk 16204   | 10.41        | 10.85        | 10.62        | 9.98         | 12.84        | 11.43          |            | 10.61         | 9.08           | <b>10.73</b> |
| 4     | CoS 16232    | 10.57        | 11.63        | 11.12        | 9.50         | 12.41        | 11.37          |            | 11.51         | 9.10           | <b>10.90</b> |
| 5     | CoS 16233    | 11.31        | 11.43        | 12.13        | 12.04        | 12.95        | 11.37          |            | 11.92         | 9.84           | <b>11.62</b> |
|       | Standards    |              |              |              |              |              |                |            |               |                |              |
| 1     | CoS 767      | 11.04        | 11.35        | 11.80        | 10.21        | 11.73        | 11.49          |            | 11.07         | 9.71           | <b>11.05</b> |
| 2     | CoPant 97222 | 11.30        | 11.25        | 11.90        | 10.49        | 12.40        | 11.58          |            | 11.71         | 9.45           | <b>11.26</b> |
| 3     | Co 05011     | 10.80        | 11.55        | 11.91        | 11.96        | 12.21        | 11.42          |            | 11.47         | 8.92           | <b>11.28</b> |
|       | <b>Mean</b>  | <b>10.97</b> | <b>11.23</b> | <b>11.64</b> | <b>10.39</b> | <b>12.35</b> | <b>11.38</b>   |            | <b>11.36</b>  | <b>9.48</b>    | <b>11.10</b> |
|       | SE (m)       | 0.18         | 0.57         | 0.10         | 0.20         | 0.40         | 0.33           |            | 0.23          | 0.37           |              |
|       | CD at 5%     | 0.55         | 0.54         | 0.32         | 0.50         | NS           | NS             |            | 0.71          | 1.12           |              |
|       | CV           | 2.92         | 2.77         | 1.53         | 3.42         | 3.96         | 3.57           |            | 3.55          | 3.52           |              |

**Table 4.9.14 Sucrose (%) at 10<sup>th</sup> month**

| Sl No | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar | Shahja-nagar | Sriganga-nagar | Mean         |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|--------------|----------------|--------------|
| 1     | Co 16030     | 15.05        | 15.66        | 17.07        | 13.52        | 17.58        | 16.26          |            | 16.51        | 14.15          | <b>15.73</b> |
| 2     | CoLk 16203   | 15.58        | 15.57        | 16.97        | 14.58        | 17.44        | 16.40          |            | 16.62        | 14.92          | <b>16.01</b> |
| 3     | CoLk 16204   | 15.09        | 15.72        | 15.48        | 14.72        | 18.44        | 16.69          |            | 15.66        | 13.71          | <b>15.69</b> |
| 4     | CoS 16232    | 15.21        | 16.44        | 16.23        | 14.07        | 17.85        | 16.59          |            | 16.84        | 13.58          | <b>15.85</b> |
| 5     | CoS 16233    | 16.23        | 16.50        | 17.43        | 17.51        | 18.57        | 16.65          |            | 17.40        | 14.58          | <b>16.86</b> |
|       | Standards    |              |              |              |              |              |                |            |              |                |              |
| 1     | CoS 767      | 15.93        | 16.34        | 16.99        | 15.03        | 16.93        | 16.83          |            | 16.28        | 14.14          | <b>16.06</b> |
| 2     | CoPant 97222 | 16.22        | 16.12        | 17.06        | 15.41        | 17.84        | 16.94          |            | 17.12        | 14.17          | <b>16.36</b> |
| 3     | Co 05011     | 15.53        | 16.57        | 17.09        | 17.40        | 17.59        | 16.73          |            | 16.78        | 13.32          | <b>16.38</b> |
|       | <b>Mean</b>  | <b>15.81</b> | <b>16.12</b> | <b>16.79</b> | <b>15.28</b> | <b>17.78</b> | <b>16.64</b>   |            | <b>16.65</b> | <b>14.07</b>   | <b>16.14</b> |
|       | SE (m)       | 0.25         | 0.17         | 0.16         | 0.28         | 0.50         | 0.45           |            | 0.31         | 0.32           |              |
|       | CD at 5%     | 0.75         | 0.55         | 0.50         | 0.68         | ns           | NS             |            | 0.94         | 0.97           |              |
|       | CV           | 2.76         | 1.94         | 1.67         | 3.14         | 3.42         | 3.35           |            | 3.23         | 3.94           |              |

**Table 4.9.15 Brix (%) at 10<sup>th</sup> month**

| Sl No | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar | Shahja-hanpur | Sriganga-nagar | Mean         |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|---------------|----------------|--------------|
| 1     | Co 16030     | 17.57        | 17.17        | 19.09        | 16.18        | 19.70        | 18.76          |            | 19.24         | 17.14          | <b>18.11</b> |
| 2     | CoLk 16203   | 17.43        | 17.63        | 19.09        | 17.22        | 19.67        | 18.93          |            | 19.32         | 17.09          | <b>18.30</b> |
| 3     | CoLk 16204   | 17.17        | 17.87        | 17.81        | 17.35        | 20.56        | 19.23          |            | 18.48         | 16.90          | <b>18.17</b> |
| 4     | CoS 16232    | 17.03        | 17.70        | 18.74        | 16.72        | 19.95        | 19.46          |            | 19.55         | 16.36          | <b>18.19</b> |
| 5     | CoS 16233    | 18.07        | 18.60        | 19.47        | 20.05        | 20.65        | 19.33          |            | 20.10         | 17.33          | <b>19.20</b> |
|       | Standards    |              |              |              |              |              |                |            |               |                |              |
| 1     | CoS 767      | 17.93        | 18.33        | 19.06        | 17.65        | 19.07        | 19.56          |            | 19.06         | 16.25          | <b>18.36</b> |
| 2     | CoPant 97222 | 18.10        | 17.90        | 18.97        | 18.02        | 19.97        | 19.63          |            | 19.82         | 17.25          | <b>18.71</b> |
| 3     | Co 05011     | 17.37        | 18.47        | 19.03        | 19.95        | 19.74        | 19.43          |            | 19.46         | 16.08          | <b>18.69</b> |
|       | <b>Mean</b>  | <b>17.78</b> | <b>17.96</b> | <b>18.91</b> | <b>17.89</b> | <b>19.91</b> | <b>19.29</b>   |            | <b>19.38</b>  | <b>16.80</b>   | <b>18.49</b> |
|       | SE (m)       | 0.26         | 0.22         | 0.24         | 0.27         | 0.39         | 0.49           |            | 0.29          | 0.43           |              |
|       | CD at 5%     | 0.76         | 0.67         | 0.73         | 0.66         | 0.85         | NS             |            | 0.88          | 1.30           |              |
|       | CV           | 2.51         | 2.14         | 2.19         | 2.60         | 2.43         | 3.10           |            | 2.58          | 3.96           |              |

**Table 4.9.16 Purity (%) at 10<sup>th</sup> month**

| Sl No | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Mean         |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|-------------|----------------|-----------------|--------------|
| 1     | Co 16030     | 85.64        | 91.25        | 89.43        | 83.53        | 89.26        | 86.68           |             | 85.77          | 82.56           | <b>86.76</b> |
| 2     | CoLk 16203   | 89.34        | 88.29        | 88.91        | 84.68        | 88.64        | 86.62           |             | 86.04          | 87.30           | <b>87.48</b> |
| 3     | CoLk 16204   | 87.88        | 88.11        | 86.91        | 84.83        | 89.67        | 86.79           |             | 84.73          | 81.12           | <b>86.26</b> |
| 4     | CoS 16232    | 89.27        | 92.91        | 86.63        | 84.16        | 89.45        | 86.73           |             | 86.15          | 83.01           | <b>87.29</b> |
| 5     | CoS 16233    | 89.83        | 88.72        | 89.50        | 87.31        | 89.98        | 86.13           |             | 86.58          | 84.13           | <b>87.77</b> |
|       | Standards    |              |              |              |              |              |                 |             |                |                 |              |
| 1     | CoS 767      | 88.82        | 89.16        | 89.16        | 85.15        | 88.77        | 86.04           |             | 85.41          | 87.02           | <b>87.44</b> |
| 2     | CoPant 97222 | 89.63        | 90.05        | 89.98        | 85.52        | 89.31        | 86.33           |             | 86.37          | 82.15           | <b>87.42</b> |
| 3     | Co 05011     | 89.45        | 89.75        | 89.82        | 87.23        | 89.07        | 86.09           |             | 86.24          | 82.84           | <b>87.56</b> |
|       | <b>Mean</b>  | <b>88.89</b> | <b>89.78</b> | <b>88.79</b> | <b>85.30</b> | <b>89.27</b> | <b>86.43</b>    |             | <b>85.91</b>   | <b>83.77</b>    | <b>87.27</b> |
|       | SE (m)       | 0.32         | 1.32         | 0.45         | 0.28         | 1.02         | 0.63            |             | 0.35           | 1.21            |              |
|       | CD at 5%     | 0.95         | NS           | 1.38         | 0.68         | NS           | NS              |             | 1.06           | 3.63            |              |
|       | CV           | 0.62         | 2.34         | 0.88         | 0.57         | 1.39         | 0.89            |             | 0.71           | 5.16            |              |

**Table 4.9.17 Number of shoots (‘000/ha) at 240 DAP**

| Sl No | Entry        | Faridkot      | Kapurthala   | Karnal        | Kota         | Lucknow       | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Mean          |
|-------|--------------|---------------|--------------|---------------|--------------|---------------|-----------------|-------------|----------------|-----------------|---------------|
| 1     | Co 16030     | 115.59        | 100.02       | 102.78        | 93.95        | 86.57         |                 |             |                |                 | <b>99.78</b>  |
| 2     | CoLk 16203   | 112.96        | 92.70        | 106.10        | 91.11        | 112.89        |                 |             |                |                 | <b>103.15</b> |
| 3     | CoLk 16204   | 123.30        | 101.04       | 122.61        | 93.33        | 118.60        |                 |             |                |                 | <b>111.78</b> |
| 4     | CoS 16232    | 122.69        | 100.53       | 106.71        | 95.56        | 115.74        |                 |             |                |                 | <b>108.25</b> |
| 5     | CoS 16233    | 116.36        | 109.26       | 96.60         | 93.46        | 117.98        |                 |             |                |                 | <b>106.73</b> |
|       | Standards    |               |              |               |              |               |                 |             |                |                 |               |
| 1     | CoS 767      | 117.90        | 100.77       | 92.21         | 84.57        | 110.73        |                 |             |                |                 | <b>101.24</b> |
| 2     | CoPant 97222 | 105.71        | 86.34        | 103.55        | 86.67        | 107.87        |                 |             |                |                 | <b>98.03</b>  |
| 3     | Co 05011     | 116.36        | 87.78        | 102.93        | 88.02        | 106.71        |                 |             |                |                 | <b>100.36</b> |
|       | <b>Mean</b>  | <b>112.79</b> | <b>97.30</b> | <b>104.19</b> | <b>90.83</b> | <b>109.64</b> |                 |             |                |                 | <b>102.95</b> |
|       | SE (m)       | 3.72          | 2.25         | 2.10          | 4.25         | 4.58          |                 |             |                |                 |               |
|       | CD at 5%     | 11.07         | 6.82         | 6.40          | 10.41        | 9.83          |                 |             |                |                 |               |
|       | CV           | 5.72          | 4.01         | 3.50          | 8.11         | 5.12          |                 |             |                |                 |               |

**Table 4.9.18 Number of tillers (‘000/ha) at 120 DAP**

| Sl No | Entry        | Faridkot      | Kapurthala    | Karnal        | Kota          | Lucknow       | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Mean          |
|-------|--------------|---------------|---------------|---------------|---------------|---------------|-----------------|-------------|----------------|-----------------|---------------|
| 1     | Co 16030     | 130.86        | 111.65        | 140.59        | 103.58        | 89.66         | 175.18          |             | 180.49         | 117.00          | <b>131.13</b> |
| 2     | CoLk 16203   | 132.72        | 100.00        | 134.10        | 98.64         | 116.67        | 194.56          |             | 203.58         | 134.60          | <b>139.36</b> |
| 3     | CoLk 16204   | 152.78        | 112.30        | 149.69        | 103.33        | 119.91        | 183.33          |             | 194.94         | 145.73          | <b>145.25</b> |
| 4     | CoS 16232    | 132.87        | 110.51        | 143.21        | 105.43        | 118.52        | 204.19          |             | 195.06         | 124.29          | <b>141.76</b> |
| 5     | CoS 16233    | 154.01        | 115.68        | 146.76        | 108.52        | 122.61        | 194.81          |             | 203.70         | 148.88          | <b>149.37</b> |
|       | Standards    |               |               |               |               |               |                 |             |                |                 |               |
| 1     | CoS 767      | 153.09        | 110.78        | 131.56        | 97.90         | 114.04        | 188.39          |             | 200.37         | 135.30          | <b>141.43</b> |
| 2     | CoPant 97222 | 146.60        | 96.77         | 137.19        | 98.64         | 110.65        | 149.26          |             | 176.17         | 150.61          | <b>133.24</b> |
| 3     | Co 05011     | 135.34        | 98.35         | 152.43        | 98.27         | 109.72        | 182.34          |             | 171.36         | 122.10          | <b>133.74</b> |
|       | <b>Mean</b>  | <b>137.36</b> | <b>107.01</b> | <b>141.94</b> | <b>101.79</b> | <b>112.72</b> | <b>184.01</b>   |             | <b>190.71</b>  | <b>134.81</b>   | <b>138.79</b> |
|       | SE (m)       | 6.89          | 2.57          |               | 4.91          | 4.20          | 3.91            |             | 4.71           | 3.93            |               |
|       | CD at 5%     | 20.46         | 7.80          | NS            | 12.02         | 9.00          | 8.40            |             | 14.30          | 11.80           |               |
|       | CV           | 8.68          | 4.16          |               | 8.36          | 4.56          | 7.04            |             | 4.28           | 10.30           |               |



**Table 4.9.19 Germination (%) at 45 DAP**

| Sl No | Entry        | Faridkot     | Kapurthala   | Karnal       | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Mean         |
|-------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|-------------|----------------|-----------------|--------------|
| 1     | Co 16030     | 32.48        | 45.15        | 58.45        | 45.37        | 32.55        | 42.22           |             | 47.04          | 44.75           | <b>43.50</b> |
| 2     | CoLk 16203   | 41.45        | 63.50        | 63.77        | 46.30        | 38.17        | 31.20           |             | 54.07          | 41.11           | <b>47.45</b> |
| 3     | CoLk 16204   | 41.15        | 46.99        | 65.63        | 47.69        | 40.79        | 34.17           |             | 45.46          | 48.66           | <b>46.32</b> |
| 4     | CoS 16232    | 34.24        | 65.20        | 46.41        | 50.46        | 37.20        | 40.37           |             | 48.70          | 46.93           | <b>46.19</b> |
| 5     | CoS 16233    | 42.25        | 64.20        | 53.24        | 48.43        | 41.55        | 44.26           |             | 57.78          | 47.22           | <b>49.87</b> |
|       | Standards    |              |              |              |              |              |                 |             |                |                 |              |
| 1     | CoS 767      | 39.17        | 53.63        | 52.72        | 45.52        | 39.51        | 34.07           |             | 51.48          | 41.83           | <b>44.74</b> |
| 2     | CoPant 97222 | 34.98        | 39.54        | 46.41        | 43.62        | 34.70        | 33.24           |             | 44.91          | 44.66           | <b>40.26</b> |
| 3     | Co 05011     | 28.00        | 45.48        | 46.59        | 43.57        | 40.16        | 35.37           |             | 44.17          | 42.04           | <b>40.67</b> |
|       | <b>Mean</b>  | <b>36.85</b> | <b>52.96</b> | <b>54.15</b> | <b>46.37</b> | <b>38.08</b> | <b>36.86</b>    |             | <b>49.20</b>   | <b>44.65</b>    | <b>44.89</b> |
|       | SE (m)       | 1.54         | 3.03         | 2.44         | 3.00         | 1.35         | 0.41            |             | 1.18           | 0.98            |              |
|       | CD at 5%     | 4.57         | 9.19         | 7.49         | 7.34         | 2.89         | 0.88            |             | 3.59           | 2.95            |              |
|       | CV           | 7.22         | 9.91         | 7.82         | 11.21        | 4.34         | 4.92            |             | 4.16           | 4.54            |              |

**Table 4.9.20 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S. No | Genotype     | Lucknow | Shahjahan pur | Pantnagar | Muzaffar nagar | Karnal | Uchani | Kapurthala | Faridkot | Sriganganagar | Kota   |
|-------|--------------|---------|---------------|-----------|----------------|--------|--------|------------|----------|---------------|--------|
| 1     | Co 16030     | On par  | Better        | Better    | Better         | On par | NA     | Better     | Poor     | On par        | Poor   |
| 2     | CoLk 16203   | Poor    | On par        | On par    | On par         | Poor   | NA     | On par     | On par   | Poor          | Better |
| 3     | CoLk 16204   | Poor    | Better        | Poor      | Better         | Poor   | NA     | On par     | On par   | Poor          | Better |
| 4     | CoS 16232    | On par  | Better        | On par    | Better         | On par | NA     | On par     | On par   | Better        | On par |
| 5     | CoS 16233    | Better  | Better        | Better    | On par         | Better | NA     | Better     | On par   | Poor          | Better |
|       | Standards    |         |               |           |                |        |        |            |          |               |        |
| 1     | CoS 767      | Best    | Best          | II        | II             | II     | NA     | Best       | II       | II            | II     |
| 2     | CoPant 97222 | II      | II            | Best      | III            | Best   | NA     | III        | III      | Best          | III    |
| 3     | Co 05011     | III     | III           | III       | Best           | III    | NA     | II         | Best     | III           | Best   |

**NA = Not allotted**

#### 4.10 INITIAL VARIETAL TRIAL (MIDLATE)

|               |   |
|---------------|---|
| Centres (9)   | Faridkot, Kapurthala, Kota, Lucknow, Muzaffarnagar, Pantnagar, Shahjahanpur, Sriganaganagar and Uchani  |
| Entries (15)  | <ol style="list-style-type: none"> <li>1. Co 17018 (Co 0327 GC)</li> <li>2. CoLk 17204 (Co 89029 GC)</li> <li>3. CoLk 17205 (CoLk 91238 x Awela 68)</li> <li>4. CoPb 17213 (Co 88025 x Co 775)</li> <li>5. CoPb 17214 (81 V 48 x CoSe 92423)</li> <li>6. CoPb 17215 (CoJ 88216 GC)</li> <li>7. CoPant 17223 (CoPant 97222 GC)</li> <li>8. CoPant 17224 (CoPant 90223 x BO 91)</li> <li>9. CoS 17233 (LG 97050 x Co 775)</li> <li>10. CoS 17234 (CoS 8436 x Co 775)</li> <li>11. CoS 17235 (CoH 56 GC)</li> <li>12. CoS 17236 (CoSe 92423 PC)</li> <li>13. CoS 17237 (CoS 8436 x Co 1148)</li> <li>14. CoH 17261 (CoH 102 GC)</li> <li>15. CoH 17262 (CoH 102 GC)</li> </ol> |
| Standards (3) | CoS 767, CoPant 97222 and Co 05011  |
| Design        | RBD   |
| Replications  | 3   |
| Plot size     | Gross : 6 rows × 6 m × 0.90 m<br>Net : 4 rows × 5 m × 0.90 m  |
| Bud rate      | 12 buds/metre   |
| Planting time | February/March, 2020  |
| Crop Duration | 12 months   |

#### Results of the previous year:

The entries were under multiplication in the respective centres

#### Results of the current years:

Fifteen test entries were evaluated along with three standards in RCBD at nine AICRP(S) centres in North West Zone. CoPant 97222 was the best standard for CCS yield and cane yield with zonal mean of 11.56 t/ha and 91.53 t/ha, respectively. CoPb 17214 (14.27 t/ha) and CoPant 17223 (13.40 t/ha) were the two test entries that recorded > 10% CCS yield over CoPant 97222. Five entries recorded > 10% cane yield over CoPant 97222. They were: CoPb 17214 (114.38 t/ha), CoPant 17223 (109.15 t/ha), CoPb 17215 (102.46 t/ha), CoS 17235 (101.88 t/ha) and CoPant 17224 (101.59 t/ha). For juice quality traits, Co 05011 was the best among the standards with CCS % of 12.80 and sucrose % of 18.41. Test entries Co 17018

*Varietal Improvement Programme – AICRP (Sugarcane)*  
*Principal Investigator's Report (2020-21)*  
*North West Zone – IVT (Midlate)*

(13.18 %), CoH 17262 (12.96%), CoH 17261 (12.84%) and CoS 17233 (12.83%) recorded numerically higher CCS % than Co 05011. Similarly, test clones such as Co 17018 (18.96 %), CoH 17262 (18.62%), CoS 17233 (18.50%) and CoH 17261 (18.44%) recorded numerically higher sucrose than the best standard. Nonetheless, the percent improvement over Co 05011 in these clones for CCS % and sucrose % was lesser than 5%. On the basis of overall mean and the criteria set for identifying qualifying entry, no entry was identified as qualifying entry. Further details are presented in Tables 4.10.1 to 4.10.19.

**Table 4.10.1. CCS (t/ha) at harvest**

| S. No.   | Entry            | Faridkot     | Kapurthala   | Kota        | Lucknow     | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         | Rank |
|--|------------------|--------------|--------------|-------------|-------------|----------------|--------------|---------------|----------------|--------------|--------------|------|
| 1  | Co 17018         | 13.25        | 12.31        | 10.69       | 9.53        | 10.77          | 16.74        | 13.35         | 14.63          | 12.83        | 12.68        | 3    |
| 2  | CoLk 17204       | 12.46        | 12.29        | 9.53        | 11.91       | 8.23           | 8.16         | 9.07          | 14.39          | 10.18        | 10.69        |      |
| 3  | CoLk 17205       | 13.09        | 8.41         | 10.33       | 7.42        | 10.04          | 9.01         | 9.97          | 13.61          | 7.87         | 9.97         |      |
| 4  | CoPb 17213       | 15.44        | 11.56        | 10.59       | 11.51       | 12.52          | 10.52        | 10.23         | 11.28          | 11.81        | 11.72        |      |
| 5  | CoPb 17214       | 21.08        | 10.04        | 8.72        | 13.89       | 13.50          | 20.62        | 13.62         | 13.61          | 13.36        | 14.27        | 1    |
| 6  | CoPb 17215       | 16.14        | 9.72         | 8.51        | 9.67        | 11.87          | 14.70        | 12.80         | 14.39          | 12.81        | 12.29        |      |
| 7  | CoPant 17223     | 17.79        | 10.97        | 7.53        | 12.47       | 10.95          | 18.92        | 14.65         | 13.57          | 13.75        | 13.40        | 2    |
| 8  | CoPant 17224     | 12.53        | 8.62         | 6.53        | 11.48       | 11.25          | 13.32        | 12.23         | 12.12          | 11.80        | 11.10        |      |
| 9  | CoS 17233        | 9.95         | 11.83        | 9.84        | 12.93       | 11.69          | 18.42        | 14.22         | 12.84          | 11.36        | 12.56        |      |
| 10   | CoS 17234        | 12.26        | 12.12        | 9.13        | 7.15        | 11.72          | 19.99        | 12.54         | 12.04          | 11.13        | 12.01        |      |
| 11   | CoS 17235        | 15.59        | 9.50         | 11.51       | 13.13       | 11.09          | 13.94        | 11.22         | 14.43          | 13.12        | 12.61        |      |
| 12   | CoS 17236        | 15.53        | 10.80        | 7.18        | 8.86        | 13.20          | 17.56        | 13.32         | 10.89          | 12.74        | 12.23        |      |
| 13   | CoS 17237        | 15.40        | 11.53        | 7.83        | 6.10        | 10.37          | 13.20        | 8.99          | 12.24          | 10.50        | 10.68        |      |
| 14   | CoH 17261        | 11.90        | 11.48        | 8.09        | 7.08        | 8.40           | 11.95        | 10.45         | 13.72          | 13.43        | 10.72        |      |
| 15   | CoH 17262        | 11.57        | 10.43        | 7.09        | 5.32        | 10.28          | 9.75         | 10.06         | 10.78          | 14.39        | 9.96         |      |
|  | <b>Standards</b> |              |              |             |             |                |              |               |                |              |              |      |
| 1  | CoS 767          | 10.45        | 10.66        | 7.60        | 7.88        | 10.09          | 12.83        | 10.33         | 12.82          | 10.72        | 10.38        |      |
| 2  | CoPant 97222     | 10.67        | 8.39         | 10.44       | 11.39       | 10.74          | 14.97        | 11.21         | 14.80          | 11.47        | 11.56        |      |
| 3  | Co 05011         | 12.35        | 9.37         | 10.62       | 10.30       | 10.05          | 14.40        | 10.27         | 12.81          | 11.49        | 11.30        |      |
|  | <b>Mean</b>      | <b>13.76</b> | <b>10.56</b> | <b>8.99</b> | <b>9.89</b> | <b>10.93</b>   | <b>14.39</b> | <b>11.58</b>  | <b>13.05</b>   | <b>11.94</b> | <b>11.68</b> |      |
|  | SE (m)           | 1.04         | 0.43         | 0.62        | 0.70        | 0.46           | 0.60         | 0.55          | 0.35           | 0.53         |              |      |
|  | CD at 5%         | 2.99         | 1.24         | 1.43        | 1.41        | 0.94           | 1.74         | 1.57          | 1.04           | 1.53         |              |      |
|  | CV               | 13.03        | 7.06         | 11.89       | 8.62        | 9.30           | 7.24         | 8.18          | 1.49           | 7.69         |              |      |
| <b>Top three entries recorded &gt;10 % improvement over the best standard at each location</b> |                  |              |              |             |             |                |              |               |                |              |              |      |
|  | Rank-1           | CoPb 17214   | Co 17018     |             | CoPb 17214  | CoPb 17214     | CoPb 17214   | CoPant 17223  |                | CoH 17262    | CoPb 17214   |      |
|  | Rank-2           | CoPant 17223 | CoLk 17204   |             | CoS 17235   | CoS 17236      | CoS 17234    | CoS 17233     |                | CoPant 17223 | CoPant 17223 |      |
|  | Rank-3           | CoPb 17215   | CoS 17234    |             | CoS 17233   | CoPb 17213     | CoPant 17223 | CoPb 17214    |                | CoH 17261    |              |      |

**No. of locations where an entry recorded >10 % improvement over the best standard:** CoPb 17214 (5), CoPant 17223 (4), CoS 17233 (2), CoS 17234 (2), Co 17018 (1), CoLk 17204 (1), CoPb 17215 (1), CoS 17235 (1), CoS 17236 (1), CoPb 17213 (1), CoH 17261 (1) and CoH 17262 (1)  
**Performance across locations:** CoPant 97222 was the best among the standards for CCS yield (11.56 t/ha). Two test entries recorded > 10% CCS yield over CoPant 97222. They were: CoPb 17214 (14.27 t/ha) and CoPant 17223 (13.40 t/ha).

**Table 4.10.2. Cane yield (t/ha) at harvest**

| S. No.   | Entry        | Faridkot      | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar    | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         | Rank |
|--|--------------|---------------|--------------|--------------|--------------|----------------|---------------|---------------|----------------|--------------|--------------|------|
| 1  | Co 17018     | 90.74         | 93.89        | 98.24        | 65.98        | 85.65          | 115.22        | 98.13         | 121.60         | 99.70        | 96.57        |      |
| 2  | CoLk 17204   | 90.43         | 89.60        | 80.22        | 90.60        | 66.29          | 64.15         | 70.43         | 117.53         | 79.00        | 83.14        |      |
| 3  | CoLk 17205   | 95.99         | 88.47        | 93.35        | 63.22        | 84.44          | 72.01         | 78.49         | 106.67         | 72.46        | 83.90        |      |
| 4  | CoPb 17213   | 109.26        | 84.76        | 114.38       | 86.06        | 98.52          | 77.75         | 76.62         | 95.19          | 91.30        | 92.65        |      |
| 5  | CoPb 17214   | 161.42        | 98.58        | 73.87        | 98.78        | 110.18         | 160.63        | 104.77        | 113.21         | 107.94       | 114.38       | 1    |
| 6  | CoPb 17215   | 133.33        | 100.86       | 80.61        | 78.31        | 96.48          | 109.57        | 96.63         | 120.74         | 105.60       | 102.46       | 3    |
| 7  | CoPant 17223 | 136.42        | 98.86        | 91.02        | 97.05        | 90.37          | 140.30        | 112.02        | 107.53         | 108.77       | 109.15       | 2    |
| 8  | CoPant 17224 | 117.90        | 106.49       | 70.36        | 91.43        | 95.74          | 112.86        | 110.30        | 101.36         | 107.87       | 101.59       |      |
| 9  | CoS 17233    | 72.22         | 88.17        | 87.07        | 94.33        | 89.26          | 134.13        | 107.31        | 107.90         | 89.08        | 96.61        |      |
| 10   | CoS 17234    | 90.43         | 100.33       | 89.95        | 53.51        | 90.74          | 157.83        | 95.78         | 100.74         | 91.63        | 96.77        |      |
| 11   | CoS 17235    | 116.36        | 96.76        | 99.33        | 93.61        | 88.51          | 105.33        | 82.14         | 128.15         | 106.73       | 101.88       |      |
| 12   | CoS 17236    | 115.12        | 89.45        | 76.76        | 71.71        | 102.41         | 132.07        | 99.58         | 98.89          | 107.27       | 99.25        |      |
| 13   | CoS 17237    | 121.30        | 76.37        | 73.20        | 54.05        | 80.74          | 99.06         | 67.83         | 103.21         | 88.04        | 84.87        |      |
| 14   | CoH 17261    | 83.64         | 97.82        | 68.01        | 55.93        | 68.89          | 93.36         | 78.87         | 111.11         | 100.77       | 84.27        |      |
| 15   | CoH 17262    | 74.38         | 66.89        | 82.68        | 42.35        | 82.03          | 68.91         | 73.75         | 89.00          | 103.83       | 75.98        |      |
| <b>Standards</b>   |              |               |              |              |              |                |               |               |                |              |              |      |
| 1  | CoS 767      | 77.47         | 88.45        | 71.65        | 62.26        | 80.37          | 101.11        | 79.90         | 111.98         | 89.33        | 84.72        |      |
| 2  | CoPant 97222 | 78.09         | 68.66        | 94.07        | 80.79        | 84.26          | 112.10        | 82.82         | 124.81         | 98.15        | 91.53        |      |
| 3  | Co 05011     | 90.12         | 78.00        | 85.57        | 76.29        | 78.89          | 108.01        | 75.98         | 109.63         | 94.49        | 88.55        |      |
|  | <b>Mean</b>  | <b>102.69</b> | <b>89.58</b> | <b>85.02</b> | <b>75.35</b> | <b>87.43</b>   | <b>109.13</b> | <b>88.41</b>  | <b>109.40</b>  | <b>96.78</b> | <b>93.75</b> |      |
|  | SE (m)       | 7.97          | 2.81         | 5.51         | 5.22         | 3.69           | 4.05          | 4.15          | 3.69           | 3.84         |              |      |
|  | CD at 5%     | 23.03         | 8.09         | 12.78        | 10.60        | 7.50           | 11.69         | 11.92         | 11.07          | 11.10        |              |      |
|  | CV           | 13.45         | 5.44         | 11.23        | 8.49         | 9.31           | 6.43          | 8.13          | 16.00          | 6.88         |              |      |
| <b>Top three entries recorded &gt;10 % improvement over the best standard at each location</b> |              |               |              |              |              |                |               |               |                |              |              |      |
|  | Rank-1       | CoPb 17214    | CoPant 17224 | CoPb 17213   | CoPb 17214   | CoPb 17214     | CoPb 17214    | CoPant 17223  | CoS 17235      | CoPant 17223 | CoPb 17214   |      |
|  | Rank-2       | CoPant 17223  | CoPb 17215   |              | CoPant 17223 | CoS 17236      | CoS 17234     | CoPant 17224  | Co 17018       |              | CoPant 17223 |      |
|  | Rank-3       | CoPb 17215    | CoS 17234    |              | CoS 17233    | CoPb 17213     | CoPant 17223  | CoS 17233     | CoPb 17215     |              | CoPb 17215   |      |

**No. of locations where an entry recorded >10 % improvement over the best standard: CoPant 17223 (5), CoPb 17215 (4), CoPb 17214 (4), CoPb 17215 (3), CoPant 17224 (2), CoS 17234 (2), CoPb 17213 (2), CoS 17233 (2), CoS 17235 (1), CoS 17236 (1) and Co 17018 (1).**

**Performance across locations:** CoPant 97222 was the best among the standards for cane yield (91.53 t/ha). Five test entries recorded > 10% cane yield over CoPant 97222. They were: CoPb 17214 (114.38 t/ha), CoPant 17223 (109.15 t/ha), CoPb 17215 (102.46 t/ha), CoS 17235 (101.88 t/ha) and CoPant 17224 (101.59 t/ha).

**Table 4.10.3. CCS% at harvest**

| S. No.   | Entry        | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         | Rank |
|--|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|------|
| 1  | Co 17018     | 14.61        | 13.10        | 10.88        | 14.42        | 12.60          | 14.53        | 13.61         | 12.03          | 12.87        | <b>13.18</b> | 1    |
| 2  | CoLk 17204   | 13.75        | 12.56        | 11.79        | 13.15        | 12.42          | 12.72        | 12.88         | 12.25          | 12.89        | <b>12.71</b> |      |
| 3  | CoLk 17205   | 13.64        | 12.57        | 11.03        | 11.77        | 11.90          | 12.53        | 12.67         | 12.76          | 10.85        | <b>12.19</b> |      |
| 4  | CoPb 17213   | 14.14        | 12.89        | 9.28         | 13.36        | 12.73          | 13.53        | 13.34         | 11.84          | 12.91        | <b>12.67</b> |      |
| 5  | CoPb 17214   | 13.04        | 11.35        | 11.83        | 14.05        | 12.26          | 12.83        | 13.00         | 12.02          | 12.38        | <b>12.53</b> |      |
| 6  | CoPb 17215   | 12.12        | 11.47        | 10.55        | 12.41        | 12.31          | 13.42        | 13.22         | 11.92          | 12.11        | <b>12.17</b> |      |
| 7  | CoPant 17223 | 13.04        | 11.10        | 8.27         | 12.83        | 12.11          | 13.48        | 13.10         | 12.62          | 12.66        | <b>12.13</b> |      |
| 8  | CoPant 17224 | 10.64        | 8.53         | 9.28         | 12.58        | 11.75          | 11.80        | 11.09         | 11.95          | 10.93        | <b>10.95</b> |      |
| 9  | CoS 17233    | 13.78        | 11.96        | 11.31        | 13.77        | 12.98          | 13.73        | 13.27         | 11.90          | 12.73        | <b>12.83</b> |      |
| 10   | CoS 17234    | 13.56        | 11.39        | 10.14        | 13.38        | 12.91          | 12.67        | 13.09         | 11.95          | 12.16        | <b>12.36</b> |      |
| 11   | CoS 17235    | 13.41        | 10.77        | 11.59        | 14.06        | 12.51          | 13.24        | 13.66         | 11.26          | 12.28        | <b>12.53</b> |      |
| 12   | CoS 17236    | 13.49        | 10.77        | 9.36         | 12.39        | 12.87          | 13.29        | 13.37         | 11.02          | 11.89        | <b>12.05</b> |      |
| 13   | CoS 17237    | 12.70        | 11.93        | 10.65        | 11.31        | 12.87          | 13.32        | 13.27         | 11.86          | 11.94        | <b>12.21</b> |      |
| 14   | CoH 17261    | 14.23        | 12.83        | 11.87        | 12.66        | 12.21          | 12.80        | 13.24         | 12.35          | 13.34        | <b>12.84</b> | 3    |
| 15   | CoH 17262    | 15.54        | 13.65        | 8.60         | 12.59        | 12.53          | 14.14        | 13.65         | 12.12          | 13.85        | <b>12.96</b> | 2    |
| <b>Standards</b>   |              |              |              |              |              |                |              |               |                |              |              |      |
| 1  | CoS 767      | 13.51        | 12.06        | 10.60        | 12.65        | 12.53          | 12.68        | 12.93         | 11.45          | 12.00        | <b>12.27</b> |      |
| 2  | CoPant 97222 | 13.66        | 12.22        | 11.11        | 14.10        | 12.77          | 13.36        | 13.53         | 11.86          | 11.70        | <b>12.70</b> |      |
| 3  | Co 05011     | 13.70        | 12.02        | 12.45        | 13.49        | 12.76          | 13.33        | 13.54         | 11.69          | 12.18        | <b>12.80</b> |      |
|  | <b>Mean</b>  | <b>13.52</b> | <b>11.84</b> | <b>10.59</b> | <b>13.05</b> | <b>12.50</b>   | <b>13.19</b> | <b>13.14</b>  | <b>11.94</b>   | <b>12.32</b> | <b>12.45</b> |      |
|  | SE (m)       | 0.16         | 0.22         | 0.23         | 0.62         | 0.31           | 0.20         | 0.27          | 0.22           | 0.23         |              |      |
|  | CD at 5%     | 0.45         | 0.62         | 0.54         | 1.26         | 0.63           | 0.57         | 0.79          | 0.65           | 0.67         |              |      |
|  | CV           | 2.00         | 3.17         | 3.78         | 5.82         | 3.02           | 2.57         | 3.62          | 3.62           | 3.26         |              |      |
| <b>Top three entries recorded &gt; 5 % improvement over the best standard at each location</b> |              |              |              |              |              |                |              |               |                |              |              |      |
|  | Rank-1       | CoH 17262    | CoH 17262    |              |              |                | Co 17018     |               | CoLk 17205     | CoH 17262    |              |      |
|  | Rank-2       | Co 17018     | Co 17018     |              |              |                | CoH 17262    |               | CoPant 17223   | CoH 17261    |              |      |
|  | Rank-3       |              | CoPb 17213   |              |              |                |              |               |                | CoPb 17213   |              |      |

**No. of locations where an entry recorded >5 % improvement over the best standard:** CoH 17262 (4), Co 17018 (3), CoPb 17213 (2), CoLk 17205 (1), CoPant 17223 (1) and CoH 17262 (1)

**Performance across locations:** Among the standards, Co 05011 was the best for CCS % (12.80). Test clones Co 17018 (13.18 %), CoH 17262 (12.96%), CoH 17261 (12.84%) and CoS 17233 (12.83%) recorded numerically higher CCS % than the best standard. However, their percent improvement over Co 05011 was less than 5%.

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**Table 4.10.4. Sucrose (%) at harvest**

| S. No.   | Entry        | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         | Rank |
|--|--------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|------|
| 1  | Co 17018     | 20.72        | 18.55        | 15.94        | 20.50        | 18.33          | 21.12        | 19.65         | 17.26          | 18.61        | 18.96        | 1    |
| 2  | CoLk 17204   | 19.61        | 18.05        | 17.18        | 18.90        | 18.07          | 18.44        | 18.68         | 17.82          | 18.69        | 18.38        |      |
| 3  | CoLk 17205   | 19.31        | 17.87        | 16.15        | 16.97        | 17.29          | 18.27        | 18.38         | 18.25          | 15.93        | 17.60        |      |
| 4  | CoPb 17213   | 19.89        | 18.34        | 13.78        | 19.16        | 18.45          | 19.55        | 19.30         | 17.19          | 18.66        | 18.26        |      |
| 5  | CoPb 17214   | 18.59        | 16.26        | 12.71        | 20.13        | 17.77          | 18.59        | 18.85         | 17.26          | 17.89        | 17.56        |      |
| 6  | CoPb 17215   | 17.63        | 16.33        | 15.49        | 17.87        | 17.83          | 19.47        | 19.14         | 17.18          | 17.70        | 17.63        |      |
| 7  | CoPant 17223 | 18.62        | 16.03        | 12.40        | 18.43        | 17.65          | 19.48        | 18.97         | 18.05          | 18.02        | 17.52        |      |
| 8  | CoPant 17224 | 15.64        | 12.56        | 13.78        | 18.14        | 17.33          | 17.31        | 16.29         | 17.19          | 16.00        | 16.03        |      |
| 9  | CoS 17233    | 19.59        | 17.14        | 16.53        | 19.78        | 18.91          | 19.85        | 19.17         | 17.03          | 18.53        | 18.50        | 3    |
| 10   | CoS 17234    | 19.30        | 16.31        | 14.95        | 19.10        | 18.71          | 18.37        | 18.98         | 17.18          | 17.56        | 17.83        |      |
| 11   | CoS 17235    | 19.06        | 15.60        | 16.90        | 20.27        | 18.17          | 19.04        | 19.70         | 16.15          | 17.80        | 18.08        |      |
| 12   | CoS 17236    | 19.12        | 15.66        | 13.88        | 17.81        | 18.69          | 19.26        | 19.35         | 16.19          | 17.36        | 17.48        |      |
| 13   | CoS 17237    | 18.30        | 17.06        | 15.63        | 16.32        | 18.62          | 19.32        | 19.20         | 17.03          | 17.28        | 17.64        |      |
| 14   | CoH 17261    | 20.03        | 18.26        | 17.28        | 18.24        | 17.77          | 18.52        | 19.17         | 17.82          | 18.85        | 18.44        |      |
| 15   | CoH 17262    | 21.70        | 19.30        | 12.85        | 18.28        | 18.15          | 20.48        | 19.68         | 17.49          | 19.64        | 18.62        | 2    |
| <b>Standards</b>   |              |              |              |              |              |                |              |               |                |              |              |      |
| 1  | CoS 767      | 19.17        | 17.32        | 15.56        | 18.26        | 18.20          | 18.43        | 18.74         | 16.59          | 17.40        | 17.74        |      |
| 2  | CoPant 97222 | 19.27        | 17.41        | 16.25        | 20.23        | 18.50          | 19.39        | 19.55         | 17.03          | 16.93        | 18.28        |      |
| 3  | Co 05011     | 19.30        | 17.12        | 18.07        | 19.39        | 18.43          | 19.39        | 19.55         | 16.82          | 17.64        | 18.41        |      |
|  | <b>Mean</b>  | <b>19.21</b> | <b>16.95</b> | <b>15.30</b> | <b>18.77</b> | <b>18.16</b>   | <b>19.13</b> | <b>19.02</b>  | <b>17.20</b>   | <b>17.81</b> | <b>17.95</b> |      |
|  | SE (m)       | 0.19         | 0.31         | 0.89         | 0.83         | 0.45           | 0.25         | 0.36          | 0.21           | 0.30         |              |      |
|  | CD at 5%     | 0.54         | 0.89         | 2.07         | 1.69         | 0.92           | 0.71         | 1.04          | 0.63           | 0.87         |              |      |
|  | CV           | 1.67         | 3.16         | 10.12        | 5.42         | 3.04           | 2.22         | 3.31          | 2.32           | 2.94         |              |      |
| <b>Top three entries recorded &gt; 5 % improvement over the best standard at each location</b> |              |              |              |              |              |                |              |               |                |              |              |      |
|  | Rank-1       | CoH 17262    | CoH 17262    |              |              |                | Co 17018     |               | CoLk 17205     | CoH 17262    |              |      |
|  | Rank-2       | Co 17018     | Co 17018     |              |              |                | CoH 17262    |               | CoPant 17223   | CoH 17261    |              |      |
|  | Rank-3       |              | CoPb 17213   |              |              |                |              |               |                | CoLk 17204   |              |      |

**No. of locations where an entry recorded >5 % improvement over the best standard:** CoH 17262 (4), Co 17018 (3), CoH 17262 (1), CoLk 17204 (1), CoLk 17205 (1), CoPant 17223 (1) and CoPb 17213 (1).  
**Performance across locations:** Among the standards, Co 05011 was the best for sucrose % (18.41). Test clones Co 17018 (18.96 %), CoH 17262 (18.62%), CoS 17233 (18.50%) and CoH 17261 (18.44%) recorded numerically higher sucrose than the best standard. However, their percent improvement over Co 05011 was less than 5%.



**Table 4.10.5. Brix (%) at harvest**

| S. No. | Entry            | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 17018         | 22.47        | 20.03        | 18.53        | 22.37        | 20.96          | 24.17        | 22.16         | 19.20          | 21.06        | 21.22        |
| 2      | CoLk 17204       | 21.53        | 20.17        | 19.73        | 21.12        | 20.70          | 21.00        | 21.27         | 20.43          | 21.26        | 20.80        |
| 3      | CoLk 17205       | 20.87        | 19.50        | 18.73        | 19.10        | 19.76          | 21.03        | 20.94         | 20.17          | 18.58        | 19.85        |
| 4      | CoPb 17213       | 21.20        | 20.03        | 16.43        | 21.32        | 20.99          | 22.07        | 21.85         | 19.60          | 21.10        | 20.51        |
| 5      | CoPb 17214       | 20.43        | 18.03        | 15.40        | 22.34        | 20.19          | 21.13        | 21.47         | 19.23          | 20.23        | 19.83        |
| 6      | CoPb 17215       | 20.20        | 17.90        | 18.10        | 20.07        | 20.26          | 22.17        | 21.70         | 19.33          | 20.45        | 20.02        |
| 7      | CoPant 17223     | 20.50        | 18.07        | 15.10        | 20.57        | 20.29          | 22.00        | 21.54         | 19.97          | 19.71        | 19.75        |
| 8      | CoPant 17224     | 18.30        | 14.77        | 16.43        | 20.38        | 19.96          | 20.17        | 19.05         | 19.23          | 18.58        | 18.54        |
| 9      | CoS 17233        | 21.40        | 19.03        | 19.10        | 22.05        | 21.29          | 22.47        | 21.66         | 18.85          | 21.25        | 20.79        |
| 10     | CoS 17234        | 21.10        | 18.07        | 17.57        | 21.01        | 21.26          | 20.90        | 21.59         | 19.21          | 19.83        | 20.06        |
| 11     | CoS 17235        | 20.77        | 17.70        | 19.47        | 22.78        | 20.73          | 21.30        | 22.16         | 17.97          | 20.23        | 20.35        |
| 12     | CoS 17236        | 20.70        | 17.93        | 16.53        | 19.88        | 21.29          | 21.90        | 21.91         | 18.94          | 20.03        | 19.90        |
| 13     | CoS 17237        | 20.57        | 18.87        | 18.23        | 18.36        | 21.09          | 22.00        | 21.74         | 18.99          | 19.58        | 19.94        |
| 14     | CoH 17261        | 21.40        | 19.97        | 19.83        | 20.46        | 20.36          | 21.00        | 21.76         | 20.07          | 20.28        | 20.57        |
| 15     | CoH 17262        | 22.73        | 20.80        | 15.53        | 20.84        | 20.59          | 23.23        | 22.13         | 19.73          | 21.30        | 20.76        |
|        | <b>Standards</b> |              |              |              |              |                |              |               |                |              |              |
| 1      | CoS 767          | 20.83        | 19.33        | 18.17        | 20.61        | 20.79          | 21.07        | 21.33         | 18.85          | 19.81        | 20.09        |
| 2      | CoPant 97222     | 20.67        | 19.10        | 18.83        | 22.54        | 21.03          | 22.10        | 22.08         | 18.98          | 19.18        | 20.50        |
| 3      | Co 05011         | 20.63        | 18.77        | 20.60        | 21.67        | 20.82          | 22.20        | 22.06         | 18.84          | 20.05        | 20.63        |
|        | <b>Mean</b>      | <b>20.92</b> | <b>18.78</b> | <b>17.91</b> | <b>20.97</b> | <b>20.69</b>   | <b>21.77</b> | <b>21.58</b>  | <b>19.31</b>   | <b>20.14</b> | <b>20.23</b> |
|        | SE (m)           | 0.15         | 0.39         | 0.87         | 0.83         | 0.43           | 0.23         | 0.33          | 0.24           | 0.33         |              |
|        | CD at 5%         | 0.44         | 1.11         | 2.01         | 1.69         | 0.88           | 0.66         | 0.96          | 0.72           | 0.95         |              |
|        | CV               | 1.26         | 3.56         | 8.38         | 4.87         | 2.55           | 1.81         | 2.68          | 2.13           | 2.84         |              |

**Table 4.10.6. Purity (%) at harvest**

| S. No. | Entry            | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|-----------------|--------------|----------------|-----------------|--------------|--------------|
| 1      | Co 17018         | 92.20        | 92.61        | 86.01        | 90.19        | 87.39           | 87.40        | 88.64          | 89.91           | 88.38        | <b>89.19</b> |
| 2      | CoLk 17204       | 91.04        | 89.51        | 87.04        | 89.47        | 87.30           | 87.83        | 87.85          | 87.22           | 87.93        | <b>88.35</b> |
| 3      | CoLk 17205       | 92.54        | 91.62        | 86.19        | 88.85        | 87.49           | 86.84        | 87.68          | 90.48           | 85.77        | <b>88.61</b> |
| 4      | CoPb 17213       | 93.82        | 91.53        | 83.82        | 89.87        | 87.90           | 88.58        | 88.33          | 87.70           | 88.43        | <b>88.89</b> |
| 5      | CoPb 17214       | 91.00        | 90.15        | 78.99        | 90.13        | 87.99           | 87.96        | 87.81          | 89.76           | 88.46        | <b>88.03</b> |
| 6      | CoPb 17215       | 87.30        | 91.27        | 85.61        | 89.00        | 88.02           | 87.81        | 88.18          | 88.89           | 86.54        | <b>88.07</b> |
| 7      | CoPant 17223     | 90.83        | 88.69        | 82.13        | 89.59        | 86.99           | 88.56        | 88.07          | 90.39           | 91.40        | <b>88.52</b> |
| 8      | CoPant 17224     | 85.45        | 85.22        | 83.83        | 89.01        | 86.81           | 85.81        | 85.53          | 89.39           | 86.10        | <b>86.35</b> |
| 9      | CoS 17233        | 91.55        | 90.09        | 86.51        | 89.57        | 88.78           | 88.37        | 88.48          | 90.31           | 87.19        | <b>88.98</b> |
| 10     | CoS 17234        | 91.47        | 90.27        | 85.07        | 90.91        | 87.98           | 87.88        | 87.92          | 89.44           | 88.57        | <b>88.83</b> |
| 11     | CoS 17235        | 91.76        | 88.13        | 86.83        | 88.98        | 87.64           | 89.38        | 88.88          | 89.87           | 88.00        | <b>88.83</b> |
| 12     | CoS 17236        | 92.35        | 87.33        | 83.95        | 89.52        | 87.77           | 87.90        | 88.30          | 85.48           | 86.67        | <b>87.70</b> |
| 13     | CoS 17237        | 89.00        | 90.43        | 85.70        | 88.82        | 88.25           | 87.81        | 88.28          | 89.68           | 88.24        | <b>88.47</b> |
| 14     | CoH 17261        | 93.62        | 91.46        | 87.11        | 89.15        | 87.26           | 88.21        | 88.08          | 88.79           | 92.98        | <b>89.63</b> |
| 15     | CoH 17262        | 95.46        | 92.79        | 82.70        | 87.69        | 88.12           | 88.13        | 88.90          | 88.67           | 92.22        | <b>89.41</b> |
|        | <b>Standards</b> |              |              |              |              |                 |              |                |                 |              |              |
| 1      | CoS 767          | 92.01        | 89.59        | 85.67        | 88.57        | 87.53           | 87.46        | 87.88          | 88.00           | 87.83        | <b>88.28</b> |
| 2      | CoPant 97222     | 93.26        | 91.17        | 86.29        | 89.87        | 87.97           | 87.72        | 88.54          | 89.68           | 88.27        | <b>89.20</b> |
| 3      | Co 05011         | 93.56        | 91.25        | 87.72        | 89.48        | 88.48           | 87.33        | 88.62          | 89.26           | 88.00        | <b>89.30</b> |
|        | <b>Mean</b>      | <b>91.74</b> | <b>90.17</b> | <b>85.07</b> | <b>89.37</b> | <b>87.76</b>    | <b>87.83</b> | <b>88.11</b>   | <b>89.05</b>    | <b>88.39</b> | <b>88.61</b> |
|        | SE (m)           | 0.53         | 0.76         | 1.76         | 1.06         | 0.51            | 0.57         | 0.36           | 1.52            | 0.79         |              |
|        | CD at 5%         | 1.53         | 2.18         | 4.08         | NS           | 1.05            | NS           | 1.03           | 4.61            | 2.28         |              |
|        | CV               | 1.00         | 1.46         | 3.58         | 1.46         | 0.72            | 1.13         | 0.70           | 2.98            | 1.55         |              |

**Table 4.10.7. Juice Extraction (%) at harvest**

| S. No. | Entry            | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|-----------------|-------------|----------------|-----------------|--------------|--------------|
| 1      | Co 17018         | 52.08        | 54.99        | 46.40        | 52.12        | 49.24           |             | 53.66          | 49.44           | 66.62        | <b>53.07</b> |
| 2      | CoLk 17204       | 49.75        | 54.39        | 46.30        | 50.75        | 45.68           |             | 57.40          | 47.91           | 61.83        | <b>51.75</b> |
| 3      | CoLk 17205       | 51.53        | 51.83        | 48.81        | 51.81        | 49.38           |             | 53.53          | 49.23           | 64.29        | <b>52.55</b> |
| 4      | CoPb 17213       | 44.59        | 52.48        | 44.79        | 48.94        | 50.22           |             | 52.93          | 46.03           | 60.05        | <b>50.00</b> |
| 5      | CoPb 17214       | 50.11        | 52.99        | 45.00        | 51.10        | 48.64           |             | 55.88          | 50.31           | 57.99        | <b>51.50</b> |
| 6      | CoPb 17215       | 51.14        | 53.22        | 43.15        | 50.85        | 50.37           |             | 51.88          | 48.78           | 62.54        | <b>51.49</b> |
| 7      | CoPant 17223     | 51.62        | 54.40        | 41.80        | 52.64        | 47.19           |             | 55.96          | 49.23           | 60.85        | <b>51.71</b> |
| 8      | CoPant 17224     | 54.17        | 55.23        | 43.29        | 49.00        | 46.55           |             | 55.55          | 44.80           | 64.34        | <b>51.62</b> |
| 9      | CoS 17233        | 50.00        | 53.08        | 46.00        | 56.87        | 52.05           |             | 54.46          | 48.84           | 68.35        | <b>53.71</b> |
| 10     | CoS 17234        | 52.15        | 54.39        | 45.54        | 51.65        | 48.46           |             | 54.70          | 46.79           | 63.07        | <b>52.09</b> |
| 11     | CoS 17235        | 50.69        | 54.53        | 46.68        | 50.71        | 50.21           |             | 54.79          | 45.54           | 61.45        | <b>51.83</b> |
| 12     | CoS 17236        | 51.10        | 51.55        | 47.20        | 50.15        | 50.55           |             | 54.13          | 47.83           | 65.18        | <b>52.21</b> |
| 13     | CoS 17237        | 55.07        | 55.64        | 46.63        | 49.32        | 45.86           |             | 54.34          | 45.34           | 66.10        | <b>52.29</b> |
| 14     | CoH 17261        | 56.01        | 55.23        | 44.99        | 51.20        | 51.06           |             | 54.61          | 45.41           | 66.92        | <b>53.18</b> |
| 15     | CoH 17262        | 51.93        | 54.60        | 44.95        | 52.60        | 48.59           |             | 52.41          | 40.94           | 64.87        | <b>51.36</b> |
|        | <b>Standards</b> |              |              |              |              |                 |             |                |                 |              |              |
| 1      | CoS 767          | 51.94        | 53.63        | 44.89        | 49.97        | 49.92           |             | 58.20          | 46.68           | 61.27        | <b>52.06</b> |
| 2      | CoPant 97222     | 54.28        | 52.03        | 44.31        | 50.59        | 49.44           |             | 52.71          | 46.53           | 57.12        | <b>50.88</b> |
| 3      | Co 05011         | 51.97        | 56.72        | 44.68        | 48.94        | 50.38           |             | 55.26          | 49.66           | 66.31        | <b>52.99</b> |
|        | <b>Mean</b>      | <b>51.64</b> | <b>53.94</b> | <b>45.30</b> | <b>51.07</b> | <b>49.09</b>    |             | <b>54.58</b>   | <b>47.18</b>    | <b>63.29</b> | <b>52.01</b> |
|        | SE (m)           | 0.76         | 0.69         | 1.20         | 1.78         | -               |             | 1.16           | 0.67            | 1.54         |              |
|        | CD at 5%         | 2.20         | 1.97         | 2.77         | 3.62         | -               |             | 3.33           | 2.00            | 4.46         |              |
|        | CV               | 2.56         | 2.20         | 4.57         | 4.28         | -               |             | 3.68           | 4.59            | 4.23         |              |

**Table 4.10.8. Pol % in cane and Fibre % in cane at harvest**

| S. No. | Entry            | Pol % in cane |              |                 |                | Fibre % in cane at harvest |              |              |                 |                |              |
|--------|------------------|---------------|--------------|-----------------|----------------|----------------------------|--------------|--------------|-----------------|----------------|--------------|
|        |                  | Kapurthala    | Lucknow      | Muzaffar -nagar | Shahja -hanpur | Mean                       | Kapurthala   | Lucknow      | Muzaffar -nagar | Shahja -hanpur | Mean         |
| 1      | Co 17018         | 13.61         | 15.59        | 14.16           | 14.80          | 14.54                      | 13.52        | 13.98        | 13.68           | 14.65          | 13.96        |
| 2      | CoLk 17204       | 14.54         | 14.47        | 13.69           | 14.14          | 14.21                      | 14.46        | 13.41        | 13.55           | 14.29          | 13.93        |
| 3      | CoLk 17205       | 13.22         | 12.89        | 12.91           | 13.83          | 13.21                      | 15.82        | 13.99        | 13.86           | 14.75          | 14.61        |
| 4      | CoPb 17213       | 13.86         | 14.77        | 14.02           | 14.54          | 14.30                      | 16.16        | 12.91        | 13.96           | 14.67          | 14.43        |
| 5      | CoPb 17214       | 13.01         | 15.33        | 13.61           | 14.22          | 14.04                      | 15.30        | 13.84        | 14.12           | 14.57          | 14.46        |
| 6      | CoPb 17215       | 13.44         | 13.58        | 13.59           | 14.40          | 13.75                      | 14.81        | 14.02        | 13.76           | 14.77          | 14.34        |
| 7      | CoPant 17223     | 12.73         | 14.08        | 13.23           | 14.35          | 13.60                      | 14.27        | 13.63        | 13.61           | 14.33          | 13.96        |
| 8      | CoPant 17224     | 11.68         | 13.84        | 12.84           | 12.31          | 12.67                      | 14.20        | 13.72        | 14.06           | 14.45          | 14.11        |
| 9      | CoS 17233        | 13.12         | 14.99        | 14.73           | 14.50          | 14.34                      | 15.01        | 14.22        | 13.52           | 14.37          | 14.28        |
| 10     | CoS 17234        | 13.55         | 14.48        | 14.63           | 14.30          | 14.24                      | 14.63        | 14.14        | 13.80           | 14.66          | 14.31        |
| 11     | CoS 17235        | 13.13         | 15.28        | 13.87           | 14.84          | 14.28                      | 14.57        | 14.64        | 13.65           | 14.69          | 14.39        |
| 12     | CoS 17236        | 12.38         | 13.57        | 14.31           | 14.59          | 13.71                      | 13.63        | 13.79        | 13.42           | 14.61          | 13.86        |
| 13     | CoS 17237        | 13.49         | 12.46        | 14.62           | 14.46          | 13.76                      | 13.33        | 13.60        | 13.34           | 14.66          | 13.73        |
| 14     | CoH 17261        | 13.15         | 13.87        | 13.58           | 14.47          | 13.77                      | 12.53        | 13.96        | 13.90           | 14.55          | 13.73        |
| 15     | CoH 17262        | 13.52         | 13.91        | 13.91           | 14.88          | 14.05                      | 12.73        | 13.89        | 13.46           | 14.41          | 13.62        |
|        | <b>Standards</b> |               |              |                 |                |                            |              |              |                 |                |              |
| 1      | CoS 767          | 14.16         | 13.92        | 13.88           | 14.18          | 14.04                      | 14.74        | 13.75        | 13.74           | 14.35          | 14.14        |
| 2      | CoPant 97222     | 13.87         | 15.43        | 13.75           | 14.77          | 14.46                      | 14.39        | 13.72        | 13.90           | 14.47          | 14.12        |
| 3      | Co 05011         | 13.52         | 14.93        | 13.95           | 14.74          | 14.29                      | 12.98        | 12.99        | 13.61           | 14.59          | 13.54        |
|        | <b>Mean</b>      | <b>13.33</b>  | <b>14.30</b> | <b>13.85</b>    | <b>14.35</b>   | <b>13.99</b>               | <b>14.28</b> | <b>13.79</b> | <b>13.72</b>    | <b>14.55</b>   | <b>14.08</b> |
|        | SE (m)           | 0.14          | 0.63         | -               | 0.27           |                            | 0.21         | 0.72         | -               | 0.13           |              |
|        | CD at 5%         | 0.40          | 1.27         | -               | 0.77           |                            | 0.59         | NS           | -               | NS             |              |
|        | CV               | 1.82          | 5.36         |                 | 3.22           |                            | 2.50         | 6.36         | -               | 1.54           |              |

**Table 4.10.9. Number of millable canes ( '000/ha) at harvest**

| S. No. | Entry            | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani        | Mean          |
|--------|------------------|--------------|--------------|--------------|--------------|-----------------|--------------|----------------|-----------------|---------------|---------------|
| 1      | Co 17018         | 84.88        | 79.52        | 89.81        | 72.22        | 80.55           | 63.33        | 93.52          | 141.69          | 100.22        | <b>89.53</b>  |
| 2      | CoLk 17204       | 113.43       | 97.33        | 97.04        | 96.40        | 104.62          | 57.67        | 93.89          | 126.17          | 113.00        | <b>99.95</b>  |
| 3      | CoLk 17205       | 101.70       | 88.08        | 91.48        | 93.42        | 92.96           | 56.00        | 88.89          | 119.87          | 103.53        | <b>92.88</b>  |
| 4      | CoPb 17213       | 111.88       | 94.34        | 109.63       | 99.79        | 110.18          | 68.67        | 85.74          | 106.29          | 95.56         | <b>98.01</b>  |
| 5      | CoPb 17214       | 126.39       | 106.60       | 64.44        | 116.15       | 99.07           | 91.00        | 104.07         | 112.55          | 113.10        | <b>103.71</b> |
| 6      | CoPb 17215       | 84.57        | 83.72        | 91.67        | 86.83        | 92.03           | 55.00        | 96.48          | 130.28          | 100.54        | <b>91.24</b>  |
| 7      | CoPant 17223     | 107.25       | 98.94        | 100.56       | 103.91       | 104.44          | 71.33        | 100.56         | 113.04          | 104.21        | <b>100.47</b> |
| 8      | CoPant 17224     | 113.73       | 100.26       | 65.00        | 102.98       | 112.77          | 69.67        | 103.52         | 110.91          | 104.71        | <b>98.17</b>  |
| 9      | CoS 17233        | 87.81        | 81.26        | 72.78        | 110.49       | 103.70          | 65.00        | 101.11         | 114.46          | 96.26         | <b>92.54</b>  |
| 10     | CoS 17234        | 75.46        | 90.68        | 103.52       | 77.88        | 95.55           | 75.00        | 97.59          | 108.83          | 87.11         | <b>90.18</b>  |
| 11     | CoS 17235        | 89.04        | 100.91       | 109.44       | 98.56        | 90.74           | 67.00        | 94.63          | 100.72          | 95.16         | <b>94.02</b>  |
| 12     | CoS 17236        | 83.49        | 85.21        | 75.74        | 65.74        | 84.81           | 60.67        | 95.56          | 103.58          | 92.07         | <b>82.99</b>  |
| 13     | CoS 17237        | 117.44       | 79.93        | 80.56        | 76.44        | 101.48          | 74.33        | 91.48          | 107.44          | 85.97         | <b>90.56</b>  |
| 14     | CoH 17261        | 98.61        | 87.31        | 59.07        | 72.94        | 101.85          | 56.33        | 99.63          | 133.49          | 102.12        | <b>90.15</b>  |
| 15     | CoH 17262        | 71.91        | 71.89        | 85.74        | 65.74        | 88.14           | 55.33        | 91.30          | 100.54          | 111.74        | <b>82.48</b>  |
|        | <b>Standards</b> |              |              |              |              |                 |              |                |                 |               |               |
| 1      | CoS 767          | 101.23       | 97.81        | 75.37        | 84.98        | 113.14          | 71.00        | 103.15         | 111.00          | 101.76        | <b>95.49</b>  |
| 2      | CoPant 97222     | 83.95        | 72.20        | 99.81        | 97.43        | 91.85           | 58.00        | 86.30          | 115.70          | 115.57        | <b>91.20</b>  |
| 3      | Co 05011         | 101.70       | 82.78        | 89.81        | 99.49        | 98.14           | 70.33        | 90.19          | 115.87          | 92.61         | <b>93.44</b>  |
|        | <b>Mean</b>      | <b>96.90</b> | <b>88.82</b> | <b>86.75</b> | <b>90.08</b> | <b>98.11</b>    | <b>65.87</b> | <b>95.42</b>   | <b>115.14</b>   | <b>100.85</b> | <b>93.10</b>  |
|        | SE (m)           | 5.98         | 2.50         | 7.40         | 3.34         | 4.00            | 2.10         | 3.52           | 2.70            | 4.69          |               |
|        | CD at 5%         | 17.27        | 7.17         | 17.16        | 6.78         | 8.12            | 6.06         | 10.12          | 8.10            | 13.54         |               |
|        | CV               | 10.69        | 4.87         | 14.78        | 4.54         | 8.98            | 5.52         | 6.39           | 4.33            | 8.05          |               |

**Table 4.10.10 Stalk length (cm) at harvest**

| S. No. | Entry            | Faridkot      | Kapurthala    | Kota          | Lucknow       | Muzaffar -nagar | Pant -nagar   | Shahja -hanpur | Sriganga -nagar | Uchani        | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|-----------------|---------------|----------------|-----------------|---------------|---------------|
| 1      | Co 17018         | 233.66        | 216.90        | 180.00        | 183.47        | 232.00          | 264.00        | 245.67         | 211.00          | 245.67        | <b>223.60</b> |
| 2      | CoLk 17204       | 219.22        | 212.60        | 210.00        | 191.00        | 157.00          | 242.00        | 237.07         | 191.00          | 237.07        | <b>210.77</b> |
| 3      | CoLk 17205       | 208.55        | 238.70        | 220.00        | 146.47        | 212.00          | 263.00        | 206.00         | 225.00          | 206.00        | <b>213.97</b> |
| 4      | CoPb 17213       | 235.00        | 211.90        | 215.00        | 189.40        | 187.00          | 241.00        | 210.53         | 231.00          | 210.53        | <b>214.60</b> |
| 5      | CoPb 17214       | 307.22        | 255.40        | 247.00        | 200.40        | 275.00          | 271.00        | 253.00         | 218.00          | 253.00        | <b>253.34</b> |
| 6      | CoPb 17215       | 287.22        | 272.60        | 203.00        | 182.20        | 226.00          | 320.00        | 269.87         | 192.00          | 269.87        | <b>246.97</b> |
| 7      | CoPant 17223     | 230.44        | 221.90        | 177.00        | 170.00        | 186.00          | 301.00        | 245.67         | 249.00          | 245.67        | <b>225.19</b> |
| 8      | CoPant 17224     | 245.33        | 232.10        | 190.00        | 185.80        | 195.00          | 265.00        | 264.80         | 233.00          | 264.80        | <b>230.65</b> |
| 9      | CoS 17233        | 197.11        | 189.60        | 182.00        | 154.87        | 192.00          | 282.00        | 239.13         | 239.00          | 239.13        | <b>212.76</b> |
| 10     | CoS 17234        | 196.44        | 231.10        | 237.00        | 124.56        | 178.00          | 294.00        | 238.07         | 236.00          | 238.07        | <b>219.25</b> |
| 11     | CoS 17235        | 233.33        | 203.40        | 253.00        | 177.33        | 206.00          | 267.00        | 222.07         | 237.00          | 222.07        | <b>224.58</b> |
| 12     | CoS 17236        | 258.66        | 244.20        | 178.00        | 189.80        | 199.00          | 313.00        | 256.47         | 226.00          | 256.47        | <b>235.73</b> |
| 13     | CoS 17237        | 207.77        | 227.10        | 195.00        | 133.53        | 175.00          | 213.00        | 213.00         | 197.00          | 213.00        | <b>197.16</b> |
| 14     | CoH 17261        | 175.22        | 193.90        | 183.00        | 157.89        | 168.00          | 268.00        | 225.47         | 168.00          | 225.47        | <b>196.11</b> |
| 15     | CoH 17262        | 182.44        | 197.40        | 237.00        | 128.67        | 174.00          | 182.00        | 216.87         | 181.00          | 216.87        | <b>190.69</b> |
|        | <b>Standards</b> |               |               |               |               |                 |               |                |                 |               |               |
| 1      | CoS 767          | 194.33        | 213.90        | 173.00        | 169.67        | 194.00          | 274.00        | 216.87         | 219.00          | 216.87        | <b>207.96</b> |
| 2      | CoPant 97222     | 196.00        | 203.00        | 180.00        | 177.00        | 203.00          | 265.00        | 211.07         | 281.00          | 211.07        | <b>214.13</b> |
| 3      | Co 05011         | 194.77        | 210.00        | 170.00        | 159.00        | 172.00          | 231.00        | 205.27         | 215.00          | 205.27        | <b>195.81</b> |
|        | <b>Mean</b>      | <b>222.45</b> | <b>220.90</b> | <b>201.67</b> | <b>167.84</b> | <b>196.00</b>   | <b>264.00</b> | <b>232.05</b>  | <b>219.00</b>   | <b>232.05</b> | <b>217.33</b> |
|        | SE (m)           | 11.01         | 5.12          | 9.05          | 8.67          | 10.00           | 11.00         | 6.76           | 0.20            | 6.76          |               |
|        | CD at 5%         | 31.80         | 14.71         | 20.99         | 17.60         | 19.00           | 31.00         | 19.44          | 0.07            | 19.44         |               |
|        | CV               | 8.57          | 4.01          | 7.77          | 6.33          | 5.97            | 6.95          | 5.05           | 1.66            | 5.05          |               |

**Table 4.10.11 Stalk diameter (cm) at harvest**

| S. No. | Entry            | Faridkot    | Kapurthala  | Kota        | Lucknow     | Muzaffar-nagar | Pant-nagar  | Shahja-hanpur | Sriganga-nagar | Uchani      | Mean        |
|--------|------------------|-------------|-------------|-------------|-------------|----------------|-------------|---------------|----------------|-------------|-------------|
| 1      | Co 17018         | 2.45        | 2.39        | 1.80        | 2.62        | 2.66           | 2.62        | 2.36          | 2.31           | 2.44        | 2.41        |
| 2      | CoLk 17204       | 2.44        | 2.29        | 2.20        | 2.07        | 1.92           | 2.23        | 2.01          | 2.51           | 1.90        | 2.17        |
| 3      | CoLk 17205       | 2.50        | 2.43        | 2.17        | 2.15        | 2.34           | 2.35        | 2.19          | 2.27           | 2.25        | 2.29        |
| 4      | CoPb 17213       | 2.58        | 2.38        | 2.47        | 2.40        | 2.26           | 2.19        | 2.19          | 2.40           | 2.34        | 2.36        |
| 5      | CoPb 17214       | 2.56        | 2.41        | 2.50        | 2.35        | 2.32           | 2.61        | 2.23          | 2.31           | 2.14        | 2.38        |
| 6      | CoPb 17215       | 2.83        | 2.36        | 2.43        | 2.35        | 2.62           | 2.63        | 2.27          | 2.47           | 2.10        | 2.45        |
| 7      | CoPant 17223     | 2.75        | 2.38        | 2.57        | 2.71        | 3.16           | 2.68        | 2.27          | 2.23           | 2.40        | 2.57        |
| 8      | CoPant 17224     | 2.54        | 2.34        | 2.72        | 2.48        | 2.28           | 2.46        | 2.31          | 2.27           | 2.38        | 2.42        |
| 9      | CoS 17233        | 2.63        | 2.63        | 2.73        | 2.74        | 2.42           | 3.08        | 2.33          | 2.26           | 2.62        | 2.60        |
| 10     | CoS 17234        | 2.87        | 2.54        | 2.75        | 2.40        | 2.90           | 2.77        | 2.37          | 2.32           | 2.48        | 2.60        |
| 11     | CoS 17235        | 2.88        | 2.55        | 2.83        | 2.69        | 2.66           | 2.49        | 2.31          | 2.43           | 2.50        | 2.59        |
| 12     | CoS 17236        | 3.03        | 2.57        | 2.87        | 2.81        | 2.92           | 2.75        | 2.33          | 2.41           | 2.52        | 2.69        |
| 13     | CoS 17237        | 2.59        | 2.43        | 2.30        | 2.76        | 2.38           | 2.57        | 2.29          | 2.22           | 2.64        | 2.46        |
| 14     | CoH 17261        | 2.67        | 2.43        | 2.57        | 2.72        | 2.28           | 2.40        | 2.29          | 2.25           | 2.46        | 2.45        |
| 15     | CoH 17262        | 2.80        | 2.35        | 2.70        | 2.69        | 3.04           | 2.81        | 2.28          | 2.19           | 2.42        | 2.59        |
|        | <b>Standards</b> |             |             |             |             |                |             |               |                |             |             |
| 1      | CoS 767          | 2.61        | 2.41        | 2.23        | 2.39        | 2.04           | 2.30        | 2.10          | 2.27           | 2.29        | 2.29        |
| 2      | CoPant 97222     | 2.64        | 2.34        | 2.13        | 2.57        | 2.46           | 2.86        | 2.24          | 2.40           | 2.02        | 2.41        |
| 3      | Co 05011         | 2.77        | 2.39        | 2.52        | 2.56        | 2.36           | 2.63        | 2.37          | 2.26           | 2.42        | 2.48        |
|        | <b>Mean</b>      | <b>2.67</b> | <b>2.42</b> | <b>2.47</b> | <b>2.53</b> | <b>2.45</b>    | <b>2.58</b> | <b>2.26</b>   | <b>2.32</b>    | <b>2.35</b> | <b>2.45</b> |
|        | SE (m)           | 0.05        | 0.16        | 0.10        | 0.12        | 0.13           | 0.06        | 0.03          | 0.11           | 0.05        |             |
|        | CD at 5%         | 0.14        | 0.14        | 0.24        | 0.24        | 0.26           | 0.16        | 0.09          | 0.34           | 0.16        |             |
|        | CV               | 3.06        | 3.59        | 7.33        | 5.67        | 6.44           | 3.67        | 2.45          | 6.62           | 4.30        |             |

**Table 4.10.12 Single cane weight (kg) at harvest**

| S. No. | Entry            | Faridkot    | Kapurthala  | Kota        | Lucknow     | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Uchani      | Mean        |
|--------|------------------|-------------|-------------|-------------|-------------|-----------------|-------------|----------------|-----------------|-------------|-------------|
| 1      | Co 17018         | 1.25        | 1.25        | 1.10        | 0.91        | 1.31            | 1.83        | 1.08           | 0.96            | 1.10        | 1.20        |
| 2      | CoLk 17204       | 0.91        | 0.85        | 0.83        | 0.94        | 0.67            | 1.11        | 0.70           | 1.06            | 0.74        | 0.87        |
| 3      | CoLk 17205       | 1.07        | 1.06        | 1.03        | 0.68        | 0.92            | 1.29        | 0.77           | 1.02            | 0.75        | 0.95        |
| 4      | CoPb 17213       | 1.12        | 1.00        | 1.06        | 0.86        | 0.93            | 1.13        | 0.82           | 1.05            | 1.07        | 1.00        |
| 5      | CoPb 17214       | 1.39        | 1.21        | 1.15        | 0.85        | 1.19            | 1.77        | 1.01           | 1.16            | 0.98        | 1.19        |
| 6      | CoPb 17215       | 1.80        | 1.55        | 0.88        | 0.90        | 1.11            | 1.99        | 1.01           | 1.05            | 1.09        | 1.26        |
| 7      | CoPant 17223     | 1.31        | 1.17        | 0.92        | 0.93        | 0.95            | 1.97        | 0.81           | 1.10            | 1.16        | 1.15        |
| 8      | CoPant 17224     | 1.19        | 1.17        | 1.08        | 0.89        | 0.90            | 1.62        | 0.84           | 1.06            | 1.11        | 1.09        |
| 9      | CoS 17233        | 0.96        | 1.20        | 1.20        | 0.85        | 0.97            | 2.06        | 1.07           | 1.09            | 1.04        | 1.16        |
| 10     | CoS 17234        | 1.21        | 1.31        | 0.88        | 0.69        | 1.02            | 2.11        | 1.21           | 1.08            | 1.10        | 1.18        |
| 11     | CoS 17235        | 1.40        | 1.08        | 0.93        | 0.95        | 1.11            | 1.57        | 0.97           | 1.50            | 1.20        | 1.19        |
| 12     | CoS 17236        | 1.52        | 1.30        | 1.01        | 1.09        | 1.36            | 2.18        | 1.08           | 1.12            | 1.31        | 1.33        |
| 13     | CoS 17237        | 1.09        | 0.98        | 0.93        | 0.71        | 0.89            | 1.33        | 0.92           | 1.12            | 1.08        | 1.01        |
| 14     | CoH 17261        | 1.01        | 1.18        | 1.15        | 0.77        | 0.70            | 1.66        | 0.93           | 0.94            | 1.10        | 1.05        |
| 15     | CoH 17262        | 1.12        | 0.99        | 0.96        | 0.64        | 1.03            | 1.25        | 0.81           | 1.04            | 0.97        | 0.98        |
|        | <b>Standards</b> |             |             |             |             |                 |             |                |                 |             |             |
| 1      | CoS 767          | 0.87        | 1.25        | 0.95        | 0.73        | 0.76            | 1.43        | 0.79           | 1.17            | 0.97        | 0.99        |
| 2      | CoPant 97222     | 0.98        | 0.85        | 0.94        | 0.83        | 0.98            | 1.93        | 0.92           | 1.24            | 0.87        | 1.06        |
| 3      | Co 05011         | 1.07        | 1.06        | 0.96        | 0.77        | 0.88            | 1.53        | 1.05           | 1.09            | 1.11        | 1.06        |
|        | <b>Mean</b>      | <b>1.19</b> | <b>1.00</b> | <b>1.00</b> | <b>0.83</b> | <b>0.98</b>     | <b>1.65</b> | <b>0.93</b>    | <b>1.10</b>     | <b>1.05</b> | <b>1.08</b> |
|        | SE (m)           | 0.06        | 0.14        | 0.04        | 0.05        | 0.04            | 0.06        | 0.06           | 0.10            | 0.02        |             |
|        | CD at 5%         | 0.17        | 0.13        | 0.10        | 0.09        | 0.08            | 0.16        | 0.17           | 0.29            | 0.07        |             |
|        | CV               | 8.65        | 6.79        | 7.71        | 6.73        | 5.21            | 5.91        | 10.90          | 2.71            | 4.08        |             |



**Table 4.10.13 CCS (%) at 10<sup>th</sup> month**

| S. No. | Entry            | Faridkot     | Kapurthala   | Kota        | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|-------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 17018         | 11.66        | 11.51        | 9.33        | 10.96        | 10.49          | 11.64        | 11.57         | 8.64           | 11.05        | <b>10.76</b> |
| 2      | CoLk 17204       | 11.68        | 11.11        | 10.25       | 10.61        | 11.38          | 11.08        | 11.45         | 9.62           | 9.88         | <b>10.78</b> |
| 3      | CoLk 17205       | 10.88        | 11.32        | 9.49        | 8.99         | 11.27          | 9.92         | 9.74          | 9.03           | 10.36        | <b>10.11</b> |
| 4      | CoPb 17213       | 11.46        | 11.64        | 7.74        | 9.18         | 11.31          | 10.36        | 10.79         | 8.91           | 10.94        | <b>10.26</b> |
| 5      | CoPb 17214       | 8.93         | 10.53        | 6.95        | 10.47        | 10.76          | 10.44        | 10.60         | 9.39           | 10.14        | <b>9.80</b>  |
| 6      | CoPb 17215       | 9.40         | 10.27        | 9.00        | 10.16        | 10.24          | 10.22        | 11.24         | 9.67           | 10.97        | <b>10.13</b> |
| 7      | CoPant 17223     | 9.40         | 9.70         | 6.72        | 9.46         | 10.36          | 10.74        | 10.85         | 9.03           | 9.70         | <b>9.55</b>  |
| 8      | CoPant 17224     | 7.13         | 7.75         | 7.74        | 9.62         | 8.39           | 9.83         | 8.99          | 8.97           | 9.21         | <b>8.63</b>  |
| 9      | CoS 17233        | 11.98        | 10.55        | 9.77        | 10.63        | 11.04          | 10.37        | 11.60         | 8.28           | 10.61        | <b>10.54</b> |
| 10     | CoS 17234        | 10.56        | 10.73        | 8.60        | 10.53        | 11.03          | 9.96         | 11.00         | 8.51           | 10.62        | <b>10.17</b> |
| 11     | CoS 17235        | 9.77         | 9.67         | 10.05       | 10.55        | 10.93          | 9.96         | 10.89         | 9.23           | 8.94         | <b>10.00</b> |
| 12     | CoS 17236        | 9.45         | 9.83         | 7.81        | 10.02        | 11.44          | 10.84        | 10.71         | 9.26           | 9.68         | <b>9.89</b>  |
| 13     | CoS 17237        | 9.22         | 10.83        | 9.11        | 9.11         | 10.67          | 10.17        | 11.67         | 9.33           | 11.05        | <b>10.13</b> |
| 14     | CoH 17261        | 11.71        | 11.06        | 10.32       | 10.45        | 10.62          | 10.99        | 11.44         | 9.47           | 11.12        | <b>10.80</b> |
| 15     | CoH 17262        | 12.72        | 12.07        | 7.05        | 10.23        | 10.90          | 9.70         | 12.07         | 9.04           | 11.18        | <b>10.55</b> |
|        | <b>Standards</b> |              |              |             |              |                |              |               |                |              |              |
| 1      | CoS 767          | 11.52        | 10.89        | 9.06        | 10.20        | 10.80          | 10.86        | 11.61         | 9.12           | 9.85         | <b>10.43</b> |
| 2      | CoPant 97222     | 10.39        | 11.06        | 9.56        | 10.64        | 10.78          | 10.72        | 11.29         | 9.69           | 10.17        | <b>10.48</b> |
| 3      | Co 05011         | 10.86        | 10.63        | 10.91       | 11.22        | 10.67          | 11.12        | 11.16         | 8.76           | 10.51        | <b>10.65</b> |
|        | <b>Mean</b>      | <b>10.63</b> | <b>10.62</b> | <b>8.86</b> | <b>10.17</b> | <b>10.73</b>   | <b>10.50</b> | <b>11.04</b>  | <b>9.11</b>    | <b>10.33</b> | <b>10.22</b> |
|        | SE (m)           | 0.17         | 0.31         | 0.66        | 0.60         | 0.26           | 0.17         | 0.24          | 0.21           | 0.22         |              |
|        | CD at 5%         | 0.49         | 0.88         | 1.53        | NS           | 0.54           | 0.50         | 0.69          | 0.63           | 0.63         |              |
|        | CV               | 2.78         | 5.00         | 12.91       | 7.27         | 3.03           | 2.87         | 3.75          | 4.16           | 3.70         |              |

**Table 4.10.14 Sucrose (%) at 10<sup>th</sup> month**

| S. No. | Entry            | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|-----------------|--------------|----------------|-----------------|--------------|--------------|
| 1      | Co 17018         | 16.71        | 16.30        | 13.85        | 15.97        | 15.40           | 17.06        | 16.96          | 12.98           | 16.16        | 15.71        |
| 2      | CoLk 17204       | 16.88        | 15.99        | 15.09        | 15.46        | 16.61           | 16.46        | 16.79          | 14.07           | 14.65        | 15.78        |
| 3      | CoLk 17205       | 15.70        | 16.17        | 14.05        | 13.24        | 16.51           | 14.80        | 14.76          | 13.36           | 15.30        | 14.88        |
| 4      | CoPb 17213       | 16.48        | 16.56        | 11.68        | 13.48        | 16.56           | 15.35        | 15.96          | 13.05           | 16.07        | 15.02        |
| 5      | CoPb 17214       | 13.07        | 15.13        | 10.62        | 15.62        | 15.87           | 15.43        | 15.68          | 13.67           | 15.01        | 14.46        |
| 6      | CoPb 17215       | 13.73        | 14.69        | 13.40        | 14.89        | 15.09           | 15.19        | 16.53          | 14.04           | 15.99        | 14.84        |
| 7      | CoPant 17223     | 13.72        | 14.15        | 10.31        | 13.91        | 15.22           | 15.94        | 16.01          | 13.20           | 14.24        | 14.08        |
| 8      | CoPant 17224     | 10.91        | 11.73        | 11.68        | 14.14        | 12.83           | 14.65        | 13.45          | 13.29           | 13.58        | 12.92        |
| 9      | CoS 17233        | 17.19        | 15.19        | 14.43        | 15.46        | 16.11           | 15.49        | 17.01          | 12.30           | 15.58        | 15.42        |
| 10     | CoS 17234        | 15.26        | 15.38        | 12.85        | 15.30        | 16.15           | 14.87        | 16.22          | 12.80           | 15.48        | 14.92        |
| 11     | CoS 17235        | 14.29        | 14.18        | 14.81        | 15.35        | 16.00           | 14.88        | 16.05          | 13.51           | 13.33        | 14.71        |
| 12     | CoS 17236        | 13.78        | 14.37        | 11.79        | 14.75        | 16.78           | 15.96        | 15.79          | 13.84           | 14.38        | 14.60        |
| 13     | CoS 17237        | 13.60        | 15.51        | 13.54        | 13.71        | 15.70           | 15.17        | 17.13          | 13.93           | 16.22        | 14.95        |
| 14     | CoH 17261        | 16.67        | 15.75        | 15.19        | 15.21        | 15.64           | 16.25        | 16.79          | 13.93           | 16.20        | 15.74        |
| 15     | CoH 17262        | 18.07        | 17.14        | 10.76        | 14.83        | 15.99           | 14.35        | 17.58          | 13.48           | 16.29        | 15.39        |
|        | <b>Standards</b> |              |              |              |              |                 |              |                |                 |              |              |
| 1      | CoS 767          | 16.52        | 15.66        | 13.47        | 15.07        | 15.83           | 16.09        | 17.02          | 13.76           | 14.51        | 15.33        |
| 2      | CoPant 97222     | 15.10        | 15.77        | 14.16        | 15.41        | 15.81           | 15.87        | 16.57          | 14.05           | 14.94        | 15.30        |
| 3      | Co 05011         | 15.68        | 15.20        | 15.98        | 16.27        | 15.57           | 16.40        | 16.41          | 13.14           | 15.33        | 15.55        |
|        | <b>Mean</b>      | <b>15.38</b> | <b>15.27</b> | <b>13.20</b> | <b>14.89</b> | <b>15.76</b>    | <b>15.57</b> | <b>16.26</b>   | <b>13.47</b>    | <b>15.18</b> | <b>15.00</b> |
|        | SE (m)           | 0.23         | 0.36         | 0.89         | 0.77         | 0.35            | 0.21         | 0.32           | 0.20            | 0.28         |              |
|        | CD at 5%         | 0.68         | 1.03         | 2.07         | 1.57         | 0.71            | 0.62         | 0.92           | 0.60            | 0.81         |              |
|        | CV               | 2.63         | 4.08         | 11.72        | 6.37         | 2.73            | 2.38         | 3.42           | 2.46            | 3.20         |              |

**Table 4.10.15 Brix (%) at 10<sup>th</sup> month**

| S. No. | Entry            | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 17018         | 18.57        | 17.63        | 16.50        | 18.36        | 17.97          | 19.87        | 19.74         | 15.83          | 18.70        | <b>18.13</b> |
| 2      | CoLk 17204       | 19.10        | 17.90        | 17.70        | 17.76        | 19.15          | 19.67        | 19.57         | 16.32          | 17.43        | <b>18.29</b> |
| 3      | CoLk 17205       | 17.70        | 17.83        | 16.70        | 15.53        | 19.19          | 17.83        | 18.29         | 15.85          | 18.03        | <b>17.44</b> |
| 4      | CoPb 17213       | 18.43        | 18.10        | 14.40        | 15.75        | 19.22          | 18.23        | 18.90         | 15.15          | 18.76        | <b>17.44</b> |
| 5      | CoPb 17214       | 15.17        | 16.90        | 13.37        | 18.84        | 18.45          | 18.23        | 18.59         | 15.69          | 17.76        | <b>17.00</b> |
| 6      | CoPb 17215       | 15.87        | 16.23        | 16.07        | 17.34        | 17.75          | 18.13        | 19.37         | 16.01          | 18.40        | <b>17.24</b> |
| 7      | CoPant 17223     | 15.83        | 16.30        | 13.07        | 16.30        | 17.75          | 19.00        | 18.88         | 15.28          | 16.60        | <b>16.56</b> |
| 8      | CoPant 17224     | 13.77        | 14.52        | 14.40        | 16.56        | 16.15          | 17.60        | 16.30         | 15.78          | 15.96        | <b>15.67</b> |
| 9      | CoS 17233        | 19.13        | 17.03        | 17.07        | 17.69        | 18.55          | 18.70        | 19.80         | 14.68          | 18.20        | <b>17.87</b> |
| 10     | CoS 17234        | 17.23        | 17.10        | 15.54        | 17.50        | 18.75          | 17.93        | 19.10         | 15.65          | 17.83        | <b>17.40</b> |
| 11     | CoS 17235        | 16.53        | 16.50        | 17.44        | 17.59        | 18.55          | 17.97        | 18.91         | 15.67          | 16.03        | <b>17.24</b> |
| 12     | CoS 17236        | 15.87        | 16.63        | 14.50        | 17.30        | 19.52          | 18.73        | 18.60         | 16.74          | 17.16        | <b>17.23</b> |
| 13     | CoS 17237        | 16.00        | 17.20        | 16.20        | 16.80        | 18.42          | 18.27        | 20.01         | 16.82          | 18.93        | <b>17.63</b> |
| 14     | CoH 17261        | 18.23        | 17.27        | 17.80        | 17.44        | 18.35          | 19.23        | 19.59         | 16.31          | 18.63        | <b>18.09</b> |
| 15     | CoH 17262        | 19.70        | 18.63        | 13.50        | 16.86        | 18.62          | 17.03        | 20.20         | 16.22          | 18.70        | <b>17.72</b> |
|        | <b>Standards</b> |              |              |              |              |                |              |               |                |              |              |
| 1      | CoS 767          | 18.37        | 17.53        | 16.14        | 17.81        | 18.42          | 19.10        | 19.81         | 16.93          | 17.03        | <b>17.90</b> |
| 2      | CoPant 97222     | 17.27        | 17.30        | 16.80        | 17.49        | 18.42          | 18.83        | 19.34         | 15.99          | 17.46        | <b>17.66</b> |
| 3      | Co 05011         | 17.70        | 16.80        | 18.57        | 18.52        | 17.95          | 19.33        | 19.22         | 16.00          | 17.66        | <b>17.97</b> |
|        | <b>Mean</b>      | <b>17.43</b> | <b>17.08</b> | <b>15.88</b> | <b>17.30</b> | <b>18.40</b>   | <b>18.54</b> | <b>19.12</b>  | <b>15.94</b>   | <b>17.74</b> | <b>17.49</b> |
|        | SE (m)           | 0.25         | 0.32         | 0.87         | 0.76         | 0.41           | 0.20         | 0.33          | 0.24           | 0.28         |              |
|        | CD at 5%         | 0.72         | 0.90         | 2.01         | 1.54         | 0.82           | 0.58         | 0.95          | 0.73           | 0.81         |              |
|        | CV               | 2.49         | 3.19         | 9.45         | 5.36         | 2.70           | 1.86         | 2.99          | 2.35           | 2.76         |              |

**Table 4.10.16 Purity (%) at 10<sup>th</sup> month**

| S. No. | Entry            | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 17018         | 90.02        | 92.48        | 83.90        | 86.98        | 85.69          | 85.92        | 85.90         | 82.00          | 86.09        | <b>86.55</b> |
| 2      | CoLk 17204       | 88.39        | 89.33        | 85.19        | 87.06        | 86.71          | 83.70        | 85.80         | 86.25          | 84.00        | <b>86.27</b> |
| 3      | CoLk 17205       | 88.70        | 90.65        | 84.14        | 85.26        | 86.05          | 83.00        | 80.80         | 84.29          | 84.80        | <b>85.30</b> |
| 4      | CoPb 17213       | 89.40        | 91.48        | 81.10        | 85.63        | 86.15          | 84.19        | 84.38         | 86.15          | 85.64        | <b>86.01</b> |
| 5      | CoPb 17214       | 86.20        | 89.55        | 73.32        | 82.84        | 86.01          | 84.60        | 84.37         | 87.13          | 84.48        | <b>84.28</b> |
| 6      | CoPb 17215       | 86.56        | 90.48        | 83.40        | 85.91        | 84.97          | 83.76        | 85.32         | 87.66          | 86.91        | <b>86.11</b> |
| 7      | CoPant 17223     | 86.66        | 86.72        | 78.88        | 85.35        | 85.74          | 83.89        | 84.82         | 86.39          | 85.75        | <b>84.91</b> |
| 8      | CoPant 17224     | 79.28        | 80.94        | 81.11        | 82.84        | 79.46          | 83.23        | 82.52         | 84.22          | 85.01        | <b>82.07</b> |
| 9      | CoS 17233        | 89.86        | 89.20        | 84.54        | 87.20        | 86.80          | 82.80        | 85.89         | 83.79          | 85.59        | <b>86.19</b> |
| 10     | CoS 17234        | 88.53        | 89.93        | 82.72        | 87.47        | 86.10          | 82.90        | 84.93         | 81.79          | 86.84        | <b>85.69</b> |
| 11     | CoS 17235        | 86.41        | 85.94        | 84.93        | 87.37        | 86.24          | 82.83        | 84.90         | 86.22          | 83.16        | <b>85.33</b> |
| 12     | CoS 17236        | 86.84        | 86.41        | 81.27        | 85.28        | 85.76          | 85.19        | 84.89         | 82.68          | 83.75        | <b>84.67</b> |
| 13     | CoS 17237        | 84.97        | 90.20        | 83.51        | 82.86        | 85.27          | 83.07        | 85.62         | 82.82          | 85.96        | <b>84.92</b> |
| 14     | CoH 17261        | 91.43        | 91.23        | 85.29        | 87.21        | 85.18          | 84.50        | 85.69         | 85.41          | 86.87        | <b>86.98</b> |
| 15     | CoH 17262        | 91.73        | 92.00        | 79.63        | 87.87        | 86.07          | 84.27        | 87.03         | 83.11          | 87.11        | <b>86.54</b> |
|        | <b>Standards</b> |              |              |              |              |                |              |               |                |              |              |
| 1      | CoS 767          | 89.96        | 89.35        | 83.48        | 84.69        | 85.93          | 84.22        | 85.92         | 81.28          | 85.19        | <b>85.56</b> |
| 2      | CoPant 97222     | 87.46        | 91.11        | 84.25        | 88.17        | 85.83          | 84.26        | 85.68         | 87.87          | 85.53        | <b>86.68</b> |
| 3      | Co 05011         | 88.63        | 90.47        | 86.04        | 87.84        | 86.75          | 84.84        | 85.38         | 82.13          | 86.78        | <b>86.54</b> |
|        | <b>Mean</b>      | <b>88.04</b> | <b>89.30</b> | <b>82.59</b> | <b>85.99</b> | <b>85.59</b>   | <b>83.95</b> | <b>84.99</b>  | <b>84.51</b>   | <b>85.53</b> | <b>85.61</b> |
|        | SE (m)           | 0.40         | 1.45         | 2.62         | 2.66         | 1.00           | 0.68         | 0.56          | 1.52           | 0.81         |              |
|        | CD at 5%         | 1.14         | 4.18         | 6.09         | 5.40         | 2.03           | N/A          | 1.60          | 4.57           | 2.34         |              |
|        | CV               | 0.78         | 2.82         | 5.50         | 3.79         | 1.43           | 1.41         | 1.13          | 3.06           | 1.64         |              |

**Table 4.10.17 Number of shoots ( '000/ha) at 240 DAP**

| S. No. | Entry            | Faridkot      | Kapurthala   | Kota         | Lucknow      | Muzaffar -nagar | Pant -nagar | Shahja -hanpur | Sriganga -nagar | Uchani        | Mean          |
|--------|------------------|---------------|--------------|--------------|--------------|-----------------|-------------|----------------|-----------------|---------------|---------------|
| 1      | Co 17018         | 94.14         | 81.47        | 100.74       | 75.62        |                 |             |                |                 | 111.97        | <b>92.79</b>  |
| 2      | CoLk 17204       | 123.77        | 101.53       | 101.67       | 98.97        |                 |             |                |                 | 138.15        | <b>112.82</b> |
| 3      | CoLk 17205       | 106.79        | 90.97        | 99.63        | 95.37        |                 |             |                |                 | 119.63        | <b>102.48</b> |
| 4      | CoPb 17213       | 126.54        | 97.45        | 117.41       | 101.85       |                 |             |                |                 | 130.24        | <b>114.70</b> |
| 5      | CoPb 17214       | 141.98        | 106.45       | 69.07        | 118.00       |                 |             |                |                 | 127.96        | <b>112.69</b> |
| 6      | CoPb 17215       | 89.20         | 86.47        | 98.89        | 89.51        |                 |             |                |                 | 110.98        | <b>95.01</b>  |
| 7      | CoPant 17223     | 119.60        | 101.53       | 111.30       | 100.41       |                 |             |                |                 | 121.79        | <b>110.93</b> |
| 8      | CoPant 17224     | 121.76        | 103.56       | 73.33        | 106.28       |                 |             |                |                 | 131.05        | <b>107.20</b> |
| 9      | CoS 17233        | 96.45         | 84.93        | 83.52        | 114.61       |                 |             |                |                 | 112.22        | <b>98.35</b>  |
| 10     | CoS 17234        | 79.94         | 93.67        | 115.56       | 82.61        |                 |             |                |                 | 111.54        | <b>96.66</b>  |
| 11     | CoS 17235        | 100.62        | 104.23       | 117.04       | 102.06       |                 |             |                |                 | 109.44        | <b>106.68</b> |
| 12     | CoS 17236        | 94.14         | 88.01        | 85.37        | 69.14        |                 |             |                |                 | 110.18        | <b>89.37</b>  |
| 13     | CoS 17237        | 131.33        | 83.23        | 88.52        | 80.97        |                 |             |                |                 | 94.63         | <b>95.74</b>  |
| 14     | CoH 17261        | 108.33        | 90.18        | 66.85        | 78.40        |                 |             |                |                 | 118.15        | <b>92.38</b>  |
| 15     | CoH 17262        | 78.09         | 75.26        | 106.67       | 68.31        |                 |             |                |                 | 124.05        | <b>90.48</b>  |
|        | <b>Standards</b> |               |              |              |              |                 |             |                |                 |               |               |
| 1      | CoS 767          | 116.36        | 101.03       | 85.93        | 88.48        |                 |             |                |                 | 121.79        | <b>102.72</b> |
| 2      | CoPant 97222     | 94.91         | 74.58        | 114.44       | 99.28        |                 |             |                |                 | 130.18        | <b>102.68</b> |
| 3      | Co 05011         | 120.68        | 86.50        | 97.78        | 103.70       |                 |             |                |                 | 118.27        | <b>105.39</b> |
|        | <b>Mean</b>      | <b>107.29</b> | <b>91.72</b> | <b>96.32</b> | <b>92.98</b> |                 |             |                |                 | <b>119.01</b> | <b>101.46</b> |
|        | SE (m)           | 5.98          | 2.19         | 8.16         | 3.92         |                 |             |                |                 | 5.74          |               |
|        | CD at 5%         | 17.26         | 6.28         | 18.93        | 7.97         |                 |             |                |                 | 16.59         |               |
|        | CV               | 9.65          | 4.13         | 14.68        | 5.17         |                 |             |                |                 | 8.36          |               |

**Table 4.10.18 Number of tillers ( ` 000/ha) at 120 DAP**

| S. No. | Entry            | Faridkot      | Kapurthala   | Kota          | Lucknow      | Muzaffar -nagar | Pant -nagar  | Shahja -hanpur | Sriganga -nagar | Uchani        | Mean          |
|--------|------------------|---------------|--------------|---------------|--------------|-----------------|--------------|----------------|-----------------|---------------|---------------|
| 1      | Co 17018         | 113.12        | 85.70        | 123.52        | 81.79        | 155.92          | 76.00        | 175.74         | 179.95          | 131.05        | <b>124.75</b> |
| 2      | CoLk 17204       | 145.22        | 106.80       | 120.93        | 104.42       | 186.66          | 64.33        | 181.85         | 160.23          | 183.21        | <b>139.29</b> |
| 3      | CoLk 17205       | 116.98        | 96.03        | 122.41        | 99.59        | 171.11          | 62.67        | 184.81         | 152.23          | 151.72        | <b>128.62</b> |
| 4      | CoPb 17213       | 136.73        | 101.84       | 140.19        | 106.58       | 203.33          | 90.00        | 188.70         | 134.99          | 175.18        | <b>141.95</b> |
| 5      | CoPb 17214       | 186.27        | 112.98       | 89.63         | 121.60       | 194.44          | 108.67       | 186.48         | 142.94          | 147.71        | <b>143.41</b> |
| 6      | CoPb 17215       | 96.30         | 90.96        | 121.67        | 94.86        | 184.81          | 64.67        | 195.00         | 165.46          | 130.74        | <b>127.16</b> |
| 7      | CoPant 17223     | 143.06        | 106.46       | 134.07        | 104.01       | 190.92          | 91.33        | 201.30         | 143.57          | 138.15        | <b>139.21</b> |
| 8      | CoPant 17224     | 137.96        | 108.93       | 92.41         | 110.91       | 204.62          | 84.00        | 199.26         | 140.86          | 156.36        | <b>137.26</b> |
| 9      | CoS 17233        | 113.12        | 89.34        | 106.30        | 119.14       | 195.37          | 76.67        | 185.74         | 145.37          | 177.03        | <b>134.23</b> |
| 10     | CoS 17234        | 105.40        | 99.53        | 138.33        | 86.83        | 164.81          | 85.00        | 178.70         | 138.21          | 127.90        | <b>124.97</b> |
| 11     | CoS 17235        | 140.59        | 108.64       | 139.81        | 106.79       | 170.73          | 86.33        | 187.78         | 127.92          | 143.70        | <b>134.70</b> |
| 12     | CoS 17236        | 136.27        | 92.58        | 108.15        | 72.84        | 156.47          | 71.67        | 185.56         | 131.55          | 134.75        | <b>121.09</b> |
| 13     | CoS 17237        | 152.78        | 87.55        | 111.30        | 84.98        | 177.03          | 79.67        | 183.89         | 136.45          | 119.94        | <b>125.95</b> |
| 14     | CoH 17261        | 147.07        | 93.86        | 87.78         | 80.76        | 179.63          | 72.67        | 177.96         | 169.54          | 137.53        | <b>127.42</b> |
| 15     | CoH 17262        | 91.98         | 80.16        | 118.33        | 71.81        | 166.29          | 61.33        | 183.52         | 127.68          | 138.15        | <b>115.47</b> |
|        | <b>Standards</b> |               |              |               |              |                 |              |                |                 |               |               |
| 1      | CoS 767          | 127.78        | 105.94       | 108.70        | 91.77        | 192.77          | 87.67        | 202.04         | 140.97          | 148.94        | <b>134.06</b> |
| 2      | CoPant 97222     | 108.64        | 78.45        | 137.22        | 103.29       | 147.59          | 66.67        | 175.93         | 146.94          | 157.90        | <b>124.74</b> |
| 3      | Co 05011         | 132.87        | 91.99        | 120.56        | 106.38       | 182.40          | 79.33        | 173.15         | 147.15          | 172.10        | <b>133.99</b> |
|        | <b>Mean</b>      | <b>129.69</b> | <b>96.54</b> | <b>117.85</b> | <b>97.13</b> | <b>179.16</b>   | <b>78.26</b> | <b>185.97</b>  | <b>146.22</b>   | <b>148.45</b> | <b>131.03</b> |
|        | SE (m)           | 8.15          | 2.29         | 8.04          | 4.00         | 6.29            | 2.29         | 4.87           | 2.69            | 8.29          |               |
|        | CD at 5%         | 23.54         | 6.58         | 18.64         | 8.13         | 12.79           | 6.61         | 13.99          | 8.08            | 23.93         |               |
|        | CV               | 10.89         | 4.11         | 11.81         | 5.05         | 7.74            | 5.07         | 4.53           | 4.38            | 9.67          |               |

**Table 4.10.19 Germination (%) at 45 DAP**

| S. No. | Entry            | Faridkot     | Kapurthala   | Kota         | Lucknow      | Muzaffar-nagar | Pant-nagar   | Shahja-hanpur | Sriganga-nagar | Uchani       | Mean         |
|--------|------------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|--------------|
| 1      | Co 17018         | 30.86        | 55.32        | 46.71        | 30.09        | 38.06          | 29.94        | 47.08         | 46.03          | 59.35        | <b>42.60</b> |
| 2      | CoLk 17204       | 36.95        | 60.19        | 43.90        | 36.39        | 40.56          | 24.07        | 40.83         | 40.97          | 60.74        | <b>42.73</b> |
| 3      | CoLk 17205       | 38.32        | 48.03        | 42.59        | 33.52        | 41.94          | 27.39        | 47.78         | 38.82          | 46.85        | <b>40.58</b> |
| 4      | CoPb 17213       | 45.35        | 53.22        | 45.21        | 36.76        | 49.86          | 32.64        | 45.00         | 45.70          | 56.11        | <b>45.54</b> |
| 5      | CoPb 17214       | 42.35        | 45.37        | 45.42        | 40.00        | 57.50          | 45.45        | 48.89         | 44.33          | 57.50        | <b>47.42</b> |
| 6      | CoPb 17215       | 32.41        | 47.38        | 41.01        | 33.70        | 52.36          | 25.92        | 49.72         | 46.24          | 49.39        | <b>42.01</b> |
| 7      | CoPant 17223     | 29.06        | 46.88        | 42.37        | 37.22        | 44.30          | 36.42        | 52.92         | 41.37          | 53.56        | <b>42.68</b> |
| 8      | CoPant 17224     | 40.47        | 55.21        | 41.79        | 37.41        | 39.58          | 32.95        | 50.00         | 42.51          | 60.74        | <b>44.52</b> |
| 9      | CoS 17233        | 38.41        | 47.78        | 42.55        | 40.93        | 38.20          | 27.78        | 50.00         | 44.92          | 51.48        | <b>42.45</b> |
| 10     | CoS 17234        | 21.69        | 56.48        | 42.62        | 30.28        | 44.33          | 38.12        | 48.06         | 43.07          | 49.39        | <b>41.56</b> |
| 11     | CoS 17235        | 34.98        | 57.62        | 45.15        | 36.02        | 41.39          | 32.56        | 48.06         | 41.05          | 58.89        | <b>43.97</b> |
| 12     | CoS 17236        | 38.41        | 50.88        | 45.23        | 33.89        | 40.00          | 34.37        | 49.17         | 44.69          | 44.77        | <b>42.38</b> |
| 13     | CoS 17237        | 37.89        | 49.77        | 44.37        | 32.96        | 53.47          | 30.71        | 46.11         | 39.61          | 56.57        | <b>43.50</b> |
| 14     | CoH 17261        | 20.83        | 53.54        | 45.59        | 32.41        | 34.72          | 27.86        | 43.75         | 38.51          | 45.69        | <b>38.10</b> |
| 15     | CoH 17262        | 22.89        | 51.46        | 43.84        | 30.28        | 37.64          | 22.99        | 41.67         | 44.98          | 48.24        | <b>38.22</b> |
|        | <b>Standards</b> |              |              |              |              |                |              |               |                |              |              |
| 1      | CoS 767          | 30.95        | 55.32        | 44.16        | 34.26        | 42.64          | 40.90        | 46.53         | 42.46          | 44.07        | <b>42.37</b> |
| 2      | CoPant 97222     | 32.66        | 60.19        | 44.15        | 36.48        | 34.44          | 25.70        | 44.72         | 44.07          | 58.65        | <b>42.34</b> |
| 3      | Co 05011         | 30.69        | 48.03        | 44.97        | 38.61        | 50.69          | 26.39        | 39.86         | 42.80          | 51.02        | <b>41.45</b> |
|        | <b>Mean</b>      | <b>33.87</b> | <b>53.22</b> | <b>43.98</b> | <b>35.07</b> | <b>43.37</b>   | <b>31.23</b> | <b>46.67</b>  | <b>42.90</b>   | <b>52.95</b> | <b>42.58</b> |
|        | SE (m)           | 2.89         | 3.29         | 1.59         | 1.84         | 1.73           | 1.65         | 1.72          | 1.25           | 2.48         |              |
|        | CD at 5%         | 8.34         | NS           | 3.68         | 3.73         | 3.55           | 4.76         | 4.94          | 3.75           | 7.16         |              |
|        | CV               | 14.76        | 10.95        | 6.25         | 6.41         | 11.75          | 9.15         | 6.38          | 4.36           | 8.11         |              |

**Table 4.10.20 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| S. No | Genotype     | Lucknow * | Shahjahan pur | Pantnagar | Muzzaftar nagar | Karnal | Uchani | Kapurthala | Faridkot | Sriganganagar | Kota   |
|-------|--------------|-----------|---------------|-----------|-----------------|--------|--------|------------|----------|---------------|--------|
| 1     | Co 17018     |           | Better        | On par    | Better          | NA     | On par | Better     | On par   | Poor          | Poor   |
| 2     | CoH 17261    |           | Poor          | Poor      | Poor            | NA     | Better | Poor       | Poor     | Better        | Poor   |
| 3     | CoH 17262    |           | Better        | Poor      | On par          | NA     | On par | On par     | On par   | Better        | Better |
| 4     | CoLk 17204   |           | On par        | On par    | On par          | NA     | On par | Better     | On par   | Poor          | On par |
| 5     | CoLk 17205   |           | On Par        | Poor      | Better          | NA     | Poor   | On par     | On par   | Poor          | Better |
| 6     | CoPb 17213   |           | On par        | On par    | Better          | NA     | On par | On par     | Better   | On par        | On par |
| 7     | CoPb 17214   |           | Better        | Better    | Better          | NA     | Better | Better     | Better   | Better        | Poor   |
| 8     | CoPb 17215   |           | Better        | On par    | Better          | NA     | Better | Better     | Better   | Better        | Better |
| 9     | CoPant 17223 |           | Better        | Better    | On Par          | NA     | Better | Better     | Better   | Better        | On par |
| 10    | CoPant 17224 |           | On par        | On par    | Better          | NA     | On par | On par     | Better   | Poor          | Poor   |
| 11    | CoS 17233    |           | On par        | On par    | On par          | NA     | On par | Poor       | Poor     | Poor          | Poor   |
| 12    | CoS 17234    |           | Better        | Better    | Better          | NA     | On par | Better     | On par   | Better        | Better |
| 13    | CoS 17235    |           | On par        | On par    | On par          | NA     | Better | On par     | Better   | Better        | Better |
| 14    | CoS 17236    |           | On par        | Better    | Better          | NA     | Better | Better     | Better   | On par        | On par |
| 15    | CoS 17237    |           | On par        | Poor      | Better          | NA     | On par | On par     | Better   | Better        | On par |
|       | Standards    |           |               |           |                 |        |        |            |          |               |        |
| 1     | CoS 767      |           | II            | II        | II              | NA     | III    | II         | III      | II            | II     |
| 2     | CoPant 97222 |           | III           | Best      | Best            | NA     | Best   | III        | II       | III           | III    |
| 3     | Co 05011     |           | Best          | III       | II              | NA     | II     | Best       | Best     | Best          | Best   |

NA = Not allotted; \*Poor trial not assessed



## 5. NORTH CENTRAL ZONE

North Central and North East zones comprises of the states of Assam, Bihar, Central & Eastern Uttar Pradesh and West Bengal.

|               |                |
|---------------|----------------|
| State         | Centres        |
| Assam         | Buralikson     |
| Bihar         | Motipur & Pusa |
| Uttar Pradesh | Seorahi        |
| West Bengal   | Bethuadahari   |

### Trials conducted during 2020-21:

| Sl. No. | Location     | AVT Early II Plant | AVT Early Ratoon | AVT Early I Plant | IVT Early | AVT Midlate II Plant | AVT Midlate Ratoon | AVT Midlate I Plant | IVT Midlate |
|---------|--------------|--------------------|------------------|-------------------|-----------|----------------------|--------------------|---------------------|-------------|
| 1       | Bethuadahari | C                  | C                | C                 | C         | C                    | C                  | C                   | C           |
| 2       | Buralikson   | NC                 | NC               | C                 | NC        | C                    | C                  | C                   | NC          |
| 3       | Motipur      | C                  | C                | C                 | C         | C                    | C                  | C                   | C           |
| 4       | Pusa         | C                  | C                | C                 | C         | C                    | C                  | C                   | C           |
| 5       | Seorahi      | C                  | C                | C                 | C         | C                    | C                  | C                   | C           |

C – Trial Conducted, NC– Not Conducted

### 5.1. ADVANCED VARIETAL TRIAL (EARLY) - II PLANT CROP

|                         |   |
|-------------------------|---|
| <b>Centers (4)</b>      | Bethuadahari, Motipur, Pusa and Seorahi                   |
| <b>Entries (5)</b>      | CoP 15436, CoSe 15452, CoSe 15455, CoLk 15466, CoLk 15467 |
| <b>Standards (3)</b>    | CoLk 94184, CoSe 95422 and CoSe 01421                     |
| <b>Design</b>           | RBD   |
| <b>Replications</b>     | Three   |
| <b>Plot size</b>        | Gross : 6m x 8r x 0.90 m<br>Net : 5m x 6r x 0.90 m        |
| <b>Seed rate</b>        | 12 buds per meter   |
| <b>Date of planting</b> | February – March 2020                                     |
| <b>Crop duration</b>    | 10 months   |

**Results of the previous year:** Five test entries and three standards were evaluated in AVT (Early) I plant crop at four locations of North Central and North East zones during 2019-20 for cane yield and juice quality parameters. None of the test entries recorded >10% improvement over the best standard for CCS yield in the zone. The entry CoLk 15466 ranked top in the zone with 11.31 t/ha of mean CCS yield across the locations and also recorded 17.46% improvement over the best standard at Seorahi center. For cane yield, none of the test entries recorded >10% improvement in the zone. The entry CoLk 15466 ranked top in the zone with 93.01 t/ha of mean cane yield in the zone and also recorded 10.04% and 13.48% improvement over the best standards at Seorahi and Motipur centers respectively. For CCS%, none of the test entries recorded >5% improvement across locations. The test entry CoLk 15466 ranked top in the zone with 12.28% of mean CCS% in the zone and recorded 6.80% improvement over best standard at Seorahi. For sucrose%, none of the test entries recorded >5% improvement across locations. The entry CoLk 15466 ranked top in the zone with 17.83% mean sucrose %. Based on cane yield and juice quality parameters, none of the test entries recorded >10% improvement over best standard for CCS yield and cane yield or >5% improvement for CCS% and sucrose%. Hence, no test entry was selected as qualifying entry in the zone.

**Results of the current year:** Five test entries and three standards were evaluated in AVT (Early) II plant crop at four locations of North Central and North East zones during 2020-21 for cane yield and juice quality parameters. None of the test entries recorded >10% improvement over the best standard CoLk 94184 across the zone for CCS yield. Test entry CoP 15436 ranked top in the zone with 11.88 t/ha of mean CCS yield and recorded 15.53% and 14.58% improvement over best standard at Seorahi and Pusa centers respectively. The standard CoLk 94184 and entry CoLk 15466 ranked second and third in the zone with 11.26 t/ha and 11.19 t/ha of mean CCS yield and CoLk 15466 also recorded 11.90 % and 13.46 % improvement over best standards at Seorahi and Pusa centers respectively. For cane yield, none of the test entries recorded >10% improvement over the best standard across the zone. Test entry CoP 15436 ranked top in the zone with 97.31 t/ha of mean cane yield and recorded 12.21% and 16.21% improvement over best standards at Seorahi and Pusa centers respectively. The standard CoLk 94184 and entry CoLk 15466 ranked second and third in the zone with 92.50 t/ha and 92.00 t/ha of mean cane yield respectively and CoLk 15466 also recorded 16.65 % improvement over best standard at Pusa center. None of the test entries recorded >5% improvement for CCS% over the best standard in the zone. The entry CoP 15436 ranked first in the zone with 12.26% of mean CCS%, followed by standard CoLk 94184 with 12.21% of mean CCS%. None of the test entries recorded >5% improvement for sucrose% over the best standard in the zone. The entry CoP 15436 ranked first in the zone with 17.68% mean sucrose %, followed by standard CoLk 94184 with 17.66% mean sucrose%. Compared with best standard CoLk 94184, none of entries was found to be qualifying as they have not recorded > 10% improvement in cane yield or 5% improvement in sucrose content. **The data are presented in tables 5.1.1 to 5.1.20**

**Table 5.1.1. CCS at harvest (t/ha)**

| S. No.                                     | Entries          | Seorahi     | Pusa        | Motipur      | Bethua dahari | Buralik son | Mean         | Overall rank |
|--|------------------|-------------|-------------|--------------|---------------|-------------|--------------|--------------|
| 1  | CoP 15436        | 10.19*      | 11.24       | 16.22        | 9.88          |             | <b>11.88</b> | <b>1</b>     |
| 2  | CoSe 15452       | 10.95*      | 9.44        | 12.33        | 9.48          |             | <b>10.55</b> |              |
| 3  | CoSe 15455       | 9.28        | 7.21        | 9.93         | 8.61          |             | <b>8.76</b>  |              |
| 4  | CoLk 15466       | 9.87*       | 11.13       | 14.34        | 9.40          |             | <b>11.19</b> | <b>3</b>     |
| 5  | CoLk 15467       | 9.99*       | 8.28        | 12.32        | 9.17          |             | <b>9.94</b>  |              |
|  | <b>Standards</b> | -           |             |              |               |             |              |              |
| 1  | CoLk 94184       | 8.82        | 9.81        | 16.28        | 10.11         |             | <b>11.26</b> | <b>2</b>     |
| 2  | CoSe 95422       | 8.38        | 7.72        | 12.98        | 7.76          |             | <b>9.21</b>  |              |
| 3  | CoSe 01421       | 7.80        | 7.80        | 15.16        | 7.72          |             | <b>9.62</b>  |              |
|  | <b>GM</b>        | <b>9.41</b> | <b>9.08</b> | <b>13.70</b> | <b>8.53</b>   |             | <b>10.18</b> |              |
|  | SE               | 0.24        | 0.60        | 0.33         | 0.11          |             |              |              |
|  | CD               | 0.73        | 1.83        | 1.01         | 0.34          |             |              |              |
|  | CV               | 4.42        | 11.41       | 4.22         | 9.66          |             |              |              |
| <b>Qualifying entries at each location</b> |                  |             |             |              |               |             |              |              |
|  | 1                | CoSe 15452  | CoP 15436   |              |               |             |              |              |
|  | 2                | CoP 15436   | CoLk 15466  |              |               |             |              |              |
|  | 3                | CoLk 15467  |             |              |               |             |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoP 15436 (2), CoLk 15466 (2), CoSe 15452 (1), CoLk 15467 (1).

**Performance across the locations:** None of the test entries recorded >10% improvement over the best standard across the zone for CCS yield. Test entry CoP 15436 ranked top in the zone with 11.88 t/ha of mean CCS yield and recorded 15.53% and 14.58% improvement over best standard at Seorahi and Pusa centers respectively. The standard CoLk 94184 and entry CoLk 15466 ranked second and third in the zone with 11.26 t/ha and 11.19 t/ha respectively CoLk 15466 also recorded 11.90 % and 13.46 % improvement over best standard at Seorahi and Pusa centers respectively.

**Table 5.1.2. Cane Yield at harvest (t/ha)**

| S. No. | Entries                                    | Seorahi      | Pusa         | Motipur       | Bethua dahari | Buralik son | Mean         | Overall rank |
|--------|--|--------------|--------------|---------------|---------------|-------------|--------------|--------------|
| 1      | CoP 15436                                  | 84.19*       | 90.88        | 135.67        | 78.48         |             | <b>97.31</b> | <b>1</b>     |
| 2      | CoSe 15452                                 | 86.99*       | 80.72        | 103.85        | 76.60         |             | <b>87.04</b> |              |
| 3      | CoSe 15455                                 | 81.78*       | 59.87        | 84.48         | 69.59         |             | <b>73.93</b> |              |
| 4      | CoLk 15466                                 | 80.00*       | 91.22        | 120.13        | 76.65         |             | <b>92.00</b> | <b>3</b>     |
| 5      | CoLk 15467                                 | 83.52*       | 70.60        | 103.35        | 74.39         |             | <b>82.97</b> |              |
|        | <b>Standards</b>                           | -            |              |               |               |             |              |              |
| 1      | CoLk 94184                                 | 75.03        | 78.20        | 136.65        | 80.11         |             | <b>92.50</b> | <b>2</b>     |
| 2      | CoSe 95422                                 | 71.98        | 67.03        | 112.85        | 64.03         |             | <b>78.97</b> |              |
| 3      | CoSe 01421                                 | 66.04        | 66.45        | 129.13        | 62.74         |             | <b>81.09</b> |              |
|        | <b>GM</b>                                  | <b>78.69</b> | <b>75.62</b> | <b>115.76</b> | <b>68.96</b>  |             | <b>84.76</b> |              |
|        | SE   | 0.70         | 4.78         | 2.48          | 0.89          |             |              |              |
|        | CD   | 2.12         | 14.65        | 7.53          | 2.69          |             |              |              |
|        | CV   | 4.17         | 10.96        | 6.71          | 8.76          |             |              |              |
|        | <b>Qualifying entries at each location</b> |              |              |               |               |             |              |              |
|        | 1  | CoSe 15452   | CoP 15436    |               |               | -           |              |              |
|        | 2  | CoP 15436    | CoLk 15466   |               |               | -           |              |              |
|        | 3  | CoLk 15467   |              |               |               |             |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoP 15436 (2), CoLk 15466 (1), CoSe 15452 (1), CoLk 15467 (1).

**Performance across the locations:** None of the test entries recorded >10% improvement over the best standard across the zone for cane yield. Test entry CoP 15436 ranked top in the zone with 97.31 t/ha of mean cane yield and recorded 12.21% and 16.21% improvement over best standard at Seorahi and Pusa centers respectively. The standard CoLk 94184 and entry CoLk 15466 ranked second and third in the zone with 92.50 t/ha and 92.00 t/ha of mean cane yield and CoLk 15466 also recorded 16.65 % improvement over best standard at Pusa center.

**Table 5.1.3. CCS (%) at harvest**

| S. No.                                     | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         | Overall rank |
|--|------------------|--------------|--------------|--------------|---------------|-------------|--------------|--------------|
| 1  | CoP 15436        | 12.10        | 12.39        | 11.96        | 12.59         |             | <b>12.26</b> | <b>1</b>     |
| 2  | CoSe 15452       | 12.59*       | 11.71        | 11.87        | 12.38         |             | <b>12.14</b> |              |
| 3  | CoSe 15455       | 11.34        | 12.05        | 11.76        | 12.37         |             | <b>11.88</b> |              |
| 4  | CoLk 15466       | 12.35*       | 12.20        | 11.94        | 12.27         |             | <b>12.19</b> | <b>3</b>     |
| 5  | CoLk 15467       | 11.96        | 11.73        | 11.92        | 12.33         |             | <b>11.99</b> |              |
|  | <b>Standards</b> | -            |              |              |               |             |              |              |
| 1  | CoLk 94184       | 11.76        | 12.54        | 11.91        | 12.63         |             | <b>12.21</b> | <b>2</b>     |
| 2  | CoSe 95422       | 11.64        | 11.53        | 11.50        | 12.12         |             | <b>11.70</b> |              |
| 3  | CoSe 01421       | 11.81        | 11.76        | 11.74        | 12.30         |             | <b>11.90</b> |              |
|  | <b>GM</b>        | <b>11.94</b> | <b>11.99</b> | <b>11.83</b> | <b>12.35</b>  |             | <b>12.03</b> |              |
|  | SE               | 0.12         | 0.20         | 0.11         | 0.08          |             |              |              |
|  | CD               | 0.37         | 0.62         | 0.32         | 0.25          |             |              |              |
|  | CV               | 1.75         | 2.95         | 5.56         | 1.60          |             |              |              |
| <b>Qualifying entries at each location</b> |                  |              |              |              |               |             |              |              |
|  | 1                | CoSe 15452   |              |              |               |             |              |              |
|  | 2                |              |              |              |               |             |              |              |
|  | 3                |              |              |              |               |             |              |              |

**No. of locations where an entry recorded >5% improvement: CoSe 15452 (1)**

**Performance across the locations:** None of the test entries recorded >5% improvement for CCS% over the best standard in the zone. The entry CoP 15436 ranked first in the zone with 12.26% of mean CCS%, followed by standard CoLk 94184 (12.21%) and entry CoLk 15466 (12.19%).

**Table 5.1.4. Sucrose (%) at harvest**

| S. No. | Entries                                     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         | Overall rank |
|--------|---|--------------|--------------|--------------|---------------|-------------|--------------|--------------|
| 1      | CoP 15436                                   | 17.49*       | 17.88        | 17.20        | 18.14         |             | <b>17.68</b> | <b>1</b>     |
| 2      | CoSe 15452                                  | 18.07*       | 16.96        | 17.15        | 17.85         |             | <b>17.51</b> |              |
| 3      | CoSe 15455                                  | 16.43        | 17.48        | 16.87        | 17.84         |             | <b>17.16</b> |              |
| 4      | CoLk 15466                                  | 18.00*       | 17.57        | 17.31        | 17.73         |             | <b>17.65</b> | <b>3</b>     |
| 5      | CoLk 15467                                  | 17.25        | 16.98        | 17.26        | 17.78         |             | <b>17.32</b> |              |
|        | <b>Standards</b>                            |              |              |              |               |             |              |              |
| 1      | CoLk 94184                                  | 16.99        | 18.23        | 17.26        | 18.14         |             | <b>17.66</b> | <b>2</b>     |
| 2      | CoSe 95422                                  | 16.50        | 16.73        | 16.58        | 17.54         |             | <b>16.84</b> |              |
| 3      | CoSe 01421                                  | 17.01        | 16.99        | 16.96        | 17.75         |             | <b>17.18</b> |              |
|        | <b>GM</b>                                   | <b>17.22</b> | <b>17.35</b> | <b>17.07</b> | <b>17.81</b>  |             | <b>17.36</b> |              |
|        | SE  | 0.11         | 0.27         | 0.16         | 0.11          |             |              |              |
|        | CD  | 0.34         | 0.83         | 0.48         | 0.33          |             |              |              |
|        | CV  | 1.13         | 2.71         | 8.62         | 1.41          |             |              |              |
|        | <b>Qualifying entries at each locations</b> |              |              |              |               |             |              |              |
|        | 1   | CoSe 15452   |              |              |               |             |              |              |
|        | 2   | CoLk 15466   |              |              |               |             |              |              |
|        | 3   |              |              |              |               |             |              |              |

**No. of locations where an entry recorded >5% improvement:** CoSe 15452 (1), CoLk 15466 (1)

**Performance across the locations:** None of the test entries recorded >5% improvement for sucrose% over the best standard in the zone. The entry CoP 15436 ranked first in the zone with 17.68 mean sucrose %, followed by standard CoLk 94184 with 17.66 and entry CoLk 15466 with 17.65.

**Table 5.1.5. Brix (%) at harvest**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        | 19.78        | 20.13        | 19.25        | 20.38         |             | <b>19.89</b> |
| 2      | CoSe 15452       | 20.48        | 19.27        | 19.38        | 20.07         |             | <b>19.80</b> |
| 3      | CoSe 15455       | 18.65        | 19.90        | 18.78        | 20.09         |             | <b>19.36</b> |
| 4      | CoLk 15466       | 20.73        | 19.70        | 19.71        | 20.04         |             | <b>20.05</b> |
| 5      | CoLk 15467       | 19.42        | 19.27        | 19.58        | 20.02         |             | <b>19.57</b> |
|        | <b>Standards</b> | -            |              |              |               |             |              |
| 1      | CoLk 94184       | 19.20        | 20.87        | 19.61        | 20.25         |             | <b>19.98</b> |
| 2      | CoSe 95422       | 18.62        | 19.07        | 18.65        | 19.89         |             | <b>19.06</b> |
| 3      | CoSe 01421       | 19.10        | 19.20        | 19.15        | 20.00         |             | <b>19.36</b> |
|        | <b>GM</b>        | <b>19.50</b> | <b>19.68</b> | <b>19.26</b> | <b>20.05</b>  |             | <b>19.62</b> |
|        | SE               | 0.17         | 0.29         | 0.22         | 0.11          |             |              |
|        | CD               | 0.52         | 0.89         | 0.68         | 0.32          |             |              |
|        | CV               | 1.54         | 2.54         | 6.00         | 1.08          |             |              |

**Table 5.1.6. Purity (%) at harvest**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        | 88.44        | 88.83        | 89.37        | 89.01         |             | <b>88.91</b> |
| 2      | CoSe 15452       | 88.24        | 87.00        | 88.51        | 88.94         |             | <b>88.17</b> |
| 3      | CoSe 15455       | 88.08        | 87.83        | 89.86        | 88.80         |             | <b>88.64</b> |
| 4      | CoLk 15466       | 88.76        | 88.60        | 87.83        | 88.47         |             | <b>88.42</b> |
| 5      | CoLk 15467       | 88.84        | 87.97        | 88.15        | 88.81         |             | <b>88.44</b> |
|        | <b>Standards</b> | -            |              |              |               |             |              |
| 1      | CoLk 94184       | 88.51        | 87.37        | 88.00        | 89.58         |             | <b>88.37</b> |
| 2      | CoSe 95422       | 88.63        | 87.73        | 88.92        | 88.19         |             | <b>88.37</b> |
| 3      | CoSe 01421       | 89.07        | 88.47        | 88.58        | 88.75         |             | <b>88.72</b> |
|        | <b>GM</b>        | <b>88.57</b> | <b>87.98</b> | <b>88.65</b> | <b>88.84</b>  |             | <b>88.51</b> |
|        | SE               | 0.22         | 0.51         | 0.45         | 0.19          |             |              |
|        | CD               | 0.68         | 1.61         | 1.37         | 0.57          |             |              |
|        | CV               | 0.44         | 1.01         | 4.88         | 0.51          |             |              |

**Table 5.1.7. Pol % cane at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        |         | 13.89        | 13.52        |               |             | <b>13.71</b> |
| 2      | CoSe 15452       |         | 13.08        | 13.42        |               |             | <b>13.25</b> |
| 3      | CoSe 15455       |         | 13.49        | 13.18        |               |             | <b>13.34</b> |
| 4      | CoLk 15466       |         | 13.55        | 13.49        |               |             | <b>13.52</b> |
| 5      | CoLk 15467       |         | 13.06        | 13.43        |               |             | <b>13.25</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | CoLk 94184       |         | 13.98        | 13.35        |               |             | <b>13.67</b> |
| 2      | CoSe 95422       |         | 12.89        | 12.95        |               |             | <b>12.92</b> |
| 3      | CoSe 01421       |         | 13.22        | 13.19        |               |             | <b>13.21</b> |
|        | <b>GM</b>        |         | <b>13.40</b> | <b>13.32</b> |               |             | <b>13.36</b> |
|        | SE               |         | 0.20         | 0.15         |               |             |              |
|        | CD               |         | 0.62         | 0.45         |               |             |              |
|        | CV               |         | 2.62         | 1.94         |               |             |              |

**Table 5.1.8. Extraction (%) at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        |         | 62.30        | 52.33        |               |             | <b>57.32</b> |
| 2      | CoSe 15452       |         | 58.20        | 55.66        |               |             | <b>56.93</b> |
| 3      | CoSe 15455       |         | 59.50        | 53.00        |               |             | <b>56.25</b> |
| 4      | CoLk 15466       |         | 58.30        | 52.66        |               |             | <b>55.48</b> |
| 5      | CoLk 15467       |         | 58.50        | 53.00        |               |             | <b>55.75</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | CoLk 94184       |         | 56.20        | 52.00        |               |             | <b>54.10</b> |
| 2      | CoSe 95422       |         | 57.30        | 57.66        |               |             | <b>57.48</b> |
| 3      | CoSe 01421       |         | 56.60        | 57.00        |               |             | <b>56.80</b> |
|        | <b>GM</b>        |         | <b>58.36</b> | <b>54.17</b> |               |             | <b>56.27</b> |
|        | SE               |         | 2.45         | 1.35         |               |             |              |
|        | CD               |         | 7.71         | 4.10         |               |             |              |
|        | CV               |         | 7.26         | 6.32         |               |             |              |

**Table 5.1.9. Fibre (%) at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        |         | 12.30        | 11.38        |               |             | <b>11.84</b> |
| 2      | CoSe 15452       |         | 12.90        | 11.74        |               |             | <b>12.32</b> |
| 3      | CoSe 15455       |         | 12.80        | 11.87        |               |             | <b>12.34</b> |
| 4      | CoLk 15466       |         | 12.90        | 12.09        |               |             | <b>12.50</b> |
| 5      | CoLk 15467       |         | 13.10        | 12.17        |               |             | <b>12.64</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | CoLk 94184       |         | 13.30        | 12.65        |               |             | <b>12.98</b> |
| 2      | CoSe 95422       |         | 12.95        | 11.80        |               |             | <b>12.38</b> |
| 3      | CoSe 01421       |         | 12.20        | 12.20        |               |             | <b>12.20</b> |
|        | <b>GM</b>        |         | <b>12.81</b> | <b>11.99</b> |               |             | <b>12.40</b> |
|        | SE               |         | 0.40         | 0.38         |               |             |              |
|        | CD               |         | 1.26         | 1.15         |               |             |              |
|        | CV               |         | 5.39         | 5.46         |               |             |              |

**Table 5.1.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Entries          | Seorahi       | Pusa         | Motipur       | Bethua dahari | Buralik son | Mean          |
|--------|------------------|---------------|--------------|---------------|---------------|-------------|---------------|
| 1      | CoP 15436        | 130.00        | 113.18       | 121.24        | 121.90        |             | <b>121.58</b> |
| 2      | CoSe 15452       | 132.00        | 96.25        | 104.59        | 120.29        |             | <b>113.28</b> |
| 3      | CoSe 15455       | 125.00        | 92.60        | 116.55        | 116.29        |             | <b>112.61</b> |
| 4      | CoLk 15466       | 125.00        | 96.30        | 129.62        | 118.65        |             | <b>117.39</b> |
| 5      | CoLk 15467       | 127.00        | 94.60        | 110.63        | 113.55        |             | <b>111.45</b> |
|        | <b>Standards</b> | -             |              |               |               |             |               |
| 1      | CoLk 94184       | 123.00        | 103.40       | 112.48        | 124.46        |             | <b>115.84</b> |
| 2      | CoSe 95422       | 118.00        | 98.06        | 122.75        | 106.26        |             | <b>111.27</b> |
| 3      | CoSe 01421       | 106.00        | 92.50        | 127.70        | 103.46        |             | <b>107.42</b> |
|        | <b>GM</b>        | <b>123.00</b> | <b>98.36</b> | <b>122.07</b> | <b>111.39</b> |             | <b>113.71</b> |
|        | SE               | 1.08          | 5.06         | 5.07          | 2.28          |             |               |
|        | CD               | 3.28          | 15.94        | 15.39         | 6.92          |             |               |
|        | CV               | 4.11          | 8.91         | 7.20          | 6.57          |             |               |



**Table 5.1.11. Stalk Length (cm) at harvest**

| S. No. | Entries          | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralik son | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|-------------|---------------|
| 1      | CoP 15436        | 170.00        | 265.00        | 293.33        | 270.00        |             | <b>249.58</b> |
| 2      | CoSe 15452       | 171.00        | 240.00        | 250.00        | 219.33        |             | <b>220.08</b> |
| 3      | CoSe 15455       | 174.00        | 295.00        | 253.33        | 262.33        |             | <b>246.17</b> |
| 4      | CoLk 15466       | 171.00        | 235.00        | 323.33        | 251.33        |             | <b>245.17</b> |
| 5      | CoLk 15467       | 164.00        | 210.00        | 198.33        | 229.67        |             | <b>200.50</b> |
|        | <b>Standards</b> |               |               |               |               |             |               |
| 1      | CoLk 94184       | 169.00        | 232.00        | 300.00        | 281.67        |             | <b>245.67</b> |
| 2      | CoSe 95422       | 162.00        | 229.00        | 273.33        | 216.33        |             | <b>220.17</b> |
| 3      | CoSe 01421       | 172.00        | 222.00        | 310.00        | 216.33        |             | <b>230.08</b> |
|        | <b>GM</b>        | <b>169.00</b> | <b>241.00</b> | <b>275.20</b> | <b>238.11</b> |             | <b>230.83</b> |
|        | SE               | 0.05          | 10.20         | 6.14          | 6.63          |             |               |
|        | CD               | 0.16          | 31.22         | 18.61         | 20.12         |             |               |
|        | CV               | 5.47          | 7.33          | 3.86          | 10.75         |             |               |

**Table 5.1.12. Stalk Diameter (cm) at harvest**

| S. No. | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|------------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoP 15436        | 2.10        | 2.40        | 1.90        | 2.06          |             | <b>2.12</b> |
| 2      | CoSe 15452       | 2.10        | 2.10        | 2.00        | 2.21          |             | <b>2.10</b> |
| 3      | CoSe 15455       | 2.20        | 2.30        | 2.03        | 2.22          |             | <b>2.19</b> |
| 4      | CoLk 15466       | 2.00        | 2.28        | 1.97        | 2.11          |             | <b>2.09</b> |
| 5      | CoLk 15467       | 2.00        | 2.38        | 1.97        | 2.14          |             | <b>2.12</b> |
|        | <b>Standards</b> |             |             |             |               |             |             |
| 1      | CoLk 94184       | 2.00        | 2.12        | 1.97        | 2.25          |             | <b>2.09</b> |
| 2      | CoSe 95422       | 2.10        | 2.30        | 2.03        | 1.97          |             | <b>2.10</b> |
| 3      | CoSe 01421       | 2.00        | 2.05        | 2.07        | 2.17          |             | <b>2.07</b> |
|        | <b>GM</b>        | <b>2.10</b> | <b>2.24</b> | <b>1.99</b> | <b>2.13</b>   |             | <b>2.12</b> |
|        | SE               | 0.07        | 0.12        | 0.06        | 0.06          |             |             |
|        | CD               | 0.20        | 1.15        | 0.18        | 0.18          |             |             |
|        | CV               | 5.47        | 8.96        | 5.14        | 5.96          |             |             |

**Table 5.1.13. Single Cane Weight (kg.) at harvest**

| S. No. | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|------------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoP 15436        | 0.66        | 0.80        | 0.93        | 0.66          |             | <b>0.76</b> |
| 2      | CoSe 15452       | 0.66        | 0.84        | 0.91        | 0.73          |             | <b>0.79</b> |
| 3      | CoSe 15455       | 0.67        | 0.65        | 0.75        | 0.69          |             | <b>0.69</b> |
| 4      | CoLk 15466       | 0.68        | 0.92        | 0.95        | 0.68          |             | <b>0.81</b> |
| 5      | CoLk 15467       | 0.69        | 0.75        | 0.71        | 0.68          |             | <b>0.71</b> |
|        | <b>Standards</b> |             |             |             |               |             |             |
| 1      | CoLk 94184       | 0.67        | 0.76        | 0.92        | 0.84          |             | <b>0.80</b> |
| 2      | CoSe 95422       | 0.63        | 0.68        | 0.96        | 0.68          |             | <b>0.74</b> |
| 3      | CoSe 01421       | 0.64        | 0.72        | 1.00        | 0.60          |             | <b>0.74</b> |
|        | <b>GM</b>        | <b>0.66</b> | <b>0.77</b> | <b>0.89</b> | <b>0.71</b>   |             | <b>0.76</b> |
|        | SE               | 0.01        | 0.04        | 0.03        | 0.03          |             |             |
|        | CD               | 0.03        | 0.12        | 0.09        | 0.08          |             |             |
|        | CV               | 2.31        | 8.92        | 6.37        | 10.84         |             |             |

**Table 5.1.14. CCS (%) at 240 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        | 11.09        | 11.28        | 10.76        | 11.74         |             | <b>11.22</b> |
| 2      | CoSe 15452       | 12.27        | 11.54        | 11.41        | 11.65         |             | <b>11.72</b> |
| 3      | CoSe 15455       | 10.85        | 11.53        | 10.79        | 11.55         |             | <b>11.18</b> |
| 4      | CoLk 15466       | 11.65        | 12.00        | 11.44        | 11.44         |             | <b>11.63</b> |
| 5      | CoLk 15467       | 11.20        | 11.90        | 11.82        | 11.56         |             | <b>11.62</b> |
|        | <b>Standards</b> |              |              |              |               |             |              |
| 1      | CoLk 94184       | 11.59        | 11.91        | 11.22        | 11.72         |             | <b>11.61</b> |
| 2      | CoSe 95422       | 10.89        | 11.23        | 10.35        | 11.30         |             | <b>10.94</b> |
| 3      | CoSe 01421       | 11.36        | 12.01        | 11.88        | 11.47         |             | <b>11.68</b> |
|        | <b>GM</b>        | <b>11.36</b> | <b>11.68</b> | <b>11.20</b> | <b>11.50</b>  |             | <b>11.44</b> |
|        | SE               | 0.13         | 0.20         | 0.21         | 0.09          |             |              |
|        | CD               | 0.38         | 0.64         | 0.65         | 0.29          |             |              |
|        | CV               | 1.91         | 3.03         | 5.30         | 1.63          |             |              |

**Table 5.1.15. Sucrose (%) at 240 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        | 16.20        | 16.41        | 15.43        | 17.13         |             | <b>16.29</b> |
| 2      | CoSe 15452       | 17.84        | 16.78        | 16.34        | 17.03         |             | <b>17.00</b> |
| 3      | CoSe 15455       | 15.88        | 16.77        | 15.44        | 16.90         |             | <b>16.25</b> |
| 4      | CoLk 15466       | 16.94        | 17.45        | 16.42        | 16.74         |             | <b>16.89</b> |
| 5      | CoLk 15467       | 16.36        | 17.32        | 16.96        | 16.93         |             | <b>16.89</b> |
|        | <b>Standards</b> |              |              |              |               |             |              |
| 1      | CoLk 94184       | 16.84        | 17.34        | 15.77        | 17.10         |             | <b>16.76</b> |
| 2      | CoSe 95422       | 15.98        | 16.36        | 17.76        | 16.60         |             | <b>16.68</b> |
| 3      | CoSe 01421       | 16.64        | 17.43        | 16.73        | 16.81         |             | <b>16.90</b> |
|        | <b>GM</b>        | <b>16.59</b> | <b>16.98</b> | <b>15.98</b> | <b>16.84</b>  |             | <b>16.60</b> |
|        | SE               | 0.18         | 0.29         | 0.26         | 0.12          |             |              |
|        | CD               | 0.55         | 0.90         | 0.80         | 0.36          |             |              |
|        | CV               | 1.90         | 2.94         | 2.87         | 1.39          |             |              |

**Table 5.1.16. Brix (%) at 240 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        | 18.74        | 18.80        | 17.17        | 19.75         |             | <b>18.62</b> |
| 2      | CoSe 15452       | 20.40        | 19.20        | 18.14        | 19.72         |             | <b>19.37</b> |
| 3      | CoSe 15455       | 18.44        | 19.20        | 17.10        | 19.59         |             | <b>18.58</b> |
| 4      | CoLk 15466       | 16.39        | 19.97        | 18.30        | 19.42         |             | <b>18.52</b> |
| 5      | CoLk 15467       | 18.93        | 19.87        | 18.87        | 19.66         |             | <b>19.33</b> |
|        | <b>Standards</b> |              |              |              |               |             |              |
| 1      | CoLk 94184       | 19.24        | 18.90        | 16.82        | 19.71         |             | <b>18.67</b> |
| 2      | CoSe 95422       | 18.64        | 18.80        | 16.20        | 19.39         |             | <b>18.26</b> |
| 3      | CoSe 01421       | 19.35        | 19.90        | 17.90        | 19.54         |             | <b>19.17</b> |
|        | <b>GM</b>        | <b>19.14</b> | <b>19.33</b> | <b>17.56</b> | <b>19.55</b>  |             | <b>18.90</b> |
|        | SE               | 0.22         | 0.32         | 0.24         | 0.09          |             |              |
|        | CD               | 0.67         | 0.99         | 0.73         | 0.29          |             |              |
|        | CV               | 2.00         | 2.81         | 2.38         | 0.97          |             |              |

**Table 5.1.17. Purity (%) at 240 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        | 86.46        | 87.27        | 89.92        | 86.73         |             | <b>87.60</b> |
| 2      | CoSe 15452       | 87.36        | 87.40        | 90.13        | 86.36         |             | <b>87.81</b> |
| 3      | CoSe 15455       | 86.12        | 87.33        | 90.34        | 86.27         |             | <b>87.52</b> |
| 4      | CoLk 15466       | 87.34        | 87.37        | 89.71        | 86.20         |             | <b>87.66</b> |
| 5      | CoLk 15467       | 86.44        | 87.17        | 89.88        | 86.11         |             | <b>87.40</b> |
|        | <b>Standards</b> |              |              |              |               |             |              |
| 1      | CoLk 94184       | 87.53        | 87.13        | 93.87        | 86.76         |             | <b>88.82</b> |
| 2      | CoSe 95422       | 85.72        | 87.00        | 91.05        | 85.61         |             | <b>87.35</b> |
| 3      | CoSe 01421       | 86.01        | 87.70        | 93.51        | 86.03         |             | <b>88.31</b> |
|        | <b>GM</b>        | <b>86.62</b> | <b>87.30</b> | <b>91.05</b> | <b>86.13</b>  |             | <b>87.78</b> |
|        | SE               | 0.28         | 0.19         | 0.77         | 0.26          |             |              |
|        | CD               | 0.85         | 0.60         | 2.35         | 0.78          |             |              |
|        | CV               | 0.56         | 0.38         | 1.47         | 0.59          |             |              |

**Table 5.1.18. Number of Shoots (\*000/ha) at 240 days**

| S. No. | Entries          | Seorahi | Pusa          | Motipur       | Bethua dahari | Buralik son | Mean          |
|--------|------------------|---------|---------------|---------------|---------------|-------------|---------------|
| 1      | CoP 15436        |         | 141.30        | 141.96        | 126.96        |             | <b>136.74</b> |
| 2      | CoSe 15452       |         | 125.60        | 126.79        | 125.09        |             | <b>125.83</b> |
| 3      | CoSe 15455       |         | 127.10        | 137.27        | 120.89        |             | <b>128.42</b> |
| 4      | CoLk 15466       |         | 123.25        | 150.34        | 122.28        |             | <b>131.96</b> |
| 5      | CoLk 15467       |         | 127.15        | 131.35        | 118.48        |             | <b>125.66</b> |
|        | <b>Standards</b> |         |               |               |               |             |               |
| 1      | CoLk 94184       |         | 131.40        | 133.20        | 129.17        |             | <b>131.26</b> |
| 2      | CoSe 95422       |         | 127.15        | 159.47        | 111.17        |             | <b>132.60</b> |
| 3      | CoSe 01421       |         | 117.20        | 163.42        | 108.19        |             | <b>129.60</b> |
|        | <b>GM</b>        |         | <b>127.52</b> | <b>142.97</b> | <b>116.18</b> |             | <b>128.89</b> |
|        | SE               |         | 7.41          | 5.12          | 2.60          |             |               |
|        | CD               |         | 23.36         | 15.52         | 7.89          |             |               |
|        | CV               |         | 10.07         | 6.20          | 6.43          |             |               |

**Table 5.1.19. Number of Tillers (\*000/ha) at 120 days**

| S. No. | Entries          | Seorahi       | Pusa         | Motipur       | Bethua dahari | Buralik son | Mean          |
|--------|------------------|---------------|--------------|---------------|---------------|-------------|---------------|
| 1      | CoP 15436        | 182.00        | 102.50       | 158.98        | 122.89        |             | <b>141.59</b> |
| 2      | CoSe 15452       | 187.00        | 95.60        | 143.81        | 119.77        |             | <b>136.55</b> |
| 3      | CoSe 15455       | 177.00        | 98.30        | 154.29        | 114.42        |             | <b>136.00</b> |
| 4      | CoLk 15466       | 181.00        | 92.40        | 167.36        | 116.88        |             | <b>139.41</b> |
| 5      | CoLk 15467       | 183.00        | 96.50        | 148.37        | 112.90        |             | <b>135.19</b> |
|        | <b>Standards</b> | -             |              |               |               |             |               |
| 1      | CoLk 94184       | 179.00        | 101.25       | 150.22        | 122.95        |             | <b>138.36</b> |
| 2      | CoSe 95422       | 168.00        | 88.50        | 176.49        | 104.00        |             | <b>134.25</b> |
| 3      | CoSe 01421       | 150.00        | 81.10        | 180.43        | 100.96        |             | <b>128.12</b> |
|        | <b>GM</b>        | <b>176.00</b> | <b>94.52</b> | <b>159.99</b> | <b>109.30</b> |             | <b>134.95</b> |
|        | SE               | 0.64          | 4.65         | 5.12          | 2.97          |             |               |
|        | CD               | 1.95          | 14.65        | 15.52         | 9.01          |             |               |
|        | CV               | 1.71          | 8.52         | 11.54         | 7.54          |             |               |

**Table 5.1.20. Germination (%) at 45 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethuada hari | Buralikson | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|------------|--------------|
| 1      | CoP 15436        | 53.61        | 42.80        | 37.57        | 36.86         |            | <b>42.71</b> |
| 2      | CoSe 15452       | 58.06        | 41.10        | 37.20        | 37.04         |            | <b>43.35</b> |
| 3      | CoSe 15455       | 51.67        | 41.70        | 38.00        | 35.90         |            | <b>41.82</b> |
| 4      | CoLk 15466       | 52.68        | 35.20        | 33.70        | 33.85         |            | <b>38.86</b> |
| 5      | CoLk 15467       | 53.70        | 38.30        | 32.33        | 33.99         |            | <b>39.58</b> |
|        | <b>Standards</b> | -            |              |              |               |            |              |
| 1      | CoLk 94184       | 52.87        | 40.35        | 32.16        | 37.30         |            | <b>40.67</b> |
| 2      | CoSe 95422       | 47.69        | 35.30        | 44.83        | 32.67         |            | <b>40.12</b> |
| 3      | CoSe 01421       | 42.41        | 33.60        | 44.70        | 32.30         |            | <b>38.25</b> |
|        | <b>GM</b>        | <b>51.59</b> | <b>38.54</b> | <b>37.56</b> | <b>34.09</b>  |            | <b>40.45</b> |
|        | SE               | 0.43         | 2.01         | 2.23         | 0.61          |            |              |
|        | CD               | 1.30         | 6.17         | 6.77         | 1.84          |            |              |
|        | CV               | 5.18         | 9.05         | 10.29        | 5.94          |            |              |

**Table 5.1.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| Entry / Locations                     | Seorahi   | Pusa      | Motipur   | Bethuadhari | Buralikson    |
|---------------------------------------|-----------|-----------|-----------|-------------|---------------|
| CoP15436                              | Good      | Good      | Very good | Very good   | Not conducted |
| CoLk15466                             | Good      | Very good | Excellent | Good        | Not conducted |
| CoLk15467                             | Good      | Good      | Very good | Good        | Not conducted |
| CoSe15452                             | Average   | Good      | Very good | Good        | Not conducted |
| CoSe15455                             | Good      | Good      | Good      | Good        | Not conducted |
| <b>Standards</b>                      |           |           |           |             |               |
| CoLk 94184                            | Good      | Good      | Very good | Good        | Not conducted |
| CoSe95422                             | Very good | Good      | Good      | Good        | Not conducted |
| CoSe01421                             | Good      | Good      | Good      | Good        | Not conducted |
| Overall Performance of the Experiment | Good      | Very good | Excellent | Very good   | Not conducted |

## 5.2. ADVANCED VARIETAL TRIAL (EARLY) - RATOON

|                       |   |
|-----------------------|---|
| <b>Centers (4)</b>    | Bethuadahari, Motipur, Pusa and Seorahi                   |
| <b>Entries (5)</b>    | CoP 15436, CoSe 15452, CoSe 15455, CoLk 15466, CoLk 15467 |
| <b>Standards (3)</b>  | CoLk 94184, CoSe 95422 and CoSe 01421                     |
| <b>Design</b>         | RBD   |
| <b>Replications</b>   | Three   |
| <b>Plot size</b>      | Gross : 6m x 8r x 0.90 m<br>Net : 5m x 6r x 0.90 m        |
| <b>Ratooning time</b> | February / March, 2020                                    |
| <b>Crop duration</b>  | 9 months  |

**Results of the previous year:** Five test entries and three standards were evaluated in AVT (Early) I plant crop at four locations of North Central and North East zones during 2019-20 for cane yield and juice quality parameters. None of the test entries recorded >10% improvement over the best standard for CCS yield in the zone. The entry CoLk 15466 ranked top in the zone with 11.31 t/ha of mean CCS yield across the locations and also recorded 17.46% improvement over the best standard at Seorahi center. For cane yield, none of the test entries recorded >10% improvement in the zone. The entry CoLk 15466 ranked top in the zone with 93.01 t/ha of mean cane yield in the zone and also recorded 10.04% and 13.48% improvement over the best standards at Seorahi and Motipur centers respectively. For CCS%, none of the test entries recorded >5% improvement across locations. The test entry CoLk 15466 ranked top in the zone with 12.28% of mean CCS% in the zone and recorded 6.80% improvement over best standard at Seorahi. For sucrose%, none of the test entries recorded >5% improvement across locations. The entry CoLk 15466 ranked top in the zone with 17.83% mean sucrose %. Based on cane yield and juice quality parameters, none of the test entries recorded >10% improvement over best standard for CCS yield and cane yield or >5% improvement for CCS% and sucrose%. Hence, no test entry was selected as qualifying entry in the zone.

**Results of the current year:** Five test entries and three standards were evaluated in AVT (Early) ratoon trial at four locations of North Central and North East zones during 2019-20 for cane yield and juice quality parameters. Buralikson did not conduct the trial. None of the test entries recorded >10% improvement over the best standard across the zone for CCS yield. The entry CoLk 15466 ranked top in the zone with 8.74 t/ha of mean CCS yield and also recorded 14.22% improvement over the best standard at Pusa center. The test entries CoSe 15455 and CoP 15436 ranked second and third with 8.31 t/ha and 8.29 t/ha CCS yield and also CoP 15436 recorded 11.37% and 27.33% improvement over the best standards at Seorahi and Pusa respectively. Another test entry CoSe 15452 recorded >10% improvement over best standard at Seorahi center. None of the test entries recorded >10% improvement over the best standard in the zone for cane yield. The entry CoLk 15466 ranked top in the zone with 72.91 t/ha of mean cane yield and also recorded 14.22% improvement over the best standard at Pusa center. The test entries CoSe 15455 and CoP 15436 ranked second and third with 71.25 t/ha and 69.84 t/ha cane yield and also recorded more than 10% improvement over the best standard at Seorahi and Seorahi and Pusa centers respectively. None of the test entries recorded >5% improvement for CCS% over the best standard in the zone. The entry CoLk 15467 ranked first in the zone with 12.05 mean CCS. Test entries CoLk 15466 and standard CoLk 94184 ranked second and third in the zone with 11.90% and 11.97% mean CCS across the locations respectively. None of the test entries recorded >5% improvement for sucrose% over the best standard in the zone. The entry CoLk 15467 ranked first in the zone with 17.34% mean sucrose. The standard CoLk 94184 and the entry CoP 15436 ranked second and third in the zone with 17.16% and 17.15% mean CCS% across the locations respectively. Compared to their best standard CoLk 94184, none of entries was found to be qualifying as no entry recorded > 10% improvement ifor cane yield or 5% improvement for sucrose content. The data are presented in tables 5.10.1 to 5.10.20.

**Table 5.2.1. CCS at harvest (t/ha)**

| S. No. | Entries                                    | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        | Overall rank |
|--------|--|-------------|-------------|-------------|---------------|-------------|-------------|--------------|
| 1      | CoP 15436                                  | 9.21*       | 8.06*       | 7.45        | 8.44          |             | <b>8.29</b> | <b>3</b>     |
| 2      | CoSe 15452                                 | 9.59*       | 5.94        | 6.51        | 7.95          |             | <b>7.50</b> |              |
| 3      | CoSe 15455                                 | 8.98*       | 6.34        | 10.71       | 7.22          |             | <b>8.31</b> | <b>2</b>     |
| 4      | CoLk 15466                                 | 8.98*       | 7.23        | 11.52       | 7.23          |             | <b>8.74</b> | <b>1</b>     |
| 5      | CoLk 15467                                 | 9.14*       | 7.85        | 7.05        | 7.42          |             | <b>7.87</b> |              |
|        | Standards                                  |             |             |             |               |             |             |              |
| 1      | CoLk 94184                                 | 8.27        | 6.33        | 8.90        | 8.44          |             | <b>7.99</b> |              |
| 2      | CoSe 95422                                 | 7.15        | 5.66        | 11.25       | 6.76          |             | <b>7.71</b> |              |
| 3      | CoSe 01421                                 | 7.93        | 5.57        | 9.98        | 6.42          |             | <b>7.48</b> |              |
|        | <b>GM</b>                                  | <b>8.66</b> | <b>6.62</b> | <b>9.17</b> | <b>7.21</b>   |             | <b>7.92</b> |              |
|        | SE(m)                                      | 0.18        | 0.50        | 0.37        | 0.30          |             |             |              |
|        | CD   | 0.57        | 1.53        | 1.11        | 0.91          |             |             |              |
|        | CV   | 3.63        | 13.04       | 6.90        | 11.01         |             |             |              |
|        | <b>Qualifying entries at each location</b> |             |             |             |               |             |             |              |
|        | 1  | CoSe 15452  | CoP 15436   |             |               |             |             |              |
|        | 2  | CoP 15436   | CoLk 15467  |             |               |             |             |              |
|        | 3  | CoLk 15467  | CoLk 15466  |             |               |             |             |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoP 15436 (2), CoLk 15467 (2), CoLk 15466 (1) and CoSe 15452 (1)

**Performance across the locations:** None of the test entries recorded >10% improvement over the best standard across the zone for CCS yield. The entry CoLk 15466 ranked top in the zone with 8.74 t/ha of mean CCS yield and also recorded 14.22% improvement over the best standard at Pusa center. The test entries CoSe 15455 and CoP 15436 ranked second and third with 8.31 t/ha and 8.29 t/ha CCS yield and also CoP 15436 recorded 11.37% and 27.33% improvement over the best standard at Seorahi and Pusa centers respectively.

**Table 5.2.2. Cane Yield at harvest (t/ha)**

| S. No.                                     | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         | Overall rank |
|--|------------------|--------------|--------------|--------------|---------------|-------------|--------------|--------------|
| 1  | CoP 15436        | 80.78*       | 69.20        | 64.26        | 65.13         |             | <b>69.84</b> | <b>3</b>     |
| 2  | CoSe 15452       | 82.00*       | 54.74        | 55.87        | 62.61         |             | <b>63.81</b> |              |
| 3  | CoSe 15455       | 77.97*       | 59.20        | 90.77        | 57.06         |             | <b>71.25</b> | <b>2</b>     |
| 4  | CoLk 15466       | 76.96*       | 59.40        | 97.65        | 57.62         |             | <b>72.91</b> | <b>1</b>     |
| 5  | CoLk 15467       | 79.99*       | 61.73        | 60.68        | 58.73         |             | <b>65.28</b> |              |
|  | <b>Standards</b> | -            |              |              |               |             |              |              |
| 1  | CoLk 94184       | 70.86        | 55.52        | 74.86        | 65.25         |             | <b>66.62</b> |              |
| 2  | CoSe 95422       | 64.23        | 50.97        | 96.45        | 54.80         |             | <b>66.61</b> |              |
| 3  | CoSe 01421       | 69.46        | 47.32        | 83.99        | 51.59         |             | <b>63.09</b> |              |
|  | <b>GM</b>        | <b>75.28</b> | <b>57.26</b> | <b>78.32</b> | <b>57.21</b>  |             | <b>67.02</b> |              |
|  | SE(m)            | 0.72         | 4.54         | 3.03         | 2.35          |             |              |              |
|  | CD               | 2.18         | 14.32        | 9.18         | 7.15          |             |              |              |
|  | CV               | 3.72         | 13.74        | 6.69         | 9.81          |             |              |              |
| <b>Qualifying entries at each location</b> |                  |              |              |              |               |             |              |              |
|  | 1                | CoSe 15452   | CoP 15436    |              |               |             |              |              |
|  | 2                | CoP 15436    | CoLk 15467   |              |               |             |              |              |
|  | 3                | CoLk 15467   |              |              |               |             |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoP 15436 (2), CoLk 15467 (2), CoSe 15452 (1) and CoSe 15455 (1).

**Performance across the locations:** None of the test entries recorded >10% improvement over the best standard in the zone for cane yield. The entry CoLk 15466 ranked top in the zone with 72.91 t/ha of mean cane yield and also recorded 14.22% improvement over the best standard at Pusa center. The test entries CoSe 15455 and CoP 15436 ranked second and third with 71.25 t/ha and 69.84 t/ha cane yield and also recorded more than 10% improvement over the best standard at Seorahi and seorahi and Pusa centers respectively.

**Table 5.2.3. CCS (%) at harvest**

| S. No.                                     | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         | Overall rank |
|--|------------------|--------------|--------------|--------------|---------------|-------------|--------------|--------------|
| 1  | CoP 15436        | 11.35        | 11.67        | 11.58        | 12.95         |             | <b>11.89</b> |              |
| 2  | CoSe 15452       | 11.69        | 10.87        | 11.63        | 12.70         |             | <b>11.72</b> |              |
| 3  | CoSe 15455       | 11.53        | 10.71        | 11.82        | 12.66         |             | <b>11.68</b> |              |
| 4  | CoLk 15466       | 11.68        | 12.19        | 11.56        | 12.55         |             | <b>12.00</b> | <b>2</b>     |
| 5  | CoLk 15467       | 11.43        | 12.72*       | 11.62        | 12.63         |             | <b>12.10</b> | <b>1</b>     |
|  | <b>Standards</b> | -            |              |              |               |             |              |              |
| 1  | CoLk 94184       | 11.67        | 11.41        | 11.88        | 12.93         |             | <b>11.97</b> | <b>3</b>     |
| 2  | CoSe 95422       | 11.14        | 11.10        | 11.67        | 12.33         |             | <b>11.56</b> |              |
| 3  | CoSe 01421       | 11.41        | 11.77        | 11.88        | 12.45         |             | <b>11.88</b> |              |
|  | <b>GM</b>        | <b>11.49</b> | <b>11.56</b> | <b>11.71</b> | <b>12.57</b>  |             | <b>11.83</b> |              |
|  | SE(m)            | 0.08         | 0.16         | 0.22         | 0.05          |             |              |              |
|  | CD               | 0.26         | 0.49         | 0.68         | 0.17          |             |              |              |
|  | CV               | 1.25         | 2.38         | 6.45         | 1.72          |             |              |              |
| <b>Qualifying entries at each location</b> |                  |              |              |              |               |             |              |              |
|  | 1                |              | CoLk 15467   |              |               |             |              |              |
|  | 2                |              |              |              |               |             |              |              |
|  | 3                |              |              |              |               |             |              |              |

**No. of locations where an entry recorded >5% improvement:** CoLk 15467 (1)

**Performance across the locations:** The entry CoLk 15467 ranked first in the zone with 12.05% of mean CCS%. Test entries CoLk 15466 and standard CoLk 94184 ranked second and third in the zone with 11.90% and 11.97% mean CCS% across the locations respectively. None of the test entries recorded >5% improvement for CCS% over the best standard in the zone.



**Table 5.2.4. Sucrose (%) at harvest**

| S. No. | Entries                                    | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         | Overall rank |
|--------|--|--------------|--------------|--------------|---------------|-------------|--------------|--------------|
| 1      | CoP 15436                                  | 16.63        | 17.00        | 16.40        | 18.52         |             | <b>17.14</b> |              |
| 2      | CoSe 15452                                 | 17.12        | 15.95        | 16.44        | 18.22         |             | <b>16.93</b> |              |
| 3      | CoSe 15455                                 | 16.99        | 15.65        | 15.90        | 18.19         |             | <b>16.68</b> |              |
| 4      | CoLk 15466                                 | 17.01        | 17.72        | 15.86        | 18.00         |             | <b>17.15</b> | <b>3</b>     |
| 5      | CoLk 15467                                 | 16.68        | 18.27*       | 16.28        | 18.14         |             | <b>17.34</b> | <b>1</b>     |
|        | <b>Standards</b>                           | -            |              |              |               |             |              |              |
| 1      | CoLk 94184                                 | 17.02        | 16.63        | 16.54        | 18.44         |             | <b>17.16</b> | <b>2</b>     |
| 2      | CoSe 95422                                 | 16.26        | 16.19        | 14.95        | 17.77         |             | <b>16.29</b> |              |
| 3      | CoSe 01421                                 | 16.78        | 17.07        | 15.60        | 17.92         |             | <b>16.84</b> |              |
|        | <b>GM</b>                                  | <b>16.81</b> | <b>16.81</b> | <b>15.99</b> | <b>18.04</b>  |             | <b>16.91</b> |              |
|        | SE(m)                                      | 0.11         | 0.22         | 0.35         | 0.07          |             |              |              |
|        | CD   | 0.34         | 0.66         | 1.06         | 0.23          |             |              |              |
|        | CV   | 1.13         | 2.23         | 5.79         | 1.43          |             |              |              |
|        | <b>Qualifying entries at each location</b> |              |              |              |               |             |              |              |
|        | 1  |              | CoLk 15467   |              |               |             |              |              |
|        | 2  |              |              |              |               |             |              |              |
|        | 3  |              |              |              |               |             |              |              |

**No. of locations where an entry recorded >5% improvement:** CoLk 15467 (1)

**Performance across the locations:** The entry CoLk 15467 ranked first in the zone with 17.34% mean sucrose%. The standard CoLk 94184 and the entry CoP 15436 ranked second and third in the zone with 17.16% and 17.15% mean CCS% across the locations respectively. None of the test entries recorded >5% improvement for sucrose% over the best standard in the zone.

**Table 5.2.5. Brix (%) at harvest**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        | 19.34        | 19.53        | 18.07        | 20.46         |             | <b>19.35</b> |
| 2      | CoSe 15452       | 19.87        | 18.30        | 18.27        | 20.27         |             | <b>19.18</b> |
| 3      | CoSe 15455       | 20.00        | 18.07        | 17.54        | 20.32         |             | <b>18.98</b> |
| 4      | CoLk 15466       | 19.56        | 20.23        | 17.32        | 20.02         |             | <b>19.28</b> |
| 5      | CoLk 15467       | 19.24        | 20.40        | 17.87        | 20.23         |             | <b>19.44</b> |
|        | <b>Standards</b> | -            |              |              |               |             |              |
| 1      | CoLk 94184       | 19.59        | 19.13        | 18.60        | 20.26         |             | <b>19.40</b> |
| 2      | CoSe 95422       | 18.75        | 18.67        | 16.89        | 19.98         |             | <b>18.57</b> |
| 3      | CoSe 01421       | 19.65        | 19.40        | 17.09        | 20.08         |             | <b>19.06</b> |
|        | <b>GM</b>        | <b>19.50</b> | <b>19.22</b> | <b>17.71</b> | <b>20.11</b>  |             | <b>19.14</b> |
|        | SE(m)            | 0.15         | 0.26         | 0.55         | 0.10          |             |              |
|        | CD               | 0.46         | 0.78         | 1.66         | 0.31          |             |              |
|        | CV               | 1.32         | 2.30         | 6.35         | 1.03          |             |              |

**Table 5.2.6. Purity (%) at harvest**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        | 86.17        | 87.03        | 91.57        | 90.52         |             | <b>88.82</b> |
| 2      | CoSe 15452       | 86.61        | 87.17        | 89.65        | 89.89         |             | <b>88.33</b> |
| 3      | CoSe 15455       | 84.18        | 86.60        | 94.47        | 89.52         |             | <b>88.69</b> |
| 4      | CoLk 15466       | 86.03        | 87.57        | 92.28        | 89.91         |             | <b>88.95</b> |
| 5      | CoLk 15467       | 86.61        | 89.60        | 91.06        | 89.67         |             | <b>89.24</b> |
|        | <b>Standards</b> | -            |              |              |               |             |              |
| 1      | CoLk 94184       | 86.02        | 86.90        | 94.42        | 91.02         |             | <b>89.59</b> |
| 2      | CoSe 95422       | 86.78        | 87.07        | 91.99        | 88.94         |             | <b>88.70</b> |
| 3      | CoSe 01421       | 85.12        | 87.97        | 90.42        | 89.24         |             | <b>88.19</b> |
|        | <b>GM</b>        | <b>86.25</b> | <b>87.49</b> | <b>91.98</b> | <b>89.73</b>  |             | <b>88.86</b> |
|        | SE(m)            | 0.40         | 0.50         | 1.21         | 0.29          |             |              |
|        | CD               | 1.22         | 1.52         | 3.68         | 0.87          |             |              |
|        | CV               | 0.79         | 0.99         | 5.29         | 0.82          |             |              |

**Table 5.2.7. Pol % cane at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        |         | 13.11        | 12.73        |               |             | <b>12.92</b> |
| 2      | CoSe 15452       |         | 12.25        | 12.97        |               |             | <b>12.61</b> |
| 3      | CoSe 15455       |         | 12.03        | 12.94        |               |             | <b>12.49</b> |
| 4      | CoLk 15466       |         | 13.45        | 12.61        |               |             | <b>13.03</b> |
| 5      | CoLk 15467       |         | 14.15        | 12.83        |               |             | <b>13.49</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | CoLk 94184       |         | 12.71        | 12.89        |               |             | <b>12.80</b> |
| 2      | CoSe 95422       |         | 12.49        | 12.81        |               |             | <b>12.65</b> |
| 3      | CoSe 01421       |         | 13.17        | 13.20        |               |             | <b>13.19</b> |
|        | <b>GM</b>        |         | <b>12.92</b> | <b>12.87</b> |               |             | <b>12.90</b> |
|        | SE(m)            |         | 0.24         | 0.20         |               |             |              |
|        | CD               |         | 0.73         | 0.60         |               |             |              |
|        | CV               |         | 3.22         | 2.68         |               |             |              |

**Table 5.2.8. Extraction (%) at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        |         | 59.50        | 50.23        |               |             | <b>54.87</b> |
| 2      | CoSe 15452       |         | 55.70        | 55.37        |               |             | <b>55.54</b> |
| 3      | CoSe 15455       |         | 56.10        | 58.84        |               |             | <b>57.47</b> |
| 4      | CoLk 15466       |         | 56.65        | 54.84        |               |             | <b>55.75</b> |
| 5      | CoLk 15467       |         | 55.90        | 53.62        |               |             | <b>54.76</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | CoLk 94184       |         | 54.30        | 59.42        |               |             | <b>56.86</b> |
| 2      | CoSe 95422       |         | 55.10        | 57.77        |               |             | <b>56.44</b> |
| 3      | CoSe 01421       |         | 55.70        | 59.33        |               |             | <b>57.52</b> |
|        | <b>GM</b>        |         | <b>56.12</b> | <b>56.18</b> |               |             | <b>56.15</b> |
|        | SE(m)            |         | 1.64         | 0.55         |               |             |              |
|        | CD               |         | 5.17         | 2.00         |               |             |              |
|        | CV               |         | 5.06         | 4.04         |               |             |              |

**Table 5.2.9. Fibre (%) at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15436        |         | 12.85        | 12.77        |               |             | <b>12.81</b> |
| 2      | CoSe 15452       |         | 13.20        | 12.36        |               |             | <b>12.78</b> |
| 3      | CoSe 15455       |         | 13.10        | 11.96        |               |             | <b>12.53</b> |
| 4      | CoLk 15466       |         | 13.15        | 13.03        |               |             | <b>13.09</b> |
| 5      | CoLk 15467       |         | 13.07        | 12.63        |               |             | <b>12.85</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | CoLk 94184       |         | 13.58        | 12.72        |               |             | <b>13.15</b> |
| 2      | CoSe 95422       |         | 12.90        | 12.67        |               |             | <b>12.79</b> |
| 3      | CoSe 01421       |         | 12.85        | 12.37        |               |             | <b>12.61</b> |
|        | <b>GM</b>        |         | <b>13.09</b> | <b>12.56</b> |               |             | <b>12.83</b> |
|        | SE(m)            |         | 0.28         | 0.25         |               |             |              |
|        | CD               |         | 1.89         | 0.76         |               |             |              |
|        | CV               |         | 3.73         | 5.47         |               |             |              |

**Table 5.2.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Entries          | Seorahi       | Pusa         | Motipur       | Bethua dahari | Buralik son | Mean          |
|--------|------------------|---------------|--------------|---------------|---------------|-------------|---------------|
| 1      | CoP 15436        | 130.00        | 95.83        | 161.57        | 105.98        |             | <b>123.35</b> |
| 2      | CoSe 15452       | 131.00        | 88.56        | 127.28        | 98.82         |             | <b>111.42</b> |
| 3      | CoSe 15455       | 127.00        | 87.34        | 170.32        | 97.38         |             | <b>120.51</b> |
| 4      | CoLk 15466       | 132.00        | 83.82        | 165.27        | 101.58        |             | <b>120.67</b> |
| 5      | CoLk 15467       | 125.00        | 85.96        | 153.92        | 96.37         |             | <b>115.31</b> |
|        | <b>Standards</b> | -             |              |               |               |             |               |
| 1      | CoLk 94184       | 124.00        | 91.33        | 103.11        | 108.96        |             | <b>106.85</b> |
| 2      | CoSe 95422       | 122.00        | 87.26        | 199.06        | 83.97         |             | <b>123.07</b> |
| 3      | CoSe 01421       | 111.00        | 85.38        | 168.84        | 81.46         |             | <b>111.67</b> |
|        | <b>GM</b>        | <b>125.00</b> | <b>88.19</b> | <b>156.17</b> | <b>91.46</b>  |             | <b>115.21</b> |
|        | SE(m)            | 1.03          | 4.52         | 3.60          | 2.58          |             |               |
|        | CD               | 3.11          | 14.25        | 10.93         | 7.84          |             |               |
|        | CV               | 3.19          | 8.88         | 8.99          | 10.09         |             |               |

**Table 5.2.11. Stalk Length (cm) at harvest**

| S. No. | Entries          | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralik son | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|-------------|---------------|
| 1      | CoP 15436        | 176.00        | 225.00        | 238.33        | 251.00        |             | <b>222.58</b> |
| 2      | CoSe 15452       | 172.00        | 215.00        | 198.33        | 205.00        |             | <b>197.58</b> |
| 3      | CoSe 15455       | 175.00        | 218.00        | 238.33        | 243.33        |             | <b>218.67</b> |
| 4      | CoLk 15466       | 176.00        | 205.00        | 266.66        | 230.33        |             | <b>219.50</b> |
| 5      | CoLk 15467       | 159.00        | 202.00        | 190.00        | 211.00        |             | <b>190.50</b> |
|        | <b>Standards</b> | --            |               |               |               |             |               |
| 1      | CoLk 94184       | 162.00        | 211.00        | 270.00        | 261.67        |             | <b>226.17</b> |
| 2      | CoSe 95422       | 168.00        | 207.00        | 235.00        | 195.67        |             | <b>201.42</b> |
| 3      | CoSe 01421       | 160.00        | 203.00        | 221.67        | 199.00        |             | <b>195.92</b> |
|        | <b>GM</b>        | <b>169.00</b> | <b>210.75</b> | <b>232.29</b> | <b>218.78</b> |             | <b>207.71</b> |
|        | SE(m)            | 0.04          | 10.28         | 4.56          | 5.84          |             |               |
|        | CD               | 0.14          | 32.40         | 13.84         | 17.72         |             |               |
|        | CV               | 4.48          | 8.46          | 4.40          | 11.13         |             |               |

**Table 5.2.12. Stalk Diameter (cm) at harvest**

| S. No. | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|------------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoP 15436        | 2.00        | 2.10        | 1.90        | 1.78          |             | <b>1.95</b> |
| 2      | CoSe 15452       | 2.10        | 2.00        | 2.23        | 2.00          |             | <b>2.08</b> |
| 3      | CoSe 15455       | 2.20        | 2.15        | 2.17        | 1.99          |             | <b>2.13</b> |
| 4      | CoLk 15466       | 2.00        | 2.07        | 2.00        | 1.78          |             | <b>1.96</b> |
| 5      | CoLk 15467       | 2.10        | 2.12        | 1.97        | 1.85          |             | <b>2.01</b> |
|        | <b>Standards</b> | -           |             |             |               |             |             |
| 1      | CoLk 94184       | 1.90        | 2.01        | 1.97        | 1.90          |             | <b>1.95</b> |
| 2      | CoSe 95422       | 2.00        | 2.05        | 1.90        | 1.66          |             | <b>1.90</b> |
| 3      | CoSe 01421       | 1.90        | 2.02        | 2.03        | 1.76          |             | <b>1.93</b> |
|        | <b>GM</b>        | <b>2.00</b> | <b>2.07</b> | <b>2.05</b> | <b>1.77</b>   |             | <b>1.97</b> |
|        | SE(m)            | 0.05        | 0.12        | 0.05        | 0.05          |             |             |
|        | CD               | 0.14        | 0.38        | 0.17        | 0.16          |             |             |
|        | CV               | 3.79        | 10.28       | 4.67        | 7.51          |             |             |

**Table 5.2.13. Single Cane Weight (kg.) at harvest**

| S. No. | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|------------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoP 15436        | 0.67        | 0.67        | 0.75        | 0.53          |             | <b>0.66</b> |
| 2      | CoSe 15452       | 0.64        | 0.62        | 0.66        | 0.60          |             | <b>0.63</b> |
| 3      | CoSe 15455       | 0.63        | 0.68        | 0.81        | 0.63          |             | <b>0.69</b> |
| 4      | CoLk 15466       | 0.68        | 0.71        | 0.81        | 0.50          |             | <b>0.67</b> |
| 5      | CoLk 15467       | 0.66        | 0.72        | 0.49        | 0.50          |             | <b>0.59</b> |
|        | <b>Standards</b> | -           |             |             |               |             |             |
| 1      | CoLk 94184       | 0.64        | 0.61        | 0.90        | 0.65          |             | <b>0.70</b> |
| 2      | CoSe 95422       | 0.63        | 0.58        | 0.74        | 0.46          |             | <b>0.60</b> |
| 3      | CoSe 01421       | 0.61        | 0.55        | 0.79        | 0.43          |             | <b>0.60</b> |
|        | <b>GM</b>        | <b>0.65</b> | <b>0.64</b> | <b>0.74</b> | <b>0.51</b>   |             | <b>0.63</b> |
|        | SE(m)            | 0.01        | 0.04        | 0.03        | 0.18          |             |             |
|        | CD               | 0.03        | 0.12        | 0.09        | 0.05          |             |             |
|        | CV               | 2.20        | 10.59       | 7.15        | 14.73         |             |             |

**Table 5.2.14. Number of Shoots ('000/ha) at 180 days**

| S. No. | Entries          | Seorahi | Pusa          | Motipur       | Bethua dahari | Buralik son | Mean          |
|--------|------------------|---------|---------------|---------------|---------------|-------------|---------------|
| 1      | CoP 15436        |         | 145.03        | 175.87        | 111.71        |             | <b>144.20</b> |
| 2      | CoSe 15452       |         | 138.18        | 133.82        | 107.79        |             | <b>126.60</b> |
| 3      | CoSe 15455       |         | 122.38        | 187.10        | 105.62        |             | <b>138.37</b> |
| 4      | CoLk 15466       |         | 126.02        | 177.11        | 108.48        |             | <b>137.20</b> |
| 5      | CoLk 15467       |         | 110.83        | 178.34        | 103.15        |             | <b>130.77</b> |
|        | <b>Standards</b> |         |               |               |               |             |               |
| 1      | CoLk 94184       |         | 105.26        | 115.44        | 115.37        |             | <b>112.02</b> |
| 2      | CoSe 95422       |         | 105.97        | 212.75        | 90.08         |             | <b>136.27</b> |
| 3      | CoSe 01421       |         | 101.26        | 189.93        | 88.05         |             | <b>126.41</b> |
|        | <b>GM</b>        |         | <b>119.37</b> | <b>171.29</b> | <b>97.83</b>  |             | <b>129.50</b> |
|        | SE(m)            |         | 6.79          | 3.85          | 2.50          |             |               |
|        | CD               |         | 20.80         | 11.98         | 7.59          |             |               |
|        | CV               |         | 9.85          | 8.99          | 9.42          |             |               |

**Table 5.2.15. Number of Tillers ('000/ha) at 90 days**

| S. No. | Entries          | Seorahi*      | Pusa          | Motipur       | Bethua dahari | Buralik son | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|-------------|---------------|
| 1      | CoP 15436        | 191.00        | 118.30        | 229.65        | 114.36        |             | <b>163.33</b> |
| 2      | CoSe 15452       | 194.00        | 103.70        | 181.79        | 111.66        |             | <b>147.79</b> |
| 3      | CoSe 15455       | 186.00        | 105.10        | 231.00        | 109.31        |             | <b>157.85</b> |
| 4      | CoLk 15466       | 195.00        | 98.67         | 229.65        | 112.77        |             | <b>159.02</b> |
| 5      | CoLk 15467       | 187.00        | 101.53        | 201.03        | 108.53        |             | <b>149.52</b> |
|        | <b>Standards</b> | -             |               |               |               |             |               |
| 1      | CoLk 94184       | 181.00        | 103.67        | 157.37        | 119.90        |             | <b>140.49</b> |
| 2      | CoSe 95422       | 155.00        | 98.30         | 245.19        | 94.56         |             | <b>148.26</b> |
| 3      | CoSe 01421       | 174.00        | 97.67         | 230.51        | 94.12         |             | <b>149.08</b> |
|        | <b>GM</b>        | <b>183.00</b> | <b>103.37</b> | <b>213.27</b> | <b>102.86</b> |             | <b>150.63</b> |
|        | SE(m)            | 1.58          | 5.03          | 5.38          | 2.33          |             |               |
|        | CD               | 4.78          | 15.84         | 16.31         | 7.08          |             |               |
|        | CV               | 3.35          | 8.42          | 6.37          | 8.47          |             |               |

\* Tillers at 120 days

**Table 5.2.16 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| <b>Entry / Locations</b>              | <b>Seorahi</b> | <b>Pusa</b> | <b>Motipur</b> | <b>Bethuadhari</b> | <b>Buralikson</b> |
|---------------------------------------|----------------|-------------|----------------|--------------------|-------------------|
| CoP15436                              | Good           | Good        | Very good      | Very good          | Not conducted     |
| CoLk15466                             | Good           | Good        | Very good      | Good               | Not conducted     |
| CoLk15467                             | Average        | Good        | Very good      | Good               | Not conducted     |
| CoSe15452                             | Good           | Average     | Excellent      | Good               | Not conducted     |
| CoSe15455                             | Average        | Good        | Good           | Good               | Not conducted     |
| <b>Standards</b>                      |                |             |                |                    |                   |
| CoLk 94184                            | Very good      | Good        | Very good      | Good               | Not conducted     |
| CoSe95422                             | Good           | Good        | Very good      | Good               | Not conducted     |
| CoSe01421                             | Good           | Good        | Good           | Good               | Not conducted     |
| Overall Performance of the Experiment | Good           | Good        | Very Good      | Very good          | Not conducted     |

**5.3. ADVANCED VARIETAL TRIAL (EARLY)  
 Mean of two plant and one ratoon crops (2019-21)**

|                      |   |
|----------------------|---|
| <b>Centers (4)</b>   | Bethuadahari, Motipur, Pusa and Seorahi                   |
| <b>Entries (5)</b>   | CoP 15436, CoSe 15452, CoSe 15455, CoLk 15466, CoLk 15467 |
| <b>Standards (3)</b> | CoLk 94184, CoSe 95422 and CoSe 01421                     |
| <b>Design</b>        | RBD   |
| <b>Replications</b>  | Three   |
| <b>Plot size</b>     | Gross : 6m x 8r x 0.90 m<br>Net : 5m x 6r x 0.90 m        |

In the North Central and North East zones, five early clones were evaluated along with three standards during the crop seasons 2019-21. The trials were conducted by four centres across the zone. Buralikson centre reported that trials could not be conducted due to unavailability of seed material. Pooled data of two plant and one ratoon trials of five centres are presented in tables 5.3.1. to 5.3.4. and in figures 5.3.1. to 5.3.4. The salient results pertaining to CCS (t/ha), cane yield (t/ha), CCS% and sucrose% are given below.

**Commercial Cane Sugar (t/ha):**

None of the test entries recorded >10% improvement over the best standard for CCS yield across locations based on weighted mean. CoLk 15466 (10.41 t/ha) ranked first in the zone and recorded 12.62% improvement over the best standard CoLk 94184 at Seorahi center. The entry CoP 15436 (10.14 t/ha) ranked second in the zone. The standard CoLk 94184 (9.93 t/ha) ranked third in the zone for sugar yield.

**Cane Yield (t/ha):**

None of the test entries recorded >10% improvement over the best standard for cane yield across locations based on weighted mean. CoLk 15466 (86.14 t/ha) ranked first in the zone followed by CoP 15436 (85.01 t/ha) which ranked second across the zone. The standard CoLk 94184 (81.82 t/ha) ranked third in the zone for cane yield.

**Commercial Cane Sugar (%):**

None of the test entries recorded >5% improvement over the best standard for CCS% across locations based on weighted mean. The entry CoLk 15466 ranked first in the zone with 12.15% mean CCS%, followed by the standard CoLk 94184 (12.12%) and entry CoLk 15467 ranked third with 12.10% mean CCS% across the zone.

**Sucrose (%):**

In the zone, none of the test entries recorded >5% improvement over the best standard for sucrose% on weighted mean basis. The entry CoLk 15466 ranked first in the zone with 17.54% mean sucrose. The entry CoLk 15467 (17.46%) and the standard CoLk 94184 (17.45%) ranked second and third respectively in the zone.

**Overall performance:**

Based on the pooled mean of two plant and one ratoon crops in the zone, CoLk 15466 was the best test entry across the zone and as it recorded superior values and ranked first for all the four traits. However, none of the entries were identified as qualifying entry compared to the standard CoLk 94184 in the zone.

**Table 5.3.1. CCS at harvest (t/ha) - Pooled data of two plant and one ratoon crops**

| Sl No.           | Entries    | Seorahi |       |      |       | Pusa  |       |      |       | Motipur |       |       |       | Bethuadahari |       |      |      | GM (Wt. Avg.) | Rank |
|------------------|------------|---------|-------|------|-------|-------|-------|------|-------|---------|-------|-------|-------|--------------|-------|------|------|---------------|------|
|                  |            | IP      | IIP   | R    | Mean  | IP    | IIP   | R    | Mean  | IP      | IIP   | R     | Mean  | IP           | IIP   | R    | Mean |               |      |
| 1                | CoP 15436  | 9.69    | 10.19 | 9.21 | 9.70  | 10.35 | 11.24 | 8.06 | 9.88  | 12.17   | 16.22 | 7.45  | 11.95 | 8.78         | 9.88  | 8.44 | 9.03 | 10.14         | 2    |
| 2                | CoSe 15452 | 10.35   | 10.95 | 9.59 | 10.30 | 10.85 | 9.44  | 5.94 | 8.74  | 13.37   | 12.33 | 6.51  | 10.74 | 8.39         | 9.48  | 7.95 | 8.61 | 9.60          |      |
| 3                | CoSe 15455 | 9.20    | 9.28  | 8.98 | 9.15  | 9.51  | 7.21  | 6.34 | 7.69  | 13.37   | 9.93  | 10.71 | 11.34 | 7.88         | 8.61  | 7.22 | 7.90 | 9.02          |      |
| 4                | CoLk 15466 | 9.62    | 9.87  | 8.98 | 9.49  | 13.74 | 11.13 | 7.23 | 10.70 | 13.36   | 14.34 | 11.52 | 13.07 | 8.50         | 9.40  | 7.23 | 8.38 | 10.41         | 1    |
| 5                | CoLk 15467 | 9.70    | 9.99  | 9.14 | 9.61  | 9.22  | 8.28  | 7.85 | 8.45  | 13.22   | 12.32 | 7.05  | 10.86 | 8.44         | 9.17  | 7.42 | 8.34 | 9.32          |      |
| <b>Standards</b> |            |         |       |      |       |       |       |      |       |         |       |       |       |              |       |      |      |               |      |
| 1                | CoLk 94184 | 8.19    | 8.82  | 8.27 | 8.43  | 12.81 | 9.81  | 6.33 | 9.65  | 12.40   | 16.28 | 8.90  | 12.53 | 8.77         | 10.11 | 8.44 | 9.11 | 9.93          | 3    |
| 2                | CoSe 95422 | 8.09    | 8.38  | 7.15 | 7.87  | 8.44  | 7.72  | 5.66 | 7.27  | 11.29   | 12.98 | 11.25 | 11.84 | 7.45         | 7.76  | 6.76 | 7.32 | 8.58          |      |
| 3                | CoSe 01421 | 7.90    | 7.80  | 7.93 | 7.88  | 8.35  | 7.80  | 5.57 | 7.24  | 12.18   | 15.16 | 9.98  | 12.44 | 6.98         | 7.72  | 6.42 | 7.04 | 8.65          |      |
|                  | GM         | 9.09    | 9.41  | 8.66 | 9.05  | 10.41 | 9.08  | 6.62 | 8.70  | 12.67   | 13.70 | 9.17  | 11.85 | 7.73         | 8.53  | 7.21 | 7.82 | 9.36          |      |



**Table 5.3.2. Cane yield at harvest (t/ha) - Pooled data of two plant and one ratoon crops**

| Sl No.           | Entries    | Seorahi |       |       | Pusa  |        |       | Motipur |       |        | Bethuadahari |       |        |       | GM (Wt. Avg.) | Rank  |       |       |   |
|------------------|------------|---------|-------|-------|-------|--------|-------|---------|-------|--------|--------------|-------|--------|-------|---------------|-------|-------|-------|---|
|                  |            | IP      | IIP   | R     | Mean  | IP     | IIP   | R       | Mean  | IP     | IIP          | R     | Mean   |       |               |       |       |       |   |
| 1                | CoP 15436  | 83.36   | 84.19 | 80.78 | 82.78 | 80.87  | 90.88 | 69.20   | 80.32 | 114.58 | 135.37       | 64.26 | 104.74 | 73.06 | 78.48         | 65.13 | 72.22 | 85.01 | 2 |
| 2                | CoSe 15452 | 85.48   | 86.99 | 82.00 | 84.82 | 85.17  | 80.72 | 54.74   | 73.54 | 113.47 | 103.85       | 55.87 | 91.06  | 70.39 | 76.60         | 62.61 | 69.87 | 79.82 |   |
| 3                | CoSe 15455 | 80.89   | 81.78 | 77.97 | 80.21 | 64.37  | 59.87 | 59.20   | 61.15 | 115.14 | 84.48        | 90.77 | 96.80  | 65.04 | 69.59         | 57.06 | 63.90 | 75.51 |   |
| 4                | CoLk 15466 | 79.56   | 80.00 | 76.96 | 78.84 | 101.80 | 91.22 | 59.40   | 84.14 | 119.80 | 120.13       | 99.65 | 113.19 | 70.86 | 76.65         | 57.62 | 68.38 | 86.14 | 1 |
| 5                | CoLk 15467 | 81.48   | 83.52 | 79.99 | 81.66 | 69.34  | 70.60 | 61.73   | 67.22 | 112.48 | 103.35       | 60.68 | 92.17  | 70.97 | 74.39         | 58.73 | 68.03 | 77.27 |   |
| <b>Standards</b> |            |         |       |       |       |        |       |         |       |        |              |       |        |       |               |       |       |       |   |
| 1                | CoLk 94184 | 72.30   | 75.03 | 70.86 | 72.73 | 96.10  | 78.20 | 55.52   | 76.61 | 105.57 | 136.65       | 74.86 | 105.69 | 71.40 | 80.11         | 65.25 | 72.25 | 81.82 | 3 |
| 2                | CoSe 95422 | 71.56   | 71.98 | 64.23 | 69.26 | 66.91  | 67.03 | 50.97   | 61.64 | 104.09 | 112.85       | 96.45 | 104.46 | 64.26 | 64.03         | 54.80 | 61.03 | 74.10 |   |
| 3                | CoSe 01421 | 67.55   | 66.04 | 69.46 | 67.68 | 66.85  | 66.45 | 47.32   | 60.21 | 103.72 | 129.13       | 83.99 | 105.61 | 62.35 | 62.74         | 51.59 | 58.89 | 73.10 |   |
|                  | GM         | 77.76   | 78.69 | 75.28 | 77.24 | 78.93  | 75.62 | 57.26   | 70.60 | 111.11 | 115.73       | 78.32 | 101.72 | 66.00 | 68.96         | 57.21 | 64.06 | 78.40 |   |

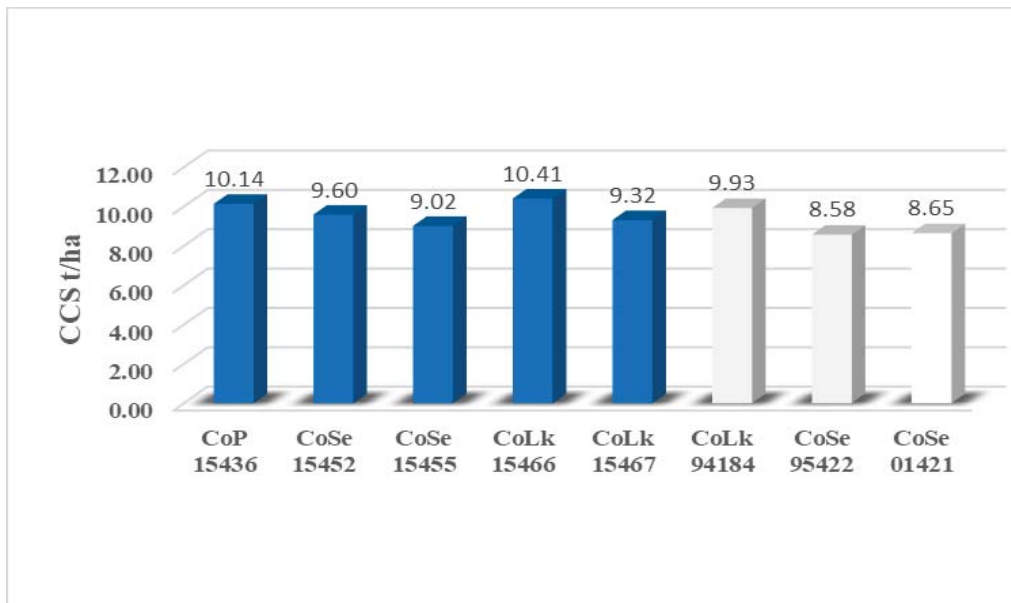
**Table 5.3.3. CCS (%) at harvest - Pooled data of two plant and one ratoon crops**

| Sl No.           | Entries    | Seorahi |       |       | Pusa  |       |       | Motipur |       |       | Bethuadahari |       |       |       | GM (Wt. Avg.) | Rank  |       |       |   |
|------------------|------------|---------|-------|-------|-------|-------|-------|---------|-------|-------|--------------|-------|-------|-------|---------------|-------|-------|-------|---|
|                  |            | IP      | IIP   | R     | Mean  | IP    | IIP   | R       | Mean  | IP    | IIP          | R     | Mean  | R     |               |       |       |       |   |
| 1                | CoP 15436  | 11.64   | 12.10 | 11.35 | 11.70 | 12.80 | 12.39 | 11.67   | 12.29 | 10.65 | 11.96        | 11.58 | 11.40 | 12.02 | 12.59         | 12.95 | 12.52 | 11.98 |   |
| 2                | CoSe 15452 | 12.10   | 12.59 | 11.69 | 12.13 | 12.74 | 11.71 | 10.87   | 11.77 | 11.77 | 11.87        | 11.63 | 11.76 | 11.92 | 12.38         | 12.70 | 12.33 | 12.00 |   |
| 3                | CoSe 15455 | 11.38   | 11.34 | 11.53 | 11.42 | 12.71 | 12.05 | 10.71   | 11.82 | 11.23 | 11.76        | 11.82 | 11.60 | 12.12 | 12.37         | 12.66 | 12.38 | 11.81 |   |
| 4                | CoLk 15466 | 12.10   | 12.35 | 11.68 | 12.04 | 13.49 | 12.20 | 12.19   | 12.63 | 11.53 | 11.94        | 11.56 | 11.68 | 11.99 | 12.27         | 12.55 | 12.27 | 12.15 | 1 |
| 5                | CoLk 15467 | 11.91   | 11.96 | 11.43 | 11.77 | 13.30 | 11.73 | 12.72   | 12.58 | 11.76 | 11.92        | 11.62 | 11.77 | 11.89 | 12.33         | 12.63 | 12.28 | 12.10 | 3 |
| <b>Standards</b> |            |         |       |       |       |       |       |         |       |       |              |       |       |       |               |       |       |       |   |
| 1                | CoLk 94184 | 11.33   | 11.76 | 11.67 | 11.59 | 13.32 | 12.54 | 11.41   | 12.42 | 11.74 | 11.91        | 11.88 | 11.84 | 12.29 | 12.63         | 12.93 | 12.62 | 12.12 | 2 |
| 2                | CoSe 95422 | 11.32   | 11.64 | 11.14 | 11.37 | 12.62 | 11.53 | 11.10   | 11.75 | 10.83 | 11.50        | 11.67 | 11.33 | 11.59 | 12.12         | 12.33 | 12.01 | 11.62 |   |
| 3                | CoSe 01421 | 11.70   | 11.81 | 11.41 | 11.64 | 12.32 | 11.76 | 11.77   | 11.95 | 11.74 | 11.74        | 11.88 | 11.79 | 11.19 | 12.30         | 12.45 | 11.98 | 11.84 |   |
|                  | GM         | 11.69   | 11.94 | 11.49 | 11.71 | 12.91 | 11.99 | 11.56   | 12.15 | 11.41 | 11.83        | 11.71 | 11.65 | 11.69 | 12.35         | 12.57 | 12.20 | 11.93 |   |

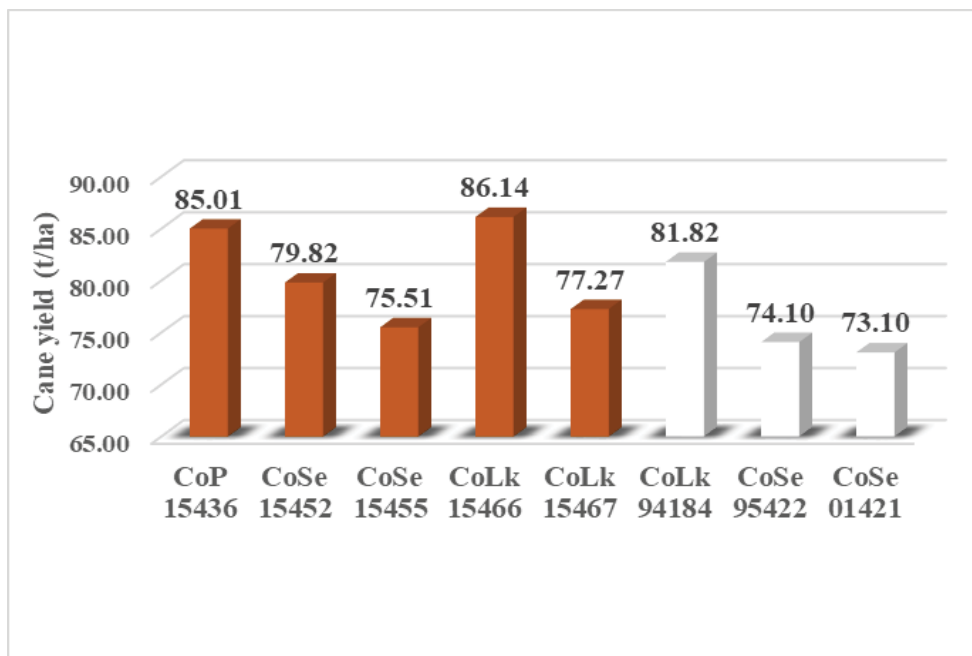
**Table 5.3.4. Sucrose (%) at harvest - Pooled data of two plant and one ratoon crops**

| Sl No. | Entries    | Seorahi |       |       |       | Pusa  |       |       |       | Motipur |       |       |       | Bethuadahari |       |       |       | GM (Wt. Avg.) | Rank |
|--------|------------|---------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|-------|--------------|-------|-------|-------|---------------|------|
|        |            | IP      | IIP   | R     | Mean  | IP    | IIP   | R     | Mean  | IP      | IIP   | R     | Mean  | IP           | IIP   | R     | Mean  |               |      |
| 1      | CoP 15436  | 16.83   | 17.49 | 16.63 | 16.98 | 18.50 | 17.88 | 17.00 | 17.79 | 15.54   | 17.20 | 16.40 | 16.38 | 17.34        | 18.14 | 18.52 | 18.00 | 17.29         |      |
| 2      | CoSe 15452 | 17.50   | 18.07 | 17.12 | 17.56 | 18.48 | 16.96 | 15.95 | 17.13 | 17.25   | 17.15 | 16.44 | 16.95 | 17.19        | 17.85 | 18.22 | 17.75 | 17.35         | 3    |
| 3      | CoSe 15455 | 16.48   | 16.43 | 16.99 | 16.63 | 18.35 | 17.48 | 15.65 | 17.16 | 16.24   | 16.87 | 15.90 | 16.34 | 17.43        | 17.84 | 18.19 | 17.82 | 16.99         |      |
| 4      | CoLk 15466 | 17.53   | 18.00 | 17.01 | 17.51 | 19.46 | 17.57 | 17.72 | 18.25 | 16.98   | 17.31 | 15.86 | 16.72 | 17.33        | 17.73 | 18.00 | 17.69 | 17.54         | 1    |
| 5      | CoLk 15467 | 17.26   | 17.25 | 16.68 | 17.06 | 19.25 | 16.98 | 18.27 | 18.17 | 17.12   | 17.26 | 16.28 | 16.89 | 17.19        | 17.78 | 18.14 | 17.70 | 17.46         |      |
| 1      | CoLk 94184 | 16.41   | 16.99 | 17.02 | 16.81 | 18.89 | 18.23 | 16.63 | 17.92 | 17.18   | 17.26 | 16.54 | 16.99 | 17.71        | 18.14 | 18.44 | 18.10 | 17.45         | 2    |
| 2      | CoSe 95422 | 16.42   | 16.50 | 16.26 | 16.39 | 18.24 | 16.73 | 16.19 | 17.05 | 15.70   | 16.58 | 14.95 | 15.74 | 16.77        | 17.54 | 17.77 | 17.36 | 16.64         |      |
| 3      | CoSe 01421 | 16.88   | 17.01 | 16.78 | 16.89 | 18.08 | 16.99 | 17.07 | 17.38 | 16.87   | 16.96 | 15.60 | 16.48 | 16.23        | 17.75 | 17.92 | 17.30 | 17.01         |      |
|        | GM         | 16.91   | 17.22 | 16.81 | 16.98 | 18.66 | 17.35 | 16.81 | 17.61 | 16.61   | 17.07 | 15.99 | 16.56 | 16.90        | 17.81 | 18.04 | 17.58 | 17.18         |      |

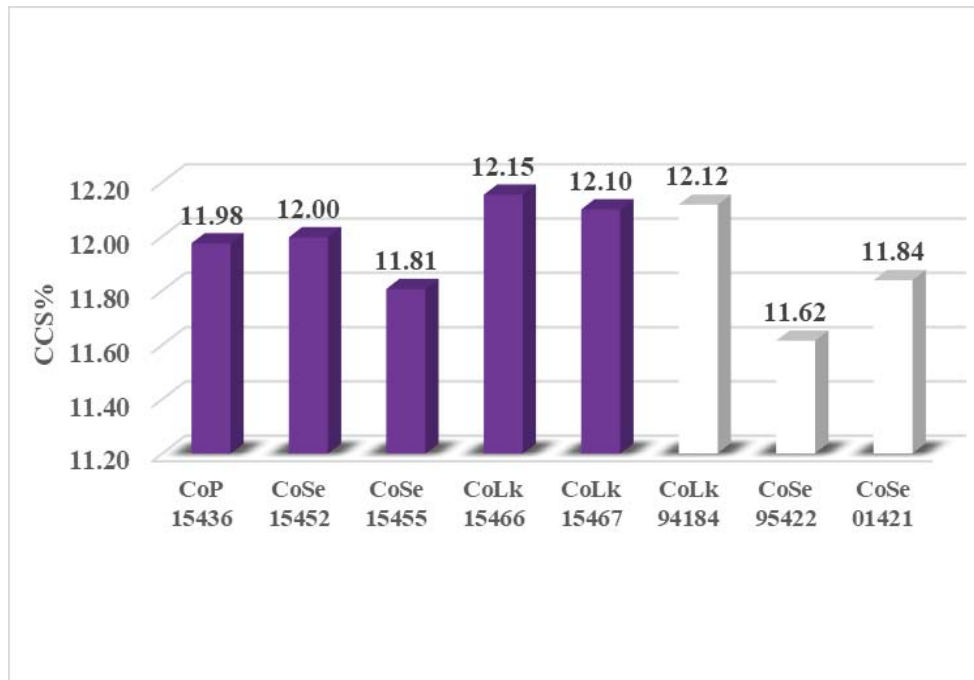
**Fig: 5.3.1.**Mean performance of entries in two plant and one ratoon crops - CCS at harvest (t/ha)



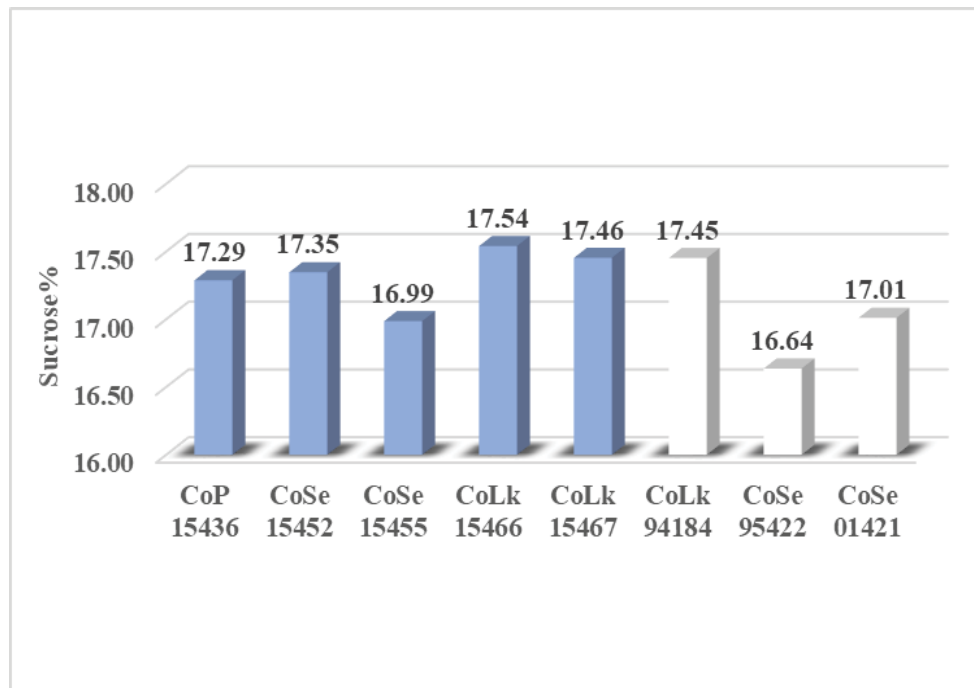
**Fig: 5.3.2.**Mean performance of entries in two plant and one ratoon crops- Cane yield at harvest (t/ha)



**Fig 5.3.3. Mean performance of entries in two plant and one ratoon crops - CCS% at harvest**



**Fig 5.3.4. Mean performance of entries in two plant and one ratoon crops - Sucrose% at harvest**



#### 5.4. ADVANCED VARIETAL TRIAL (EARLY) – I PLANT

|                         |  |
|-------------------------|--|
| <b>Centers (4)</b>      | Bethuadahari, Motipur and Pusa and Seorahi               |
| <b>Entries (5)</b>      | CoP 16437, CoP 16438, CoLk 16466, CoLk 16468, CoSe 16451 |
| <b>Standards (3)</b>    | CoLk 94184, CoSe 95422 and CoSe 01421                    |
| <b>Design</b>           | RBD  |
| <b>Replications</b>     | Three  |
| <b>Plot size</b>        | Gross : 6m x 8r x 0.90 m<br>Net : 5m x 6r x 0.90 m       |
| <b>Seed rate</b>        | 12 buds per meter  |
| <b>Date of planting</b> | February - March, 2020                                   |
| <b>Crop duration</b>    | 10 months  |

**Results of the previous year:** Eight test entries and three standards were evaluated in IVT (Early) trial at five locations of North Central and North East zones during 2019-20 for cane yield and juice quality parameters. None of the test entries recorded >10% improvement over standard for CCS yield in the zone. The test entry CoP 16437 ranked top in the zone with 10.35 t/ha of mean CCS yield across the locations and also recorded 10.06% and 13.56% improvement over the best standard at Seorahi and Pusa centers respectively. Test entries CoSe 16451 and CoLk 16468 ranked second and third with 10.04 t/ha and 9.92 t/ha of mean CCS yield. For cane yield, none of the test entries recorded >10% improvement in the zone. The entry CoP 16437 ranked top in the zone with 86.17 t/ha of mean cane yield across the locations. CoSe 16451 and CoLk 16468 ranked second and third with 83.60 t/ha and 82.84 t/ha mean cane yield respectively. For CCS%, none of the test entries recorded >5% improvement in the zone. Test entries CoP 16437 and CoLk 16468 ranked second and third across the locations with 12.08% and 12.03% of mean CCS% respectively in the zone. For sucrose%, none of the test entries recorded >5% improvement in the zone. The test entry CoSe 16451 was ranked top in the zone with 17.72% of mean sucrose. Another test entry CoP 16437 ranked second across the locations with 17.46% of mean sucrose. Based on cane yield and juice quality parameters, none of the test entries was selected as qualifying entry in the zone.

**Results of the current year:** Five test entries and three standards were evaluated in AVT (Early) I plant trial at four locations of North Central and North East zones during 2020-21 for cane yield and juice quality parameters. The test entry CoP 16437 ranked top in the zone with 10.51 t/ha of mean CCS yield across the locations and also recorded >10% improvement over the best standard for CCS yield in the zone. Test entries CoLk 16466 and CoLk 16468 ranked second and third with 10.17 t/ha and 9.97 t/ha of mean CCS yield respectively and CoLk 16466 recorded 40.09% improvement over best standard at Seorahi center. Test entry CoSe 16451 recorded >10% improvement over best standard at Seorahi and Pusa centers. None of the test entries recorded >10% improvement over the best standard for cane yield in the zone. The test entry CoP 16437 ranked top in the zone with 85.43 t/ha of mean cane yield in the zone and also recorded 10.47% and 52.68% improvement over best standard at Seorahi and Pusa centers respectively. Test entry CoLk 16466 and standard CoSe 01421 ranked second and third with 83.92 t/ha and 80.72 t/ha of mean cane yield respectively CoLk 16466 recorded 11.85% improvement over the best standard at Seorahi center. None of the test entries recorded >5% improvement over the best standard for CCS% across locations. The test entry CoP 16437 ranked top in the zone with 12.36% of mean CCS% in the zone followed by CoSe 16451 and standard CoLk 94184 which ranked second and third in the zone with 12.24% and 12.22% mean CCS% respectively. None of the test entries recorded >5% improvement over the best standard for sucrose% across locations. The test entry CoP 16437 ranked top in the zone with 17.93% of mean sucrose%. Test entry CoSe 16451 and standard CoLk 94184 ranked second and third in the zone with 17.70% and 17.69% of mean sucrose respectively. On comparing with best standard CoLk 94184, none of entries were found to be qualifying as they have not recorded either > 10% improvement in cane yield or 5% improvement in sucrose content. The data are presented in tables 5.4.1 to 5.4.20

**Table 5.4.1. CCS (t/ha) at harvest**

| S. No.   | Entries    | Seorahi     | Pusa        | Motipur      | Bethua dahari | Buralik son | Mean        | Overall rank |
|--|------------|-------------|-------------|--------------|---------------|-------------|-------------|--------------|
| 1  | CoP 16437  | 10.39*      | 13.63*      | 11.02        | 9.40          | 8.12        | 10.51       | <b>1</b>     |
| 2  | CoP 16438  | 9.39        | 12.16*      | 8.50         | 9.06          | 7.21        | 9.26        |              |
| 3  | CoLk 16466 | 10.46*      | 9.22        | 13.92        | 9.15          | 8.09        | 10.17       | <b>2</b>     |
| 4  | CoLk 16468 | 9.63        | 9.46        | 14.22        | 9.16          | 7.36        | 9.97        | <b>3</b>     |
| 5  | CoSe 16451 | 10.84*      | 10.86*      | 8.74         | 9.17          | 9.27        | 9.78        |              |
|  | Standards  | -           |             |              |               |             |             |              |
| 1  | CoLk 94184 | 9.57        | 8.68        | 11.76        | 9.81          | 7.67        | 9.50        |              |
| 2  | CoSe 95422 | 8.21        | 7.52        | 12.76        | 8.10          | 8.96        | 9.11        |              |
| 3  | CoSe 01421 | 7.65        | 7.78        | 16.71        | 8.42          | 6.66        | 9.44        |              |
|  | <b>GM</b>  | <b>9.52</b> | <b>9.91</b> | <b>12.20</b> | <b>8.78</b>   | <b>7.92</b> | <b>9.67</b> |              |
|  | SE(m)      | 0.21        | 0.57        | 0.47         | 0.08          | 0.61        |             |              |
|  | CD         | 0.62        | 1.75        | 1.44         | 0.25          | 1.27        |             |              |
|  | CV         | 3.73        | 9.96        | 6.73         | 5.76          | 9.43        |             |              |
| <b>Top three qualifying entries at each location</b> |            |             |             |              |               |             |             |              |
|  | 1          | CoSe 16451  | CoP 16437   |              |               |             |             |              |
|  | 2          |             | CoP 16438   |              |               |             |             |              |
|  | 3          |             | CoSe 16451  |              |               |             |             |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoSe 16451 (2), CoP 16437 (1), CoP 16438 (1).

**Performance across the locations:** The entry CoP 16437 (10.51 t/ha) recorded >10% improvement over the best standard CoLk 94184 (9.50 t/ha) for CCS yield in the zone. Test entries CoLk 16466 and CoLk 16468 ranked second and third with 10.17 t/ha and 9.97 t/ha of mean CCS yield respectively. CoLk 16466 recorded 40.09% improvement over best standard at Seorahi center. Test entry CoSe 16451 recorded >10% improvement over best standard at Seorahi and Pusa centers.

**Table 5.4.2. Cane Yield (t/ha) at harvest**

| S. No.   | Entries    | Seorahi      | Pusa         | Motipur       | Bethua dahari | Buralik son  | Mean         | Overall rank |
|--|------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|
| 1  | CoP 16437  | 86.13*       | 111.41*      | 91.51         | 75.48         | 62.60        | 85.43        | <b>1</b>     |
| 2  | CoP 16438  | 82.23*       | 104.20*      | 72.77         | 73.59         | 60.57        | 78.67        |              |
| 3  | CoLk 16466 | 87.21*       | 78.63        | 115.69        | 73.54         | 64.53        | 83.92        | <b>2</b>     |
| 4  | CoLk 16468 | 80.95*       | 55.72        | 119.14        | 74.71         | 58.33        | 77.77        |              |
| 5  | CoSe 16451 | 88.97*       | 76.75        | 74.99         | 74.75         | 73.80        | 77.85        |              |
|  | Standards  | -            |              |               |               |              |              |              |
| 1  | CoLk 94184 | 77.97        | 72.97        | 100.02        | 78.94         | 60.37        | 78.05        |              |
| 2  | CoSe 95422 | 72.27        | 61.02        | 108.78        | 67.35         | 72.77        | 76.44        |              |
| 3  | CoSe 01421 | 64.53        | 65.87        | 140.97        | 69.61         | 62.60        | 80.72        | <b>3</b>     |
|  | <b>GM</b>  | <b>80.03</b> | <b>78.32</b> | <b>102.98</b> | <b>71.97</b>  | <b>64.45</b> | <b>79.55</b> |              |
|  | SE(m)      | 0.46         | 3.54         | 4.03          | 0.35          | 4.53         |              |              |
|  | CD         | 1.40         | 10.83        | 12.21         | 1.08          | 9.42         |              |              |
|  | CV         | 2.70         | 7.46         | 9.77          | 4.64          | 8.77         |              |              |
| <b>Top three qualifying entries at each location</b> |            |              |              |               |               |              |              |              |
|  | 1          | CoSe 16451   | CoP 16437    |               |               |              |              |              |
|  | 2          | CoLk 16466   | CoP 16438    |               |               |              |              |              |
|  | 3          | CoP 16437    |              |               |               |              |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoP 16437 (2), CoP 16438 (1), CoLk 16466 (1) and CoSe 16451 (1).

**Performance across the locations:** None of the test entries recorded >10% improvement over the best standard for cane yield in the zone. The test entry CoP 16437 ranked top in the zone with 85.43 t/ha of mean cane yield in the zone and also recorded 10.47% and 52.68% improvement over best standard at Seorahi and Pusa centers respectively. Test entry CoLk 16466 and standard CoSe 01421 ranked second and third with 83.92 t/ha and 80.72 t/ha of mean cane yield respectively CoLk 16466 recorded 11.85% improvement over the best standard at Seorahi center.



**Table 5.4.3. CCS (%) at harvest**

| S. No.  | Entries    | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         | Overall rank |
|---|------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| 1   | CoP 16437  | 12.07        | 12.25        | 12.04        | 12.45         | 12.98        | 12.36        | <b>1</b>     |
| 2   | CoP 16438  | 11.41        | 11.67        | 11.70        | 12.31         | 11.86        | 11.79        |              |
| 3   | CoLk 16466 | 11.99        | 11.74        | 12.04        | 12.44         | 12.56        | 12.15        |              |
| 4   | CoLk 16468 | 11.89        | 11.51        | 11.94        | 12.26         | 12.61        | 12.04        |              |
| 5   | CoSe 16451 | 12.18        | 12.55        | 11.66        | 12.27         | 12.56        | 12.24        | <b>2</b>     |
|   | Standards  | -            |              |              |               |              |              |              |
| 1   | CoLk 94184 | 12.28        | 11.90        | 11.77        | 12.43         | 12.71        | 12.22        | <b>3</b>     |
| 2   | CoSe 95422 | 11.36        | 11.40        | 11.73        | 12.03         | 12.31        | 11.77        |              |
| 3   | CoSe 01421 | 11.85        | 12.53        | 11.85        | 12.09         | 12.55        | 12.17        |              |
|   | <b>GM</b>  | <b>11.88</b> | <b>11.94</b> | <b>11.84</b> | <b>12.18</b>  | <b>12.52</b> | <b>12.07</b> |              |
|   | SE(m)      | 0.13         | 0.30         | 0.15         | 0.08          | 0.25         |              |              |
|   | CD         | 0.38         | 0.95         | 0.45         | 0.26          | 0.52         |              |              |
|   | CV         | 1.84         | 4.37         | 5.19         | 1.55          | 2.44         |              |              |
| <b>Top three qualifying entries at each locations</b> |            |              |              |              |               |              |              |              |
|   | 1          |              |              |              |               |              |              |              |
|   | 2          |              |              |              |               |              |              |              |
|   | 3          |              |              |              |               |              |              |              |

**No. of locations where an entry recorded >5% improvement: Nil**

**Performance across the locations:** None of the test entries recorded >5% improvement over the best standard for CCS% across locations. The test entry CoP 16437 ranked top in the zone with 12.36% of mean CCS% in the zone followed by CoSe 16451 and standard CoLk 94184 ranked second and third in the zone with 12.24% and 12.22% mean CCS% respectively.

**Table 5.4.4. Sucrose (%) at harvest**

| S. No.  | Entries    | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         | Overall rank |
|---|------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| 1   | CoP 16437  | 17.45        | 18.19        | 17.34        | 17.96         | 18.71        | 17.93        | <b>1</b>     |
| 2   | CoP 16438  | 16.56        | 16.94        | 16.80        | 17.81         | 17.34        | 17.09        |              |
| 3   | CoLk 16466 | 17.40        | 16.98        | 17.38        | 17.93         | 18.31        | 17.60        |              |
| 4   | CoLk 16468 | 17.21        | 16.68        | 17.27        | 17.70         | 18.38        | 17.45        |              |
| 5   | CoSe 16451 | 17.62        | 18.07        | 16.76        | 17.69         | 18.37        | 17.70        | <b>2</b>     |
|   | Standards  | -            |              |              |               |              |              |              |
| 1   | CoLk 94184 | 17.74        | 17.23        | 17.06        | 17.94         | 18.46        | 17.69        | <b>3</b>     |
| 2   | CoSe 95422 | 16.46        | 16.54        | 16.78        | 17.41         | 17.87        | 17.01        |              |
| 3   | CoSe 01421 | 17.14        | 18.04        | 17.08        | 17.50         | 18.30        | 17.61        |              |
|   | <b>GM</b>  | <b>17.20</b> | <b>17.33</b> | <b>17.05</b> | <b>17.62</b>  | <b>18.22</b> | <b>17.48</b> |              |
|   | SE(m)      | 0.17         | 0.35         | 0.22         | 0.11          | 0.23         |              |              |
|   | CD         | 0.53         | 1.06         | 0.68         | 0.33          | 0.48         |              |              |
|   | CV         | 1.74         | 3.45         | 6.28         | 1.37          | 1.55         |              |              |
| <b>Top three qualifying entries at each locations</b> |            |              |              |              |               |              |              |              |
|   | 1          |              |              |              |               |              |              |              |
|   | 2          |              |              |              |               |              |              |              |
|   | 3          |              |              |              |               |              |              |              |

**No. of locations where an entry recorded >5% improvement:** Nil

**Performance across the locations:** None of the test entries recorded >5% improvement over the best standard for sucrose% across locations. The entry CoP 16437 ranked top in the zone with 17.93% of mean sucrose%. Test entry CoSe 16451 and standard CoLk 94184 ranked second and third in the zone with 17.70% and 17.69% of mean sucrose respectively.

**Table 5.4.5. Brix (%) at harvest**

| S. No. | Entries    | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16437  | 19.72        | 20.57        | 19.47        | 20.22         | 21.07        | 20.21        |
| 2      | CoP 16438  | 18.87        | 19.30        | 18.73        | 20.17         | 20.07        | 19.43        |
| 3      | CoLk 16466 | 19.83        | 19.20        | 19.60        | 20.15         | 21.07        | 19.97        |
| 4      | CoLk 16468 | 19.52        | 18.97        | 19.54        | 19.98         | 21.13        | 19.83        |
| 5      | CoSe 16451 | 19.96        | 20.27        | 18.74        | 19.91         | 21.26        | 20.03        |
|        | Standards  | -            |              |              |               |              |              |
| 1      | CoLk 94184 | 20.04        | 19.57        | 19.40        | 20.21         | 21.07        | 20.06        |
| 2      | CoSe 95422 | 18.73        | 18.87        | 18.57        | 19.74         | 20.40        | 19.26        |
| 3      | CoSe 01421 | 19.39        | 20.20        | 19.20        | 19.85         | 21.07        | 19.94        |
|        | <b>GM</b>  | <b>19.51</b> | <b>19.62</b> | <b>19.16</b> | <b>19.93</b>  | <b>20.89</b> | <b>19.82</b> |
|        | SE(m)      | 0.18         | 0.32         | 0.31         | 0.10          | 0.12         |              |
|        | CD         | 0.54         | 0.98         | 0.95         | 0.32          | 0.26         |              |
|        | CV         | 1.58         | 2.82         | 8.83         | 1.11          | 0.73         |              |

**Table 5.4.6. Purity (%) at harvest**

| S. No. | Entries    | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16437  | 88.53        | 88.43        | 89.07        | 88.82         | 88.84        | 88.74        |
| 2      | CoP 16438  | 87.89        | 87.67        | 89.67        | 88.30         | 86.42        | 87.99        |
| 3      | CoLk 16466 | 87.39        | 88.40        | 88.69        | 88.98         | 86.95        | 88.08        |
| 4      | CoLk 16468 | 88.13        | 87.93        | 88.40        | 88.59         | 86.97        | 88.00        |
| 5      | CoSe 16451 | 88.31        | 89.13        | 89.44        | 88.85         | 86.38        | 88.42        |
|        | Standards  | -            |              |              |               |              |              |
| 1      | CoLk 94184 | 88.65        | 88.23        | 87.92        | 88.77         | 87.63        | 88.24        |
| 2      | CoSe 95422 | 87.68        | 87.67        | 90.41        | 88.20         | 87.62        | 88.32        |
| 3      | CoSe 01421 | 88.50        | 89.30        | 88.99        | 88.16         | 86.88        | 88.37        |
|        | <b>GM</b>  | <b>88.16</b> | <b>88.35</b> | <b>89.07</b> | <b>88.38</b>  | <b>87.21</b> | <b>88.23</b> |
|        | SE(m)      | 0.15         | 0.59         | 0.62         | 0.27          | 1.37         |              |
|        | CD         | 0.46         | 1.85         | 1.88         | 0.83          | 2.85         |              |
|        | CV         | 0.30         | 1.15         | 6.20         | 0.53          | 1.93         |              |

**Table 5.4.7. Pol (%) cane at harvest**

| S. No. | Entries    | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 16437  |         | 14.20        | 13.46        |               |             | 13.83        |
| 2      | CoP 16438  |         | 13.13        | 13.04        |               |             | 13.09        |
| 3      | CoLk 16466 |         | 13.18        | 13.50        |               |             | 13.34        |
| 4      | CoLk 16468 |         | 12.90        | 13.49        |               |             | 13.20        |
| 5      | CoSe 16451 |         | 13.93        | 13.04        |               |             | 13.49        |
|        | Standards  |         |              |              |               |             |              |
| 1      | CoLk 94184 |         | 13.24        | 13.24        |               |             | 13.24        |
| 2      | CoSe 95422 |         | 12.77        | 13.02        |               |             | 12.90        |
| 3      | CoSe 01421 |         | 13.96        | 13.21        |               |             | 13.59        |
|        | <b>GM</b>  |         | <b>13.41</b> | <b>13.25</b> |               |             | <b>13.33</b> |
|        | SE(m)      |         | 0.28         | 0.18         |               |             |              |
|        | CD         |         | 0.86         | 0.55         |               |             |              |
|        | CV         |         | 3.64         | 2.36         |               |             |              |

**Table 5.4.8. Extraction (%) at harvest**

| S. No. | Entries    | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 16437  |         | 63.10        | 58.88        |               |             | 60.99        |
| 2      | CoP 16438  |         | 61.30        | 55.74        |               |             | 58.52        |
| 3      | CoLk 16466 |         | 57.40        | 51.75        |               |             | 54.58        |
| 4      | CoLk 16468 |         | 58.67        | 55.75        |               |             | 57.21        |
| 5      | CoSe 16451 |         | 55.70        | 54.36        |               |             | 55.03        |
|        | Standards  |         |              |              |               |             |              |
| 1      | CoLk 94184 |         | 53.60        | 50.07        |               |             | 51.84        |
| 2      | CoSe 95422 |         | 55.90        | 55.67        |               |             | 55.79        |
| 3      | CoSe 01421 |         | 56.20        | 57.51        |               |             | 56.86        |
|        | <b>GM</b>  |         | <b>57.73</b> | <b>54.72</b> |               |             | <b>56.23</b> |
|        | SE(m)      |         | 1.88         | 1.27         |               |             |              |
|        | CD         |         | 5.75         | 3.85         |               |             |              |
|        | CV         |         | 5.63         | 4.02         |               |             |              |

**Table 5.4.9. Fibre (%) at harvest**

| S. No. | Entries    | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 16437  |         | 11.95        | 12.38        |               |             | 12.17        |
| 2      | CoP 16438  |         | 12.40        | 12.39        |               |             | 12.40        |
| 3      | CoLk 16466 |         | 12.35        | 12.33        |               |             | 12.34        |
| 4      | CoLk 16468 |         | 12.70        | 11.86        |               |             | 12.28        |
| 5      | CoSe 16451 |         | 12.91        | 12.20        |               |             | 12.56        |
|        | Standards  |         |              |              |               |             |              |
| 1      | CoLk 94184 |         | 13.20        | 12.34        |               |             | 12.77        |
| 2      | CoSe 95422 |         | 12.81        | 12.41        |               |             | 12.61        |
| 3      | CoSe 01421 |         | 12.60        | 12.66        |               |             | 12.63        |
|        | <b>GM</b>  |         | <b>12.62</b> | <b>12.32</b> |               |             | <b>12.47</b> |
|        | SE(m)      |         | 0.39         | 0.33         |               |             |              |
|        | CD         |         | 1.23         | 1.01         |               |             |              |
|        | CV         |         | 5.34         | 6.67         |               |             |              |

**Table 5.4.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Entries    | Seorahi       | Pusa         | Motipur       | Bethua dahari | Buralik son  | Mean          |
|--------|------------|---------------|--------------|---------------|---------------|--------------|---------------|
| 1      | CoP 16437  | 112.00        | 101.60       | 81.03         | 125.80        | 67.43        | 97.57         |
| 2      | CoP 16438  | 112.00        | 99.72        | 94.35         | 125.34        | 62.03        | 98.69         |
| 3      | CoLk 16466 | 118.00        | 85.60        | 122.34        | 124.29        | 65.67        | 103.18        |
| 4      | CoLk 16468 | 110.00        | 87.86        | 119.14        | 126.22        | 62.53        | 101.15        |
| 5      | CoSe 16451 | 116.00        | 92.28        | 80.53         | 125.27        | 68.60        | 96.54         |
|        | Standards  | -             |              |               |               |              |               |
| 1      | CoLk 94184 | 113.00        | 90.68        | 129.62        | 128.43        | 63.07        | 104.96        |
| 2      | CoSe 95422 | 109.00        | 84.60        | 135.05        | 116.63        | 66.37        | 102.33        |
| 3      | CoSe 01421 | 97.00         | 82.72        | 166.25        | 118.36        | 57.00        | 104.27        |
|        | <b>GM</b>  | <b>111.00</b> | <b>90.63</b> | <b>116.04</b> | <b>121.14</b> | <b>64.09</b> | <b>100.58</b> |
|        | SE(m)      | 0.64          | 4.14         | 4.47          | 0.82          | 3.38         |               |
|        | CD         | 1.95          | 12.69        | 13.58         | 2.49          | 7.02         |               |
|        | CV         | 2.71          | 7.92         | 6.69          | 3.27          | 6.45         |               |

**Table 5.4.11. Stalk Length (cm) at harvest**

| S. No. | Entries    | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralik son   | Mean          |
|--------|------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1      | CoP 16437  | 182.00        | 315.00        | 285.00        | 240.00        | 181.83        | 240.77        |
| 2      | CoP 16438  | 178.00        | 308.00        | 285.33        | 242.67        | 186.50        | 240.10        |
| 3      | CoLk 16466 | 177.00        | 265.33        | 301.67        | 239.00        | 190.07        | 234.61        |
| 4      | CoLk 16468 | 173.00        | 271.33        | 336.67        | 259.33        | 188.17        | 245.70        |
| 5      | CoSe 16451 | 176.00        | 235.67        | 246.67        | 238.33        | 235.67        | 226.47        |
|        | Standards  | -             |               |               |               |               |               |
| 1      | CoLk 94184 | 165.00        | 269.33        | 300.00        | 277.67        | 216.00        | 245.60        |
| 2      | CoSe 95422 | 169.00        | 265.33        | 268.33        | 217.00        | 231.83        | 230.30        |
| 3      | CoSe 01421 | 180.00        | 260.67        | 286.00        | 220.00        | 186.00        | 226.53        |
|        | <b>GM</b>  | <b>175.00</b> | <b>273.83</b> | <b>288.70</b> | <b>238.22</b> | <b>202.01</b> | <b>235.55</b> |
|        | SE(m)      | 0.05          | 12.01         | 6.10          | 3.29          | 5.12          |               |
|        | CD         | 0.14          | 36.77         | 18.50         | 9.97          | 10.64         |               |
|        | CV         | 4.54          | 7.59          | 4.66          | 7.86          | 3.10          |               |

**Table 5.4.12. Stalk Diameter (cm) at harvest**

| S. No. | Entries    | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoP 16437  | 2.20        | 3.26        | 2.30        | 2.11          | 2.30        | 2.43        |
| 2      | CoP 16438  | 2.10        | 2.80        | 2.20        | 2.18          | 2.40        | 2.34        |
| 3      | CoLk 16466 | 2.10        | 2.56        | 1.87        | 2.26          | 2.30        | 2.22        |
| 4      | CoLk 16468 | 2.10        | 2.40        | 2.30        | 2.25          | 2.27        | 2.26        |
| 5      | CoSe 16451 | 2.20        | 2.38        | 2.13        | 2.20          | 2.50        | 2.28        |
|        | Standards  | -           |             |             |               |             |             |
| 1      | CoLk 94184 | 2.00        | 2.41        | 2.00        | 2.17          | 2.23        | 2.16        |
| 2      | CoSe 95422 | 2.00        | 2.48        | 2.00        | 1.95          | 2.27        | 2.14        |
| 3      | CoSe 01421 | 1.90        | 2.36        | 2.03        | 2.04          | 2.07        | 2.08        |
|        | <b>GM</b>  | <b>2.10</b> | <b>2.58</b> | <b>2.10</b> | <b>2.05</b>   | <b>2.29</b> | <b>2.22</b> |
|        | SE(m)      | 0.05        | 0.13        | 0.05        | 0.04          | 0.07        |             |
|        | CD         | 0.15        | 0.40        | 0.16        | 0.13          | 0.15        |             |
|        | CV         | 4.13        | 8.84        | 4.39        | 5.56          | 3.79        |             |

**Table 5.4.13. Single Cane Weight (kg) at harvest**

| S. No. | Entries    | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoP 16437  | 0.77        | 1.10        | 1.22        | 0.63          | 0.96        | 0.93        |
| 2      | CoP 16438  | 0.74        | 1.05        | 0.98        | 0.64          | 0.99        | 0.88        |
| 3      | CoLk 16466 | 0.74        | 0.92        | 0.94        | 0.73          | 1.03        | 0.87        |
| 4      | CoLk 16468 | 0.75        | 0.98        | 1.33        | 0.66          | 0.94        | 0.93        |
| 5      | CoSe 16451 | 0.77        | 0.83        | 0.99        | 0.63          | 1.15        | 0.87        |
|        | Standards  | -           |             |             |               |             |             |
| 1      | CoLk 94184 | 0.69        | 0.81        | 0.86        | 0.80          | 0.98        | 0.83        |
| 2      | CoSe 95422 | 0.66        | 0.78        | 0.94        | 0.58          | 1.16        | 0.82        |
| 3      | CoSe 01421 | 0.67        | 0.74        | 0.99        | 0.62          | 0.94        | 0.79        |
|        | <b>GM</b>  | <b>0.72</b> | <b>0.90</b> | <b>1.03</b> | <b>0.66</b>   | <b>1.02</b> | <b>0.87</b> |
|        | SE(m)      | 0.002       | 0.05        | 0.04        | 0.02          | 0.06        |             |
|        | CD         | 0.01        | 0.16        | 0.13        | 0.04          | 0.11        |             |
|        | CV         | 0.60        | 9.72        | 7.07        | 10.34         | 6.62        |             |

**Table 5.4.14. CCS (%) at 240 days**

| S. No. | Entries    | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------|--------------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 16437  | 11.36        | 11.50        | 10.82        | 11.76         | 9.94        | 11.08        |
| 2      | CoP 16438  | 11.12        | 11.44        | 10.50        | 11.69         | 9.77        | 10.90        |
| 3      | CoLk 16466 | 10.76        | 11.01        | 10.77        | 11.70         | 9.87        | 10.82        |
| 4      | CoLk 16468 | 11.18        | 12.10        | 10.75        | 11.64         | 10.06       | 11.15        |
| 5      | CoSe 16451 | 11.20        | 10.29        | 10.10        | 11.65         | 9.27        | 10.50        |
|        | Standards  | -            |              |              |               |             |              |
| 1      | CoLk 94184 | 11.29        | 11.42        | 11.65        | 11.82         | 9.58        | 11.15        |
| 2      | CoSe 95422 | 11.07        | 10.56        | 10.87        | 11.49         | 10.19       | 10.84        |
| 3      | CoSe 01421 | 11.25        | 11.33        | 11.46        | 11.54         | 10.34       | 11.18        |
|        | <b>GM</b>  | <b>11.15</b> | <b>11.21</b> | <b>10.87</b> | <b>11.62</b>  | <b>9.88</b> | <b>10.95</b> |
|        | SE(m)      | 0.13         | 0.33         | 0.30         | 0.05          | 0.24        |              |
|        | CD         | 0.38         | 1.01         | 0.91         | 0.17          | 0.50        |              |
|        | CV         | 1.84         | 5.07         | 6.78         | 1.08          | 2.99        |              |

**Table 5.4.15. Sucrose (%) at 240 days**

| S. No. | Entries    | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16437  | 16.53        | 16.78        | 15.45        | 17.25         | 15.43        | 16.29        |
| 2      | CoP 16438  | 16.24        | 16.68        | 15.14        | 17.14         | 15.12        | 16.06        |
| 3      | CoLk 16466 | 15.81        | 15.94        | 15.07        | 17.15         | 15.33        | 15.86        |
| 4      | CoLk 16468 | 16.31        | 17.55        | 15.41        | 17.05         | 15.54        | 16.37        |
| 5      | CoSe 16451 | 16.35        | 15.32        | 14.53        | 17.07         | 14.77        | 15.61        |
|        | Standards  | -            |              |              |               |              |              |
| 1      | CoLk 94184 | 16.45        | 15.98        | 16.25        | 17.28         | 14.90        | 16.17        |
| 2      | CoSe 95422 | 16.19        | 15.36        | 15.60        | 16.86         | 15.78        | 15.96        |
| 3      | CoSe 01421 | 16.39        | 16.48        | 16.46        | 16.91         | 15.83        | 16.41        |
|        | <b>GM</b>  | <b>16.28</b> | <b>16.26</b> | <b>15.49</b> | <b>17.02</b>  | <b>15.34</b> | <b>16.08</b> |
|        | SE(m)      | 0.17         | 0.34         | 0.30         | 0.07          | 0.31         |              |
|        | CD         | 0.53         | 1.04         | 0.92         | 0.21          | 0.65         |              |
|        | CV         | 1.74         | 3.60         | 6.41         | 1.00          | 2.49         |              |

**Table 5.4.16. Brix (%) at 240 days**

| S. No. | Entries    | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16437  | 18.94        | 19.00        | 17.02        | 20.11         | 19.93        | 19.00        |
| 2      | CoP 16438  | 18.76        | 19.20        | 17.03        | 19.95         | 19.30        | 18.85        |
| 3      | CoLk 16466 | 18.49        | 18.67        | 15.88        | 19.94         | 19.87        | 18.57        |
| 4      | CoLk 16468 | 18.79        | 19.93        | 17.12        | 19.80         | 19.93        | 19.11        |
| 5      | CoSe 16451 | 18.86        | 18.27        | 16.28        | 19.85         | 19.93        | 18.64        |
|        | Standards  | -            |              |              |               |              |              |
| 1      | CoLk 94184 | 18.89        | 18.37        | 16.97        | 20.01         | 19.33        | 18.71        |
| 2      | CoSe 95422 | 18.73        | 17.67        | 17.36        | 19.66         | 20.33        | 18.75        |
| 3      | CoSe 01421 | 18.81        | 18.87        | 18.35        | 19.66         | 19.87        | 19.11        |
|        | <b>GM</b>  | <b>18.78</b> | <b>18.75</b> | <b>17.00</b> | <b>19.78</b>  | <b>19.81</b> | <b>18.82</b> |
|        | SE(m)      | 0.18         | 0.29         | 0.42         | 0.07          | 0.38         |              |
|        | CD         | 0.54         | 0.88         | 1.28         | 0.21          | 0.79         |              |
|        | CV         | 1.58         | 2.66         | 7.29         | 0.93          | 2.35         |              |

**Table 5.4.17. Purity (%) at 240 days**

| S. No. | Entries    | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16437  | 87.24        | 86.80        | 90.79        | 85.78         | 77.39        | 85.60        |
| 2      | CoP 16438  | 86.59        | 86.87        | 88.90        | 85.91         | 78.35        | 85.32        |
| 3      | CoLk 16466 | 85.51        | 85.43        | 94.93        | 86.01         | 77.16        | 85.81        |
| 4      | CoLk 16468 | 86.79        | 88.07        | 90.04        | 86.11         | 77.98        | 85.80        |
| 5      | CoSe 16451 | 86.65        | 83.87        | 89.28        | 85.99         | 74.09        | 83.98        |
|        | Standards  | -            |              |              |               |              |              |
| 1      | CoLk 94184 | 87.06        | 87.00        | 96.53        | 86.36         | 77.07        | 86.80        |
| 2      | CoSe 95422 | 86.40        | 86.93        | 89.93        | 85.76         | 77.61        | 85.33        |
| 3      | CoSe 01421 | 87.11        | 87.33        | 89.68        | 86.01         | 79.69        | 85.96        |
|        | <b>GM</b>  | <b>86.67</b> | <b>86.54</b> | <b>91.26</b> | <b>86.04</b>  | <b>77.42</b> | <b>85.59</b> |
|        | SE(m)      | 0.15         | 0.55         | 2.69         | 0.17          | 0.84         |              |
|        | CD         | 0.46         | 1.69         | 8.15         | 0.52          | 1.75         |              |
|        | CV         | 0.30         | 1.10         | 5.10         | 0.36          | 1.33         |              |

**Table 5.4.18. Number of Shoots ('000/ha) at 240 days**

| S. No. | Entries    | Seorahi | Pusa          | Motipur       | Bethua dahari | Buralik son  | Mean          |
|--------|------------|---------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoP 16437  |         | 136.70        | 98.42         | 131.78        | 69.13        | 109.01        |
| 2      | CoP 16438  |         | 135.70        | 108.04        | 130.76        | 63.73        | 109.56        |
| 3      | CoLk 16466 |         | 124.30        | 129.99        | 129.21        | 67.67        | 112.79        |
| 4      | CoLk 16468 |         | 111.50        | 120.49        | 132.15        | 63.36        | 106.88        |
| 5      | CoSe 16451 |         | 109.25        | 94.22         | 131.87        | 70.87        | 101.55        |
|        | Standards  |         |               |               |               |              |               |
| 1      | CoLk 94184 |         | 131.26        | 143.31        | 134.98        | 65.30        | 118.71        |
| 2      | CoSe 95422 |         | 127.67        | 148.74        | 121.68        | 69.03        | 116.78        |
| 3      | CoSe 01421 |         | 129.52        | 179.94        | 124.21        | 61.67        | 123.84        |
|        | <b>GM</b>  |         | <b>125.74</b> | <b>127.89</b> | <b>126.96</b> | <b>66.35</b> | <b>111.74</b> |
|        | SE(m)      |         | 4.36          | 2.07          | 0.98          | 3.26         |               |
|        | CD         |         | 13.36         | 6.28          | 2.98          | 6.78         |               |
|        | CV         |         | 6.01          | 8.80          | 3.42          | 6.02         |               |

**Table 5.4.19. Number of Tillers ('000/ha) at 120 days**

| S. No. | Entries    | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralik son  | Mean          |
|--------|------------|---------------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoP 16437  | 180.00        | 107.20        | 110.14        | 125.55        | 68.30        | 118.24        |
| 2      | CoP 16438  | 178.00        | 104.66        | 152.31        | 124.06        | 66.50        | 125.11        |
| 3      | CoLk 16466 | 185.00        | 97.33         | 151.82        | 121.22        | 70.33        | 125.14        |
| 4      | CoLk 16468 | 177.00        | 101.63        | 130.98        | 126.49        | 65.53        | 120.33        |
| 5      | CoSe 16451 | 190.00        | 98.20         | 99.65         | 125.38        | 72.43        | 117.13        |
|        | Standards  | -             |               |               |               |              |               |
| 1      | CoLk 94184 | 179.00        | 103.20        | 153.18        | 127.59        | 67.50        | 126.09        |
| 2      | CoSe 95422 | 173.00        | 95.70         | 143.43        | 116.43        | 71.37        | 119.99        |
| 3      | CoSe 01421 | 159.00        | 96.50         | 189.44        | 117.25        | 65.03        | 125.44        |
|        | <b>GM</b>  | <b>178.00</b> | <b>100.55</b> | <b>141.37</b> | <b>120.42</b> | <b>68.38</b> | <b>121.74</b> |
|        | SE(m)      | 0.76          | 3.98          | 2.96          | 1.11          | 3.63         |               |
|        | CD         | 2.31          | 12.55         | 8.97          | 3.36          | 7.55         |               |
|        | CV         | 2.00          | 6.86          | 6.62          | 3.44          | 6.51         |               |

**Table 5.4.20. Germination (%) at 45 days**

| S. No. | Entries    | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralikson   | Mean         |
|--------|------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16437  | 51.29        | 43.20        | 28.23        | 34.65         | 37.00        | 38.87        |
| 2      | CoP 16438  | 49.54        | 41.50        | 26.23        | 33.90         | 37.00        | 37.63        |
| 3      | CoLk 16466 | 52.13        | 34.60        | 42.03        | 35.53         | 40.67        | 40.99        |
| 4      | CoLk 16468 | 48.15        | 36.80        | 35.40        | 33.83         | 35.67        | 37.97        |
| 5      | CoSe 16451 | 53.15        | 35.30        | 16.90        | 34.41         | 40.33        | 36.02        |
|        | Standards  | -            |              |              |               |              |              |
| 1      | CoLk 94184 | 50.28        | 38.50        | 30.50        | 38.03         | 36.33        | 38.73        |
| 2      | CoSe 95422 | 48.33        | 34.80        | 36.63        | 33.51         | 41.67        | 38.99        |
| 3      | CoSe 01421 | 42.22        | 35.60        | 45.06        | 33.68         | 33.33        | 37.98        |
|        | <b>GM</b>  | <b>49.39</b> | <b>37.54</b> | <b>32.62</b> | <b>35.07</b>  | <b>37.75</b> | <b>38.47</b> |
|        | SE(m)      | 0.37         | 1.47         | 1.58         | 0.70          | 2.91         |              |
|        | CD         | 1.11         | 4.50         | 4.80         | 2.13          | 6.06         |              |
|        | CV         | 4.63         | 6.79         | 8.40         | 4.85          | 9.45         |              |

**Table 5.4.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| Entry / Locations | Seorahi | Pusa      | Motipur   | Bethuadhari | Buralikson |
|-------------------|---------|-----------|-----------|-------------|------------|
| CoP 16437         | Good    | Excellent | Excellent | Good        | Good       |
| CoP16438          | Average | Very good | Good      | Good        | Average    |
| CoLk 16466        | Good    | Very good | Excellent | Good        | Average    |
| CoLk 16468        | Poor    | Very good | Very good | Good        | Average    |
| CoSe16451         | Good    | Good      | Good      | Average     | Average    |
| <b>Standards</b>  |         |           |           |             |            |
| CoLk 94184        | Good    | Good      | Good      | Good        | Good       |
| CoSe95422         | Good    | Good      | Good      | Good        | Good       |
| CoSe01421         | Good    | Good      | Good      | Good        | Good       |



### 5.5. INITIAL VARIETAL TRIAL (EARLY)

|                         |  |
|-------------------------|--|
| <b>Centers (4)</b>      | Bethuadahari, Motipur, Pusa and Seorahi  |
| <b>Entries (8)</b>      | <ol style="list-style-type: none"> <li>1. CoSe 16454 (BO 17 GC)</li> <li>2. CoP 17436 (CoS 8436 x Co 89003)</li> <li>3. CoP 17437 (Co 7201 GC)</li> <li>4. CoP 17438 (LG 1118 GC)</li> <li>5. CoP 17440 (CoSe 92423 GC)</li> <li>6. CoP 17441 (CoSe 92423 GC)</li> <li>7. CoSe 17451 (BO 120 GC)</li> <li>8. CoBln 17501 (Co 86010 x CoS 510)</li> </ol> |
| <b>Standards (3)</b>    | CoLk 94184, CoSe 95422 and CoSe 01421  |
| <b>Design</b>           | RBD  |
| <b>Replications</b>     | Three  |
| <b>Plot size</b>        | Gross : 6m x 6r x 0.90 m<br>Net : 5m x 4r x 0.90 m   |
| <b>Seed rate</b>        | 12 buds per meter  |
| <b>Date of planting</b> | February - March, 2020   |
| <b>Crop duration</b>    | 10 months  |

#### Results of the previous year:

Eight test entries viz., CoSe 16454, CoP 17436, CoP 17437, CoP 17438, CoP 17440, CoP 17441, CoSe 17451, CoBln 17501 along with three standards CoLk 94184, CoSe 95422 and CoSe 01421 were under multiplication during 2019-2020.

#### Results of the current year:

Eight test entries and three standards were evaluated in IVT (Early) trial at four locations of North Central and North East zones during 2020-21 for cane yield and juice quality parameters. None of the test entries recorded >10% improvement over standard for CCS yield in the zone. The test entry CoP 17441 ranked top in the zone with 10.85 t/ha of mean CCS yield across the locations and also recorded 14.04% and 11.03% improvement over best standard at Pusa and Motipur centers respectively. Test entries CoP 17438 and CoP 17437 ranked second and third with 10.64 t/ha and 10.46 t/ha of mean CCS yield and recorded more than 10% improvement over best standards at two (Pusa and Motipur) and one (Pusa) centres respectively. For cane yield, the entry CoP 17441 recorded >10% improvement over the best standard for cane yield in the zone. The test entry CoP 17441 ranked top in the zone with 93.06 t/ha of mean cane yield across the locations CoP 17438 and CoP 17440 ranked second and third with 87.48 t/ha and 86.58 t/ha. For CCS%, none of the test entries recorded >5% improvement over the best standard. The test entry CoP 17438 ranked top in the zone with 12.19% of mean CCS%. The entry CoP 17437 and standard CoLk 94184 ranked second across the locations with 12.15% of mean CCS%, followed by standard CoSe 01421 (12.12%). For sucrose%, none of the test entries recorded >5% improvement in the zone. The test entry CoP 17437 ranked top in the zone with 17.61% mean sucrose%. Another test entry CoP 17437 ranked second across the locations with 17.56% mean sucrose%, followed by the standard CoLk 94184 recording 17.55%. Compared to the best standard CoLk 94184, none of entries were found to be qualifying as no entry recorded > 10% improvement in cane yield or 5% improvement in sucrose content. **The data are presented in table 5.5.1 to 5.5.20.**

**Table 5.5.1. CCS at harvest (t/ha)**

| S. No. | Entries  | Seorahi     | Pusa         | Motipur      | Bethua dahari | Mean         | Overall rank |
|--------|--|-------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoSe 16454   | 10.40*      | 10.16        | 11.44        | 9.28          | <b>10.32</b> |              |
| 2      | CoP 17436  | 9.08        | 10.50        | 10.44        | 9.62          | <b>9.91</b>  |              |
| 3      | CoP 17437  | 9.84        | 13.02*       | 9.67         | 9.31          | <b>10.46</b> | <b>3</b>     |
| 4      | CoP 17438  | 9.87        | 12.14*       | 11.42        | 9.13          | <b>10.64</b> | <b>2</b>     |
| 5      | CoP 17440  | 8.96        | 12.40*       | 9.64         | 8.90          | <b>9.98</b>  |              |
| 6      | CoP 17441  | 8.99        | 14.04*       | 11.03        | 9.32          | <b>10.85</b> | <b>1</b>     |
| 7      | CoSe 17451   | 10.84*      | 10.00        | 10.52        | 9.38          | <b>10.19</b> |              |
| 8      | CoBln 17501  | 6.09        | 6.81         | 9.22         | 7.47          | <b>7.40</b>  |              |
|        | <b>Standards</b>                                     | -           |              |              |               |              |              |
| 1      | CoLk 94184   | 9.24        | 9.08         | 11.78        | 9.71          | <b>9.95</b>  |              |
| 2      | CoSe 95422   | 8.49        | 7.64         | 12.33        | 8.02          | <b>9.12</b>  |              |
| 3      | CoSe 01421   | 7.85        | 8.79         | 12.28        | 8.43          | <b>9.34</b>  |              |
|        | <b>GM</b>  | <b>9.06</b> | <b>10.42</b> | <b>10.89</b> | <b>8.72</b>   | <b>9.77</b>  |              |
|        | SE (m)   | 0.36        | 0.64         | 0.50         | 0.09          |              |              |
|        | CD   | 1.06        | 1.90         | 1.48         | 0.26          |              |              |
|        | CV   | 6.83        | 10.66        | 8.01         | 7.62          |              |              |
|        | <b>Top three qualifying entries at each location</b> |             |              |              |               |              |              |
|        | 1  | CoSe 17451  | CoP 17441    |              |               |              |              |
|        | 2  | CoSe 16454  | CoP 17437    |              |               |              |              |
|        | 3  |             | CoP 17440    |              |               |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoSe 16454 (1), CoP 17437 (1), CoP 17438 (1), CoP 17440 (1), CoP 17441 (1), CoSe 17451 (1)

**Performance across the locations:** None of the test entries recorded >10% improvement over the best standard for CCS yield in the zone. The test entry CoP 17441 ranked top in the zone with 10.85 t/ha of mean CCS yield across the locations and also recorded 14.04% and 11.03% improvement over best standard at Pusa and Motipur centers respectively. CoP 17438 and CoP 17437 ranked second and third with 10.64 t/ha and 10.46 t/ha of mean CCS yield and recorded more than 10% improvement over best standards at two (Pusa and Motipur) and one (Pusa) centres respectively.

**Table 5.5.2. Cane Yield at harvest (t/ha)**

| S. No. | Entries  | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         | Overall rank |
|--------|--|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoSe 16454   | 85.56*       | 86.04        | 96.56        | 73.76         | <b>85.48</b> |              |
| 2      | CoP 17436  | 76.99        | 91.88        | 91.18        | 76.80         | <b>84.21</b> |              |
| 3      | CoP 17437  | 82.76*       | 103.46*      | 82.47        | 75.36         | <b>86.01</b> |              |
| 4      | CoP 17438  | 81.90*       | 97.30*       | 97.11        | 73.55         | <b>87.47</b> | <b>2</b>     |
| 5      | CoP 17440  | 77.95        | 105.90*      | 90.23        | 72.24         | <b>86.58</b> | <b>3</b>     |
| 6      | CoP 17441  | 78.79        | 120.10*      | 99.15        | 74.21         | <b>93.06</b> | <b>1</b>     |
| 7      | CoSe 17451   | 87.46*       | 85.12        | 89.51        | 75.38         | <b>84.37</b> |              |
| 8      | CoBln 17501  | 56.05        | 62.99        | 81.91        | 64.60         | <b>66.39</b> |              |
|        | <b>Standards</b>                                     |              |              |              |               |              |              |
| 1      | CoLk 94184   | 75.98        | 76.42        | 98.22        | 77.43         | <b>82.01</b> |              |
| 2      | CoSe 95422   | 70.78        | 66.93        | 105.82       | 66.88         | <b>77.60</b> |              |
| 3      | CoSe 01421   | 64.96        | 73.07        | 103.78       | 68.28         | <b>77.52</b> |              |
|        | <b>GM</b>  | <b>76.29</b> | <b>88.11</b> | <b>94.18</b> | <b>70.86</b>  | <b>82.36</b> |              |
|        | SE (m)   | 1.44         | 5.64         | 2.90         | 0.63          |              |              |
|        | CD   | 4.27         | 16.75        | 8.57         | 1.86          |              |              |
|        | CV   | 5.92         | 11.08        | 5.34         | 5.67          |              |              |
|        | <b>Top three qualifying entries at each location</b> |              |              |              |               |              |              |
|        | 1  | CoSe 17451   | CoP 17441    |              |               |              |              |
|        | 2  | CoSe 16454   | CoP 17440    |              |               |              |              |
|        | 3  | CoP 17437    | CoP 17437    |              |               |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoSe 16454 (2), CoP 17436 (1), CoP 17437 (1), CoP 17438 (1), CoP 17440 (1), CoP 17441 (1), CoSe 17451 (2)

**Performance across the locations:** The entry CoP 17441 (93.06 t/ha) recorded >10% improvement over the best standard CoLk 94184 (82.01 t/ha) for cane yield in the zone. Test entries CoP 17438 and CoP 17440 ranked second and third with 87.48 t/ha and 86.58 t/ha of mean cane yield and recorded 27.32% and 38.58% improvement over best standard at Pusa center

**Table 5.5.3. CCS (%) at harvest**

| S. No. | Entries  | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         | Overall rank |
|--------|--|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoSe 16454   | 12.15        | 11.80        | 11.85        | 12.59         | <b>12.10</b> |              |
| 2      | CoP 17436  | 11.79        | 11.42        | 11.46        | 12.53         | <b>11.80</b> |              |
| 3      | CoP 17437  | 11.89        | 12.61        | 11.73        | 12.35         | <b>12.15</b> | <b>2</b>     |
| 4      | CoP 17438  | 12.04        | 12.54        | 11.75        | 12.42         | <b>12.19</b> | <b>1</b>     |
| 5      | CoP 17440  | 11.51        | 11.71        | 10.67        | 12.32         | <b>11.55</b> |              |
| 6      | CoP 17441  | 11.39        | 11.69        | 11.11        | 12.55         | <b>11.69</b> |              |
| 7      | CoSe 17451   | 12.40        | 11.80        | 11.76        | 12.44         | <b>12.10</b> |              |
| 8      | CoBln 17501  | 10.88        | 10.79        | 11.19        | 11.56         | <b>11.11</b> |              |
|        | <b>Standards</b>                                     | -            |              |              |               |              |              |
| 1      | CoLk 94184   | 12.16        | 11.88        | 12           | 12.54         | <b>12.15</b> | <b>2</b>     |
| 2      | CoSe 95422   | 12.00        | 11.42        | 11.66        | 11.99         | <b>11.77</b> |              |
| 3      | CoSe 01421   | 12.08        | 12.21        | 11.83        | 12.35         | <b>12.12</b> | <b>3</b>     |
|        | <b>GM</b>  | <b>11.84</b> | <b>11.81</b> | <b>11.55</b> | <b>12.29</b>  | <b>11.87</b> |              |
|        | SE   | 0.15         | 0.20         | 0.33         | 0.03          |              |              |
|        | CD   | 0.44         | 0.60         | 0.96         | 0.09          |              |              |
|        | CV   | 2.16         | 2.95         | 4.90         | 2.37          |              |              |
|        | <b>Top three qualifying entries at each location</b> |              |              |              |               |              |              |
|        | 1  |              |              |              |               |              |              |
|        | 2  |              |              |              |               |              |              |
|        | 3  |              |              |              |               |              |              |

**No. of locations where an entry recorded >5% improvement: Nil**

**Performance across the locations:** The test entry CoP 17438 ranked top in the zone with 12.19% of mean CCS%. The entry CoP 17437 and standard CoLk 94184 ranked second across the locations with 12.15% of mean CCS%, followed by standard CoSe 01421 (12.12%). None of the test entries recorded >5% improvement over the best standard for CCS% in the zone.

**Table 5.5.4. Sucrose (%) at harvest**

| S. No.   | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         | Overall rank |
|--|------------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1  | CoSe 16454       | 17.60        | 17.12        | 17.02        | 18.15         | <b>17.47</b> |              |
| 2  | CoP 17436        | 17.04        | 16.55        | 16.50        | 18.11         | <b>17.05</b> |              |
| 3  | CoP 17437        | 17.18        | 18.25*       | 16.94        | 17.88         | <b>17.56</b> | <b>2</b>     |
| 4  | CoP 17438        | 17.41        | 18.06        | 17.00        | 17.96         | <b>17.61</b> | <b>1</b>     |
| 5  | CoP 17440        | 16.73        | 16.94        | 15.34        | 17.78         | <b>16.70</b> |              |
| 6  | CoP 17441        | 16.51        | 16.91        | 15.81        | 18.09         | <b>16.83</b> |              |
| 7  | CoSe 17451       | 17.92        | 16.80        | 16.78        | 17.93         | <b>17.36</b> |              |
| 8  | CoBln 17501      | 15.52        | 15.76        | 15.89        | 16.75         | <b>15.98</b> |              |
|  | <b>Standards</b> | -            |              |              |               |              |              |
| 1  | CoLk 94184       | 17.63        | 17.21        | 17.28        | 18.06         | <b>17.55</b> | <b>3</b>     |
| 2  | CoSe 95422       | 17.41        | 16.57        | 16.64        | 17.34         | <b>16.99</b> |              |
| 3  | CoSe 01421       | 17.53        | 17.45        | 17.12        | 17.85         | <b>17.49</b> |              |
|  | <b>GM</b>        | <b>17.13</b> | <b>17.06</b> | <b>16.57</b> | <b>17.75</b>  | <b>17.13</b> |              |
|  | SE               | 0.20         | 0.27         | 0.47         | 0.04          |              |              |
|  | CD               | 0.59         | 0.80         | 1.37         | 0.13          |              |              |
|  | CV               | 2.01         | 2.73         | 4.88         | 2.25          |              |              |
| <b>Top three qualifying entries at each location</b> |                  |              |              |              |               |              |              |
|  | 1                |              |              |              |               |              |              |
|  | 2                |              |              |              |               |              |              |
|  | 3                |              |              |              |               |              |              |

**No. of locations where an entry recorded >5% improvement:** Nil

**Performance across the locations:** The test entry CoP 17437 ranked top in the zone with 17.61% mean sucrose%. Another test entry CoP 17437 ranked second across the locations with 17.56% mean sucrose%, followed by the standard CoLk 94184 recording 17.55%. None of the test entries recorded >5% improvement over the best standard for sucrose% in the zone.

**Table 5.5.5. Brix (%) at harvest**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|
| 1      | CoSe 16454       | 19.97        | 19.50        | 18.98        | 20.42         | <b>19.72</b> |
| 2      | CoP 17436        | 19.24        | 18.80        | 18.51        | 20.47         | <b>19.26</b> |
| 3      | CoP 17437        | 19.40        | 20.70        | 19.11        | 20.27         | <b>19.87</b> |
| 4      | CoP 17438        | 19.70        | 20.27        | 19.24        | 20.33         | <b>19.89</b> |
| 5      | CoP 17440        | 19.14        | 19.2         | 17.15        | 20.04         | <b>18.88</b> |
| 6      | CoP 17441        | 18.77        | 19.13        | 17.31        | 20.32         | <b>18.88</b> |
| 7      | CoSe 17451       | 20.27        | 19.17        | 18.44        | 20.16         | <b>19.51</b> |
| 8      | CoBln 17501      | 17.80        | 18.20        | 17.26        | 19.03         | <b>18.07</b> |
|        | <b>Standards</b> | -            |              |              |               |              |
| 1      | CoLk 94184       | 20.05        | 19.57        | 19.38        | 20.25         | <b>19.81</b> |
| 2      | CoSe 95422       | 19.86        | 18.87        | 18.31        | 19.63         | <b>19.17</b> |
| 3      | CoSe 01421       | 19.99        | 19.6         | 19.38        | 20.18         | <b>19.79</b> |
|        | <b>GM</b>        | <b>19.47</b> | <b>19.36</b> | <b>18.46</b> | <b>20.02</b>  | <b>19.33</b> |
|        | SE               | 0.21         | 0.32         | 0.55         | 0.07          |              |
|        | CD               | 0.63         | 0.96         | 1.64         | 0.21          |              |
|        | CV               | 1.90         | 2.88         | 5.28         | 2.05          |              |

**Table 5.5.6. Purity (%) at harvest**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|
| 1      | CoSe 16454       | 88.14        | 87.8         | 89.69        | 88.88         | <b>88.63</b> |
| 2      | CoP 17436        | 88.53        | 88.1         | 89.11        | 88.47         | <b>88.55</b> |
| 3      | CoP 17437        | 88.56        | 88.3         | 88.65        | 88.21         | <b>88.43</b> |
| 4      | CoP 17438        | 88.37        | 89.1         | 88.33        | 88.34         | <b>88.54</b> |
| 5      | CoP 17440        | 87.40        | 88.2         | 89.37        | 88.72         | <b>88.42</b> |
| 6      | CoP 17441        | 87.97        | 88.4         | 91.34        | 89.03         | <b>89.19</b> |
| 7      | CoSe 17451       | 88.42        | 87.6         | 91.05        | 88.94         | <b>89.00</b> |
| 8      | CoBln 17501      | 87.63        | 86.7         | 92.04        | 88.02         | <b>88.60</b> |
|        | <b>Standards</b> | -            |              |              |               |              |
| 1      | CoLk 94184       | 87.9         | 88.1         | 89.17        | 89.19         | <b>88.59</b> |
| 2      | CoSe 95422       | 87.68        | 87.8         | 91.01        | 88.33         | <b>88.71</b> |
| 3      | CoSe 01421       | 87.71        | 89.1         | 88.34        | 88.45         | <b>88.40</b> |
|        | <b>GM</b>        | <b>88.03</b> | <b>88.11</b> | <b>89.83</b> | <b>88.66</b>  | <b>88.66</b> |
|        | SE               | 0.31         | 0.44         | 0.92         | 0.19          |              |
|        | CD               | 0.92         | 1.3          | 2.73         | 0.56          |              |
|        | CV               | 0.61         | 0.86         | 1.78         | 0.50          |              |

**Table 5.5.7. Pol % cane at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|--------------|
| 1      | CoSe 16454       |         | 13.24        | 13.10        |               | <b>13.17</b> |
| 2      | CoP 17436        |         | 12.89        | 12.79        |               | <b>12.84</b> |
| 3      | CoP 17437        |         | 14.22        | 13.09        |               | <b>13.66</b> |
| 4      | CoP 17438        |         | 13.98        | 13.11        |               | <b>13.55</b> |
| 5      | CoP 17440        |         | 13.12        | 11.89        |               | <b>12.51</b> |
| 6      | CoP 17441        |         | 13.11        | 12.21        |               | <b>12.66</b> |
| 7      | CoSe 17451       |         | 12.95        | 13.06        |               | <b>13.01</b> |
| 8      | CoBln 17501      |         | 12.16        | 12.31        |               | <b>12.24</b> |
|        | <b>Standards</b> |         |              |              |               |              |
| 1      | CoLk 94184       |         | 13.23        | 13.45        |               | <b>13.34</b> |
| 2      | CoSe 95422       |         | 12.79        | 12.99        |               | <b>12.89</b> |
| 3      | CoSe 01421       |         | 13.53        | 13.23        |               | <b>13.38</b> |
|        | <b>GM</b>        |         | <b>13.20</b> | <b>12.74</b> |               | <b>12.97</b> |
|        | SE               |         | 0.70         | 0.37         |               |              |
|        | CD               |         | 2.19         | 1.08         |               |              |
|        | CV               |         | 8.99         | 4.94         |               |              |

**Table 5.5.8. Extraction (%) at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|--------------|
| 1      | CoSe 16454       |         | 56.60        | 60.80        |               | <b>58.70</b> |
| 2      | CoP 17436        |         | 57.30        | 62.26        |               | <b>59.78</b> |
| 3      | CoP 17437        |         | 61.20        | 62.50        |               | <b>61.85</b> |
| 4      | CoP 17438        |         | 60.80        | 62.81        |               | <b>61.81</b> |
| 5      | CoP 17440        |         | 61.20        | 62.67        |               | <b>61.94</b> |
| 6      | CoP 17441        |         | 61.80        | 58.39        |               | <b>60.10</b> |
| 7      | CoSe 17451       |         | 55.30        | 60.75        |               | <b>58.03</b> |
| 8      | CoBln 17501      |         | 52.60        | 60.32        |               | <b>56.46</b> |
|        | <b>Standards</b> |         |              |              |               |              |
| 1      | CoLk 94184       |         | 55.40        | 63.48        |               | <b>59.44</b> |
| 2      | CoSe 95422       |         | 56.20        | 58.18        |               | <b>57.19</b> |
| 3      | CoSe 01421       |         | 57.60        | 59.50        |               | <b>58.55</b> |
|        | <b>GM</b>        |         | <b>57.82</b> | <b>61.06</b> |               | <b>59.44</b> |
|        | SE               |         | 1.55         | 1.88         |               |              |
|        | CD               |         | 4.59         | 5.56         |               |              |
|        | CV               |         | 4.63         | 5.35         |               |              |

**Table 5.5.9. Fibre (%) at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|--------------|
| 1      | CoSe 16454       |         | 12.65        | 13.04        |               | <b>12.85</b> |
| 2      | CoP 17436        |         | 12.1         | 12.48        |               | <b>12.29</b> |
| 3      | CoP 17437        |         | 12.15        | 12.71        |               | <b>12.43</b> |
| 4      | CoP 17438        |         | 12.6         | 12.91        |               | <b>12.76</b> |
| 5      | CoP 17440        |         | 12.55        | 12.46        |               | <b>12.51</b> |
| 6      | CoP 17441        |         | 12.5         | 12.81        |               | <b>12.66</b> |
| 7      | CoSe 17451       |         | 12.9         | 12.17        |               | <b>12.54</b> |
| 8      | CoBln 17501      |         | 12.85        | 12.54        |               | <b>12.70</b> |
|        | <b>Standards</b> |         |              |              |               |              |
| 1      | CoLk 94184       |         | 13.1         | 12.17        |               | <b>12.64</b> |
| 2      | CoSe 95422       |         | 12.85        | 11.94        |               | <b>12.40</b> |
| 3      | CoSe 01421       |         | 12.45        | 12.75        |               | <b>12.60</b> |
|        | <b>GM</b>        |         | <b>12.61</b> | <b>12.54</b> |               | <b>12.58</b> |
|        | SE               |         | 0.18         | 0.22         |               |              |
|        | CD               |         | 0.52         | 0.65         |               |              |
|        | CV               |         | 2.41         | 5.04         |               |              |

**Table 5.5.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Entries          | Seorahi       | Pusa          | Motipur       | Bethua dahari | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|---------------|
| 1      | CoSe 16454       | 138.00        | 98.35         | 136.96        | 121.15        | <b>123.62</b> |
| 2      | CoP 17436        | 125.00        | 101.29        | 113.80        | 114.77        | <b>113.72</b> |
| 3      | CoP 17437        | 131.00        | 105.83        | 84.73         | 122.47        | <b>111.01</b> |
| 4      | CoP 17438        | 130.00        | 101.56        | 112.90        | 115.97        | <b>115.11</b> |
| 5      | CoP 17440        | 128.00        | 115.65        | 105.66        | 113.40        | <b>115.68</b> |
| 6      | CoP 17441        | 127.00        | 118.26        | 132.53        | 121.80        | <b>124.90</b> |
| 7      | CoSe 17451       | 134.00        | 103.52        | 111.93        | 122.50        | <b>117.99</b> |
| 8      | CoBln 17501      | 117.00        | 82.32         | 93.97         | 113.18        | <b>101.62</b> |
|        | <b>Standards</b> | -             |               |               |               |               |
| 1      | CoLk 94184       | 129.00        | 103.69        | 123.07        | 125.09        | <b>120.21</b> |
| 2      | CoSe 95422       | 123.00        | 101.25        | 146.40        | 108.61        | <b>119.82</b> |
| 3      | CoSe 01421       | 116.00        | 97.67         | 153.80        | 113.03        | <b>120.13</b> |
|        | <b>GM</b>        | <b>187.00</b> | <b>102.67</b> | <b>119.61</b> | <b>115.58</b> | <b>131.22</b> |
|        | SE               | 2.35          | 6.13          | 3.02          | 1.24          |               |
|        | CD               | 6.94          | 18.20         | 8.92          | 3.66          |               |
|        | CV               | 5.78          | 10.34         | 4.38          | 4.61          |               |



**Table 5.5.11. Stalk Length (cm) at harvest**

| S. No. | Entries          | Seorahi       | Pusa          | Motipur       | Bethua dahari | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|---------------|
| 1      | CoSe 16454       | 216.00        | 254.00        | 325.00        | 260.33        | <b>263.83</b> |
| 2      | CoP 17436        | 218.00        | 290.67        | 263.30        | 257.67        | <b>257.41</b> |
| 3      | CoP 17437        | 221.00        | 295.00        | 248.30        | 269.33        | <b>258.41</b> |
| 4      | CoP 17438        | 218.00        | 289.00        | 280.00        | 247.33        | <b>258.58</b> |
| 5      | CoP 17440        | 210.00        | 287.33        | 328.30        | 245.33        | <b>267.74</b> |
| 6      | CoP 17441        | 205.00        | 301.00        | 281.60        | 250.00        | <b>259.40</b> |
| 7      | CoSe 17451       | 221.00        | 274.67        | 308.30        | 262.33        | <b>266.58</b> |
| 8      | CoBln 17501      | 172.00        | 281.00        | 348.30        | 237.67        | <b>259.74</b> |
|        | <b>Standards</b> | -             |               |               |               |               |
| 1      | CoLk 94184       | 211.00        | 275.00        | 325.00        | 273.67        | <b>271.17</b> |
| 2      | CoSe 95422       | 196.00        | 267.67        | 300.00        | 217.33        | <b>245.25</b> |
| 3      | CoSe 01421       | 181.00        | 265.00        | 277.00        | 220.00        | <b>235.75</b> |
|        | <b>GM</b>        | <b>206.00</b> | <b>280.03</b> | <b>298.63</b> | <b>237.00</b> | <b>255.42</b> |
|        | SE               | 0.05          | 14.45         | 13.01         | 3.22          |               |
|        | CD               | 0.15          | 45.52         | 38.38         | 9.49          |               |
|        | CV               | 4.17          | 8.94          | 7.54          | 7.26          |               |

**Table 5.5.12. Stalk Diameter (cm) at harvest**

| S. No. | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Mean        |
|--------|------------------|-------------|-------------|-------------|---------------|-------------|
| 1      | CoSe 16454       | 2.20        | 2.40        | 2.36        | 2.14          | <b>2.28</b> |
| 2      | CoP 17436        | 2.10        | 2.48        | 2.06        | 2.26          | <b>2.23</b> |
| 3      | CoP 17437        | 2.10        | 2.50        | 2.36        | 2.19          | <b>2.29</b> |
| 4      | CoP 17438        | 2.20        | 2.42        | 2.30        | 2.28          | <b>2.30</b> |
| 5      | CoP 17440        | 2.10        | 2.56        | 2.20        | 2.28          | <b>2.29</b> |
| 6      | CoP 17441        | 2.20        | 2.64        | 2.06        | 2.19          | <b>2.27</b> |
| 7      | CoSe 17451       | 2.20        | 2.32        | 2.26        | 2.29          | <b>2.27</b> |
| 8      | CoBln 17501      | 2.00        | 2.46        | 2.23        | 2.09          | <b>2.20</b> |
|        | <b>Standards</b> | -           |             |             |               |             |
| 1      | CoLk 94184       | 2.10        | 2.15        | 2.06        | 2.30          | <b>2.15</b> |
| 2      | CoSe 95422       | 2.00        | 2.36        | 2.03        | 2.01          | <b>2.10</b> |
| 3      | CoSe 01421       | 1.90        | 2.20        | 2.06        | 2.15          | <b>2.08</b> |
|        | <b>GM</b>        | <b>2.10</b> | <b>2.41</b> | <b>2.18</b> | <b>2.15</b>   | <b>2.21</b> |
|        | SE               | 0.05        | 0.12        | 0.09        | 0.03          |             |
|        | CD               | 0.15        | 0.38        | 0.28        | 0.10          |             |
|        | CV               | 3.98        | 8.64        | 7.63        | 4.74          |             |

**Table 5.5.13. Single Cane Weight (kg.) at harvest**

| S. No. | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Mean        |
|--------|------------------|-------------|-------------|-------------|---------------|-------------|
| 1      | CoSe 16454       | 0.65        | 0.88        | 1.23        | 0.62          | <b>0.84</b> |
| 2      | CoP 17436        | 0.63        | 0.91        | 0.96        | 0.65          | <b>0.79</b> |
| 3      | CoP 17437        | 0.64        | 0.98        | 0.90        | 0.61          | <b>0.78</b> |
| 4      | CoP 17438        | 0.64        | 0.96        | 1.00        | 0.65          | <b>0.81</b> |
| 5      | CoP 17440        | 0.62        | 0.92        | 1.08        | 0.65          | <b>0.82</b> |
| 6      | CoP 17441        | 0.64        | 1.02        | 0.84        | 0.72          | <b>0.81</b> |
| 7      | CoSe 17451       | 0.67        | 0.82        | 1.20        | 0.71          | <b>0.85</b> |
| 8      | CoBln 17501      | 0.44        | 0.76        | 1.15        | 0.69          | <b>0.76</b> |
|        | <b>Standards</b> | -           |             |             |               |             |
| 1      | CoLk 94184       | 0.61        | 0.74        | 0.97        | 0.81          | <b>0.78</b> |
| 2      | CoSe 95422       | 0.59        | 0.68        | 0.95        | 0.61          | <b>0.71</b> |
| 3      | CoSe 01421       | 0.59        | 0.72        | 0.91        | 0.64          | <b>0.71</b> |
|        | <b>GM</b>        | <b>0.61</b> | <b>0.85</b> | <b>1.02</b> | <b>0.69</b>   | <b>0.79</b> |
|        | SE               | 0.01        | 0.04        | 0.08        | 0.02          |             |
|        | CD               | 0.02        | 0.13        | 0.24        | 0.05          |             |
|        | CV               | 2.05        | 8.95        | 11.43       | 9.30          |             |

**Table 5.5.14. CCS (%) at 240 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|
| 1      | CoSe 16454       | 12.05        | 11.15        | 10.48        | 11.91         | <b>11.40</b> |
| 2      | CoP 17436        | 10.76        | 11.07        | 10.58        | 11.80         | <b>11.05</b> |
| 3      | CoP 17437        | 11.68        | 11.21        | 10.45        | 11.62         | <b>11.24</b> |
| 4      | CoP 17438        | 11.77        | 11.04        | 10.91        | 11.49         | <b>11.30</b> |
| 5      | CoP 17440        | 10.84        | 11.00        | 9.26         | 11.73         | <b>10.71</b> |
| 6      | CoP 17441        | 10.72        | 11.19        | 9.01         | 11.86         | <b>10.70</b> |
| 7      | CoSe 17451       | 11.42        | 10.68        | 9.89         | 11.75         | <b>10.94</b> |
| 8      | CoBln 17501      | 10.61        | 10.44        | 8.63         | 10.86         | <b>10.14</b> |
|        | <b>Standards</b> | -            |              |              |               |              |
| 1      | CoLk 94184       | 11.96        | 11.39        | 10.59        | 11.82         | <b>11.44</b> |
| 2      | CoSe 95422       | 11.24        | 11.15        | 9.73         | 11.33         | <b>10.86</b> |
| 3      | CoSe 01421       | 11.69        | 11.37        | 11.47        | 11.57         | <b>11.53</b> |
|        | <b>GM</b>        | <b>11.34</b> | <b>11.06</b> | <b>10.09</b> | <b>11.57</b>  | <b>11.02</b> |
|        | SE               | 0.15         | 0.14         | 0.39         | 0.04          |              |
|        | CD               | 0.45         | 0.41         | 1.14         | 0.12          |              |
|        | CV               | 2.33         | 2.17         | 6.65         | 2.54          |              |

**Table 5.5.15. Sucrose (%) at 240 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|
| 1      | CoSe 16454       | 17.45        | 16.26        | 15.19        | 17.41         | <b>16.58</b> |
| 2      | CoP 17436        | 15.69        | 16.1         | 15.27        | 17.23         | <b>16.07</b> |
| 3      | CoP 17437        | 16.93        | 16.35        | 15.16        | 17.04         | <b>16.37</b> |
| 4      | CoP 17438        | 17.05        | 16.1         | 15.65        | 16.84         | <b>16.41</b> |
| 5      | CoP 17440        | 15.79        | 16.01        | 13.37        | 17.16         | <b>15.58</b> |
| 6      | CoP 17441        | 15.62        | 16.36        | 13.03        | 17.33         | <b>15.59</b> |
| 7      | CoSe 17451       | 16.59        | 15.71        | 14.29        | 17.15         | <b>15.94</b> |
| 8      | CoBln 17501      | 15.42        | 15.27        | 12.43        | 15.94         | <b>14.77</b> |
|        | <b>Standards</b> | -            |              |              |               |              |
| 1      | CoLk 94184       | 17.30        | 16.56        | 15.22        | 17.27         | <b>16.59</b> |
| 2      | CoSe 95422       | 16.33        | 16.26        | 14.02        | 16.62         | <b>15.81</b> |
| 3      | CoSe 01421       | 16.92        | 16.55        | 16.42        | 16.93         | <b>16.71</b> |
|        | <b>GM</b>        | <b>16.46</b> | <b>16.14</b> | <b>15.55</b> | <b>16.94</b>  | <b>16.27</b> |
|        | SE               | 0.21         | 0.2          | 0.53         | 0.06          |              |
|        | CD               | 0.61         | 0.6          | 1.58         | 0.17          |              |
|        | CV               | 2.16         | 2.18         | 6.41         | 2.39          |              |

**Table 5.5.16. Brix (%) at 240 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|
| 1      | CoSe 16454       | 19.82        | 18.73        | 17.26        | 20.15         | <b>18.99</b> |
| 2      | CoP 17436        | 18.03        | 18.43        | 17.21        | 19.89         | <b>18.39</b> |
| 3      | CoP 17437        | 19.24        | 18.83        | 17.28        | 19.86         | <b>18.80</b> |
| 4      | CoP 17438        | 19.34        | 18.53        | 17.40        | 19.59         | <b>18.72</b> |
| 5      | CoP 17440        | 17.98        | 18.37        | 15.08        | 19.90         | <b>17.83</b> |
| 6      | CoP 17441        | 17.98        | 18.93        | 14.75        | 20.05         | <b>17.93</b> |
| 7      | CoSe 17451       | 18.94        | 18.40        | 16.15        | 19.80         | <b>18.32</b> |
| 8      | CoBln 17501      | 17.64        | 17.70        | 13.97        | 18.60         | <b>16.98</b> |
|        | <b>Standards</b> | -            |              |              |               |              |
| 1      | CoLk 94184       | 19.57        | 18.97        | 17.00        | 19.95         | <b>18.87</b> |
| 2      | CoSe 95422       | 18.65        | 18.73        | 15.72        | 19.37         | <b>18.12</b> |
| 3      | CoSe 01421       | 19.18        | 18.97        | 18.17        | 19.64         | <b>18.99</b> |
|        | <b>GM</b>        | <b>18.76</b> | <b>18.60</b> | <b>16.36</b> | <b>19.65</b>  | <b>18.34</b> |
|        | SE               | 0.20         | 0.27         | 0.57         | 0.09          |              |
|        | CD               | 0.60         | 0.84         | 1.69         | 0.26          |              |
|        | CV               | 1.88         | 2.48         | 6.07         | 2.17          |              |

**Table 5.5.17. Purity (%) at 240 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|
| 1      | CoSe 16454       | 88.08        | 86.50        | 88.00        | 86.40         | <b>87.25</b> |
| 2      | CoP 17436        | 86.98        | 87.20        | 88.73        | 86.63         | <b>87.39</b> |
| 3      | CoP 17437        | 87.99        | 87.00        | 88.72        | 85.80         | <b>87.38</b> |
| 4      | CoP 17438        | 88.12        | 86.90        | 89.93        | 85.96         | <b>87.73</b> |
| 5      | CoP 17440        | 87.55        | 87.20        | 88.66        | 86.23         | <b>87.41</b> |
| 6      | CoP 17441        | 86.88        | 86.80        | 88.38        | 86.43         | <b>87.12</b> |
| 7      | CoSe 17451       | 87.56        | 87.33        | 88.45        | 86.62         | <b>87.49</b> |
| 8      | CoBln 17501      | 87.43        | 85.20        | 88.99        | 85.70         | <b>86.83</b> |
|        | <b>Standards</b> | -            |              |              |               |              |
| 1      | CoLk 94184       | 88.40        | 87.30        | 89.47        | 86.57         | <b>87.94</b> |
| 2      | CoSe 95422       | 87.57        | 86.70        | 89.15        | 85.80         | <b>87.31</b> |
| 3      | CoSe 01421       | 88.22        | 87.20        | 90.32        | 86.20         | <b>87.99</b> |
|        | <b>GM</b>        | <b>87.71</b> | <b>86.85</b> | <b>88.89</b> | <b>86.19</b>  | <b>87.41</b> |
|        | SE               | 0.31         | 0.39         | 0.60         | 0.25          |              |
|        | CD               | 0.92         | 1.16         | 1.77         | 0.72          |              |
|        | CV               | 0.62         | 0.78         | 1.17         | 0.57          |              |

**Table 5.5.18. Number of Shoots (\*000/ha) at 240 days**

| S. No. | Entries          | Seorahi | Pusa          | Motipur       | Bethua dahari | Mean          |
|--------|------------------|---------|---------------|---------------|---------------|---------------|
| 1      | CoSe 16454       |         | 145.38        | 149.77        | 128.24        | <b>141.13</b> |
| 2      | CoP 17436        |         | 154.33        | 123.27        | 121.59        | <b>133.06</b> |
| 3      | CoP 17437        |         | 151.76        | 101.73        | 130.30        | <b>127.93</b> |
| 4      | CoP 17438        |         | 131.82        | 134.20        | 122.45        | <b>129.49</b> |
| 5      | CoP 17440        |         | 142.79        | 123.43        | 119.71        | <b>128.64</b> |
| 6      | CoP 17441        |         | 158.32        | 155.50        | 128.27        | <b>147.36</b> |
| 7      | CoSe 17451       |         | 139.56        | 128.43        | 128.32        | <b>132.10</b> |
| 8      | CoBln 17501      |         | 121.21        | 109.73        | 119.13        | <b>116.69</b> |
|        | <b>Standards</b> |         |               |               |               |               |
| 1      | CoLk 94184       |         | 142.97        | 141.43        | 131.50        | <b>138.63</b> |
| 2      | CoSe 95422       |         | 129.85        | 169.40        | 116.64        | <b>138.63</b> |
| 3      | CoSe 01421       |         | 135.39        | 176.80        | 119.47        | <b>143.89</b> |
|        | <b>GM</b>        |         | <b>141.22</b> | <b>137.60</b> | <b>122.54</b> | <b>133.79</b> |
|        | SE               |         | 7.97          | 20.23         | 1.42          |               |
|        | CD               |         | 25.11         | 6.86          | 4.20          |               |
|        | CV               |         | 9.78          | 5.54          | 4.39          |               |

**Table 5.5.19. Number of Tillers ('000/ha) at 120 days**

| S. No. | Entries          | Seorahi       | Pusa          | Motipur       | Bethua dahari | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|---------------|
| 1      | CoSe 16454       | 194.00        | 98.10         | 163.83        | 119.98        | <b>143.98</b> |
| 2      | CoP 17436        | 177.00        | 115.60        | 136.60        | 114.48        | <b>135.92</b> |
| 3      | CoP 17437        | 181.00        | 118.33        | 120.43        | 122.94        | <b>135.68</b> |
| 4      | CoP 17438        | 186.00        | 112.70        | 167.73        | 114.16        | <b>145.15</b> |
| 5      | CoP 17440        | 189.00        | 116.23        | 140.30        | 111.85        | <b>139.35</b> |
| 6      | CoP 17441        | 184.00        | 122.58        | 200.16        | 120.56        | <b>156.83</b> |
| 7      | CoSe 17451       | 190.00        | 102.66        | 136.40        | 119.72        | <b>137.20</b> |
| 8      | CoBln 17501      | 165.00        | 78.25         | 142.33        | 108.89        | <b>123.62</b> |
|        | <b>Standards</b> | -             |               |               |               |               |
| 1      | CoLk 94184       | 181.00        | 105.10        | 171.96        | 122.71        | <b>145.19</b> |
| 2      | CoSe 95422       | 179.00        | 104.60        | 196.10        | 106.38        | <b>146.52</b> |
| 3      | CoSe 01421       | 168.00        | 101.38        | 215.53        | 112.03        | <b>149.24</b> |
|        | <b>GM</b>        | <b>181.00</b> | <b>106.87</b> | <b>162.85</b> | <b>113.71</b> | <b>141.11</b> |
|        | SE               | 2.53          | 4.75          | 6.85          | 1.74          |               |
|        | CD               | 7.48          | 14.10         | 20.23         | 5.15          |               |
|        | CV               | 4.37          | 7.70          | 7.29          | 5.19          |               |

**Table 5.5.20. Germination (%) at 45 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|
| 1      | CoSe 16454       | 58.75        | 37.12        | 38.77        | 32.41         | <b>41.76</b> |
| 2      | CoP 17436        | 47.36        | 41.33        | 23.96        | 32.32         | <b>36.24</b> |
| 3      | CoP 17437        | 54.03        | 42.66        | 16.56        | 33.54         | <b>36.70</b> |
| 4      | CoP 17438        | 47.64        | 39.33        | 27.20        | 31.59         | <b>36.44</b> |
| 5      | CoP 17440        | 55.69        | 41.38        | 24.73        | 32.75         | <b>38.64</b> |
| 6      | CoP 17441        | 50.97        | 44.33        | 39.90        | 33.58         | <b>42.20</b> |
| 7      | CoSe 17451       | 56.25        | 38.10        | 41.90        | 32.27         | <b>42.13</b> |
| 8      | CoBln 17501      | 42.22        | 26.33        | 28.10        | 31.45         | <b>32.03</b> |
|        | <b>Standards</b> | -            |              |              |               |              |
| 1      | CoLk 94184       | 49.72        | 41.15        | 26.03        | 33.67         | <b>37.64</b> |
| 2      | CoSe 95422       | 50.14        | 37.33        | 37.50        | 30.61         | <b>38.90</b> |
| 3      | CoSe 01421       | 50.69        | 39.21        | 32.40        | 35.38         | <b>39.42</b> |
|        | <b>GM</b>        | <b>51.22</b> | <b>38.93</b> | <b>30.64</b> | <b>33.22</b>  | <b>38.50</b> |
|        | SE               | 0.84         | 1.64         | 2.64         | 0.89          |              |
|        | CD               | 2.46         | 4.86         | 7.79         | 2.62          |              |
|        | CV               | 6.78         | 7.28         | 9.92         | 5.47          |              |

**Table 5.5.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| <b>Entry /<br/>Locations</b>                | <b>Seorahi</b> | <b>Pusa</b> | <b>Motipur</b> | <b>Bethuadhari</b> | <b>Buralikson*</b> |
|---|----------------|-------------|----------------|--------------------|--------------------|
| CoP17436                                    | Average        | Very Good   | Excellent      | Good               | Not conducted      |
| CoP17437                                    | Good           | Very good   | Good           | Good               | Not conducted      |
| CoP17438                                    | Good           | Very Good   | Very good      | Good               | Not conducted      |
| CoP17440                                    | Average        | Very Good   | Good           | Good               | Not conducted      |
| CoP17441                                    | Average        | Very Good   | Good           | Good               | Not conducted      |
| CoSe16454                                   | Good           | Very Good   | Very good      | Very good          | Not conducted      |
| CoSe17451                                   | Good           | Very Good   | Excellent      | Very good          | Not conducted      |
| CoBln17501                                  | Very Poor      | Good        | Good           | Good               | Not conducted      |
| <b>Standards</b>                            |                |             |                |                    |                    |
| CoLk 94184                                  | Very good      | Good        | Very good      | Good               | Not conducted      |
| CoSe95422                                   | Good           | Good        | Very good      | Good               | Not conducted      |
| CoSe01421                                   | Good           | Good        | Good           | Good               | Not conducted      |
| Overall<br>Performance of<br>the Experiment | Good           | Very Good   | Excellent      | Good               | Not conducted      |

## 5.6. ADVANCED VARIETAL TRIAL (MIDLATE) – II PLANT

|                         |   |
|-------------------------|---|
| <b>Centers (5)</b>      | Bethuadahari, Buralikson, Motipur, Pusa and Seorahi                             |
| <b>Entries (7)</b>      | CoP 15438, CoP 15439, CoP 15440, CoSe 15453, CoSe 15454, CoLk 15468, CoLk 15469 |
| <b>Standards (3)</b>    | BO 91, CoP 9301 and CoP 06436   |
| <b>Design</b>           | RBD   |
| <b>Replications</b>     | Three   |
| <b>Plot size</b>        | Gross : 6 m x 8 rows x 0.90 m<br>Net : 5 m x 6 rows x 0.90 m                    |
| <b>Seed rate</b>        | 12 buds per meter   |
| <b>Date of planting</b> | February - March, 2020  |
| <b>Crop duration</b>    | 12 months   |

**Results of the previous year:** Seven test entries and three standards were evaluated in AVT (Midlate) I plant at five locations of North Central and North East zones during 2019-20 for cane yield and juice quality parameters. The test entry CoP 15453 ranked top in the zone with 13.93% improvement for CCS yield over the best standards across the locations and it also recorded 37.49% and 21.88% improvement over the best standard at Seorahi and Motipur centers respectively. For cane yield, the test entry CoP 15453 ranked top in the zone with 15.43% improvement for cane yield over best standard across the locations and it also recorded 28.32%, 11.05% and 24.75% improvement over best standard at Seorahi, Motipur and Pusa centers respectively. For CCS%, none of the test entries recorded >5% improvement in the zone. The standard CoP 9301 recorded top in the zone with 12.72% of mean CCS% across locations. The entry CoP 15439 and CoP 15438 ranked second and third in the zone with 12.59% and 12.55% of mean CCS% respectively. For sucrose%, none of the test entries recorded >5% improvement in the zone. The standard CoP 9301 ranked top in the zone with 18.48% mean sucrose. The entries CoLk 15468 and CoLk 15469 ranked second and third in the zone with 18.32% and 18.29% mean sucrose% respectively. Considering both cane yield and juice quality, CoSe 15453 recorded >10% improvement for cane yield and found to be numerically superior compared to best standard CoP 06436 and it is identified as qualifying entry in the zone.

**Results of the current year:**

Seven test entries and three standards were evaluated in AVT (Midlate) II plant at five locations of North Central and North East zones during 2020-21 for cane yield and juice quality parameters. None of the test entries recorded >10% improvement over the best standard across the zone for CCS yield. The test entry CoSe 15453 ranked top in the zone with 10.94 t/ha mean CCS yield across locations and it also recorded 50.81% and 16.85% improvement over best standard at Seorahi and Pusa centers respectively. The test entry CoP 15440 ranked second in the zone with mean value of 10.56 t/ha and CoSe 15454 ranked third in the zone with a mean of 10.50 t/ha. None of the test entries recorded >10% improvement over the best standard across the zone for cane yield. The test entry CoSe 15453 ranked top in the zone with 89.91 t/ha mean cane yield across locations and it also recorded 34.44% and 15.83% improvement over best standard at Seorahi and Pusa centers respectively. The test entry CoSe 15454 ranked second in the zone with mean value of 88.82 t/ha and CoP 15440 ranked third in the zone with a mean of 87.36 t/ha. None of the test entries recorded >5% improvement over the best standard across the zone for CCS%. The standard CoP 9301 ranked top in the zone with 12.36% of mean CCS across locations. The test entry CoLk 15469 recorded second with 12.35% mean CCS, followed by CoSe 15453 with 12.11% mean CCS%. None of the test entries recorded >5% improvement over the best standard across the zone for sucrose. The standard CoP 9301 ranked top in the zone with 17.94% mean sucrose across locations. The entry CoLk 151469 recorded second with 17.91% mean sucrose, followed by CoSe 15453 with 17.56% sucrose. On comparing with best standard CoP 9301, none of entries was found to be qualifying as they have not recorded > 10% improvement in cane yield or 5% improvement in sucrose content.

**The data are presented in table 5.6.1 to 5.6.20.**

**Table 5.6.1. CCS (t/ha) at harvest**

| S. No.  | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buraik son  | Mean         | Overall rank |
|---|------------------|--------------|--------------|--------------|---------------|-------------|--------------|--------------|
| 1   | CoP 15438        | 9.35         | 10.33        | 10.45        | 8.79          | 8.55        | <b>9.49</b>  |              |
| 2   | CoP 15439        | 10.02        | 12.94*       | 12.28        | 8.77          | 8.35        | <b>10.47</b> |              |
| 3   | CoP 15440        | 9.87         | 14.35*       | 9.11         | 8.90          | 10.55       | <b>10.56</b> | <b>2</b>     |
| 4   | CoSe 15453       | 13.98*       | 11.93        | 11.01        | 9.07          | 8.70        | <b>10.94</b> | <b>1</b>     |
| 5   | CoSe 15454       | 11.89*       | 10.58        | 10.41        | 9.12          | -           | <b>10.50</b> | <b>3</b>     |
| 6   | CoLk 15468       | 10.05        | 8.04         | 8.60         | 8.84          | 9.12        | <b>8.93</b>  |              |
| 7   | CoLk 15469       | 9.47         | 9.18         | 6.19         | 8.80          | 8.52        | <b>8.43</b>  |              |
|   | <b>Standards</b> | -            |              |              |               |             |              |              |
| 1   | BO 91            | 9.27         | 9.39         | 10.84        | 8.85          | 9.65        | <b>9.60</b>  |              |
| 2   | CoP 9301         | 8.75         | 9.45         | 13.93        | 8.75          | 10.02       | <b>10.18</b> |              |
| 3   | CoP 06436        | 9.10         | 10.21        | 9.84         | 8.94          | 8.02        | <b>9.22</b>  |              |
|   | <b>GM</b>        | <b>10.18</b> | <b>10.64</b> | <b>10.27</b> | <b>8.88</b>   | <b>9.05</b> | <b>9.83</b>  |              |
|   | SE               | 0.38         | 0.61         | 0.21         | 0.09          | 0.69        |              |              |
|   | CD               | 1.13         | 1.82         | 0.64         | 0.27          | 1.43        |              |              |
|   | CV               | 6.46         | 9.91         | 3.60         | 1.95          | 9.28        |              |              |
| <b>Top three qualifying entries at each locations</b> |                  |              |              |              |               |             |              |              |
|   | 1                | CoSe 15453   | CoP 15440    |              |               |             |              |              |
|   | 2                | CoSe 15454   | CoP 15439    |              |               |             |              |              |
|   | 3                |              | CoSe 15453   |              |               |             |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoSe 15453 (2), CoP 15439 (1), CoP 15440 (1), CoSe 15454 (1).

**Performance across the locations:** None of the test entries recorded >10% improvement over the best standard across the zone for CCS yield. The test entry CoSe 15453 ranked top in the zone with 10.94 t/ha mean CCS yield across locations and it also recorded 50.81% and 16.85% improvement over best standard at Seorahi and Pusa centers respectively. The test entry CoP 15440 ranked second in the zone with mean value of 10.56 t/ha and recorded 40.55% improvement over best standard at Pusa center. Another test entry CoSe 15454 ranked third in the zone with a mean of 10.50 t/ha with an improvement of 28.26% over best standard at Pusa centre.



**Table 5.6.2. Cane yield (t/ha) at harvest**

| S. No.  | Entries          | Seorahi      | Pusa         | Moti pur     | Bethua dahari | Buralik son  | Mean         | Overall rank |
|---|------------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| 1   | CoP 15438        | 81.38        | 85.17        | 92.80        | 72.87         | 71.47        | <b>80.74</b> |              |
| 2   | CoP 15439        | 84.58*       | 105.76*      | 107.12       | 72.11         | 65.90        | <b>87.09</b> |              |
| 3   | CoP 15440        | 78.90        | 117.48*      | 82.30        | 73.21         | 84.93        | <b>87.36</b> | <b>3</b>     |
| 4   | CoSe 15453       | 105.71*      | 98.22        | 95.99        | 75.44         | 74.17        | <b>89.91</b> | <b>1</b>     |
| 5   | CoSe 15454       | 98.94*       | 88.52        | 92.18        | 75.64         |              | <b>88.82</b> | <b>2</b>     |
| 6   | CoLk 15468       | 78.03        | 67.02        | 77.87        | 74.47         | 72.10        | <b>73.90</b> |              |
| 7   | CoLk 15469       | 72.16        | 75.62        | 53.46        | 73.01         | 66.23        | <b>68.10</b> |              |
|   | <b>Standards</b> | -            |              |              |               |              |              |              |
| 1   | BO 91            | 78.63        | 79.50        | 104.85       | 74.64         | 78.30        | <b>83.18</b> |              |
| 2   | CoP 9301         | 67.20        | 75.87        | 121.54       | 70.25         | 80.83        | <b>83.14</b> |              |
| 3   | CoP 06436        | 72.69        | 84.80        | 90.64        | 78.37         | 63.50        | <b>78.00</b> |              |
|   | <b>GM</b>        | <b>81.82</b> | <b>87.80</b> | <b>91.88</b> | <b>74.00</b>  | <b>73.05</b> | <b>82.02</b> |              |
|   | SE               | 1.12         | 4.92         | 1.83         | 0.77          | 5.33         |              |              |
|   | CD               | 3.33         | 14.73        | 5.43         | 2.28          | 11.08        |              |              |
|   | CV               | 6.40         | 9.71         | 6.44         | 3.19          | 8.93         |              |              |
| <b>Top three qualifying entries at each locations</b> |                  |              |              |              |               |              |              |              |
|   | 1                | CoSe 15453   | CoP 15440    |              |               |              |              |              |
|   | 2                | CoSe 15454   | CoP 15439    |              |               |              |              |              |
|   | 3                |              | CoSe 15453   |              |               |              |              |              |

\* Significantly superior the over best standard.

**No. of locations where an entry recorded >10% improvement:** CoSe 15453 (2), CoP 15439 (1), CoP 15440 (1), CoSe 15454 (1).

**Performance across the locations:** The test entry CoSe 15453 ranked top in the zone with 89.91 t/ha mean cane yield across locations and it also recorded 34.44% and 15.83% improvement over best standard at Seorahi and Pusa centers respectively. The test entry CoSe 15454 ranked second in the zone with mean value of 88.82 t/ha and recorded 25.83% improvement over best standard at Seorahi center. Another test entry CoP 15440 ranked third in the zone with a mean of 87.36 t/ha and improvement of 38.54% over best standard at Pusa centre for cane yield. However, none of the test entries recorded >10% improvement over the best standard across the zone for cane yield.

**Table 5.6.3. CCS (%) at harvest**

| S. No. | Entries   | Seorahi      | Pusa         | Moti pur     | Bethua dahari | Buralik son  | Mean         | Overall rank |
|--------|---|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| 1      | CoP 15438   | 11.50        | 12.13        | 11.27        | 12.06         | 11.98        | <b>11.79</b> |              |
| 2      | CoP 15439   | 11.84        | 12.22        | 11.47        | 12.16         | 12.64        | <b>12.07</b> |              |
| 3      | CoP 15440   | 12.51        | 12.21        | 11.05        | 12.16         | 12.42        | <b>12.07</b> |              |
| 4      | CoSe 15453  | 13.22        | 12.11        | 11.47        | 12.03         | 11.71        | <b>12.11</b> | <b>3</b>     |
| 5      | CoSe 15454  | 12.02        | 11.96        | 11.30        | 12.06         |              | <b>11.84</b> |              |
| 6      | CoLk 15468  | 12.48        | 12.00        | 11.05        | 11.87         | 12.64        | <b>12.01</b> |              |
| 7      | CoLk 15469  | 13.13        | 12.13        | 11.58        | 12.05         | 12.86        | <b>12.35</b> | <b>2</b>     |
|        | <b>Standards</b>                                      | -            |              |              |               |              |              |              |
| 1      | BO 91   | 11.79        | 11.83        | 10.34        | 11.86         | 12.32        | <b>11.63</b> |              |
| 2      | CoP 9301  | 13.03        | 12.45        | 11.46        | 12.45         | 12.40        | <b>12.36</b> | <b>1</b>     |
| 3      | CoP 06436   | 12.52        | 12.03        | 10.86        | 11.40         | 12.62        | <b>11.89</b> |              |
|        | <b>GM</b>   | <b>12.40</b> | <b>12.11</b> | <b>11.19</b> | <b>12.01</b>  | <b>12.40</b> | <b>12.02</b> |              |
|        | SE  | 0.09         | 0.09         | 0.17         | 0.06          | 0.16         |              |              |
|        | CD  | 0.28         | 0.26         | 0.51         | 0.19          | 0.34         |              |              |
|        | CV  | 1.30         | 1.23         | 4.68         | 2.26          | 1.60         |              |              |
|        | <b>Top three qualifying entries at each locations</b> |              |              |              |               |              |              |              |
|        | 1   |              |              |              |               |              |              |              |
|        | 2   |              |              |              |               |              |              |              |
|        | 3   |              |              |              |               |              |              |              |

**No. of locations where an entry recorded >5% improvement: Nil**

**Performance across the locations:** None of the test entries recorded >5% improvement over the best standard across the zone for CCS%. The standard CoP 9301 ranked top in the zone with 12.36% of mean CCS% across locations. The test entry CoLk 15469 recorded second with 12.35% mean CCS%, followed by CoSe 15453 with 12.11% mean CCS%.

**Table 5.6.4. Sucrose (%) at harvest**

| S. No. | Entries                                     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         | Overall rank |
|--------|---|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| 1      | CoP 15438                                   | 16.92        | 17.58        | 15.90        | 17.43         | 17.55        | <b>17.08</b> |              |
| 2      | CoP 15439                                   | 17.34        | 17.69        | 16.21        | 17.54         | 18.44        | <b>17.44</b> |              |
| 3      | CoP 15440                                   | 18.18        | 17.68        | 15.84        | 17.52         | 18.23        | <b>17.49</b> |              |
| 4      | CoSe 15453                                  | 19.27*       | 17.55        | 16.34        | 17.35         | 17.31        | <b>17.56</b> | <b>3</b>     |
| 5      | CoSe 15454                                  | 17.56        | 17.34        | 16.12        | 17.43         |              | <b>17.11</b> |              |
| 6      | CoLk 15468                                  | 18.69        | 17.41        | 15.80        | 17.15         | 18.44        | <b>17.50</b> |              |
| 7      | CoLk 15469                                  | 19.16        | 17.60        | 16.70        | 17.42         | 18.68        | <b>17.91</b> | <b>2</b>     |
|        | <b>Standards</b>                            | -            |              |              |               |              |              |              |
| 1      | BO 91                                       | 17.23        | 17.17        | 15.01        | 17.16         | 18.14        | <b>16.94</b> |              |
| 2      | CoP 9301                                    | 19.01        | 18.05        | 16.48        | 17.96         | 18.19        | <b>17.94</b> | <b>1</b>     |
| 3      | CoP 06436                                   | 18.24        | 17.44        | 15.37        | 16.58         | 18.52        | <b>17.23</b> |              |
|        | <b>GM</b>                                   | <b>18.16</b> | <b>17.55</b> | <b>15.98</b> | <b>17.35</b>  | <b>18.17</b> | <b>17.44</b> |              |
|        | SE  | 0.10         | 0.12         | 0.27         | 0.09          | 0.15         |              |              |
|        | CD  | 0.20         | 0.36         | 0.80         | 0.27          | 0.32         |              |              |
|        | CV  | 0.77         | 1.19         | 4.92         | 2.06          | 1.03         |              |              |
|        | <b>Qualifying entries at each locations</b> |              |              |              |               |              |              |              |
|        | 1   |              |              |              |               |              |              |              |
|        | 2   |              |              |              |               |              |              |              |
|        | 3   |              |              |              |               |              |              |              |

**No. of locations where an entry recorded >5% improvement:** Nil.

**Performance across the locations:** None of the test entries recorded >5% improvement over the best standard across the zone for sucrose. The standard CoP 9301 ranked top in the zone with 17.94% mean sucrose% across locations. The test entry CoLk 15469 recorded second with 17.91% mean sucrose, followed by CoSe 15453 with 17.56% sucrose.

**Table 5.6.5. Brix (%) at harvest**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 15438        | 19.85        | 20.00        | 17.08        | 19.70         | 20.40        | <b>19.41</b> |
| 2      | CoP 15439        | 20.11        | 20.07        | 17.45        | 19.73         | 21.27        | <b>19.73</b> |
| 3      | CoP 15440        | 20.78        | 20.07        | 17.58        | 19.67         | 21.27        | <b>19.87</b> |
| 4      | CoSe 15453       | 22.15        | 19.93        | 17.91        | 19.53         | 20.47        | <b>20.00</b> |
| 5      | CoSe 15454       | 20.32        | 19.73        | 17.71        | 19.72         |              | <b>19.37</b> |
| 6      | CoLk 15468       | 21.28        | 19.83        | 17.45        | 19.37         | 21.27        | <b>19.84</b> |
| 7      | CoLk 15469       | 22.08        | 20.03        | 18.78        | 19.70         | 21.33        | <b>20.38</b> |
|        | <b>Standards</b> | -            |              |              |               |              |              |
| 1      | BO 91            | 19.94        | 19.57        | 17.11        | 19.45         | 21.27        | <b>19.47</b> |
| 2      | CoP 9301         | 21.89        | 20.53        | 18.45        | 20.22         | 21.20        | <b>20.46</b> |
| 3      | CoP 06436        | 20.95        | 19.83        | 16.60        | 18.98         | 21.60        | <b>19.59</b> |
|        | <b>GM</b>        | <b>20.94</b> | <b>19.96</b> | <b>17.61</b> | <b>19.61</b>  | <b>21.12</b> | <b>19.85</b> |
|        | SE               | 0.12         | 0.14         | 0.45         | 0.11          | 0.23         |              |
|        | CD               | 0.34         | 0.41         | 1.33         | 0.34          | 0.48         |              |
|        | CV               | 0.95         | 1.20         | 4.41         | 1.75          | 1.35         |              |

**Table 5.6.6. Purity (%) at harvest**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 15438        | 85.26        | 87.90        | 93.10        | 88.48         | 86.01        | <b>88.15</b> |
| 2      | CoP 15439        | 86.19        | 88.17        | 92.97        | 88.90         | 86.73        | <b>88.59</b> |
| 3      | CoP 15440        | 87.44        | 88.13        | 90.13        | 89.07         | 85.72        | <b>88.10</b> |
| 4      | CoSe 15453       | 87.00        | 88.03        | 91.29        | 88.84         | 84.62        | <b>87.96</b> |
| 5      | CoSe 15454       | 86.42        | 87.83        | 91.11        | 88.39         |              | <b>88.44</b> |
| 6      | CoLk 15468       | 87.86        | 87.77        | 90.58        | 88.54         | 86.72        | <b>88.29</b> |
| 7      | CoLk 15469       | 86.76        | 87.67        | 88.93        | 88.43         | 87.58        | <b>87.87</b> |
|        | <b>Standards</b> | -            |              |              |               |              |              |
| 1      | BO 91            | 86.40        | 87.73        | 87.76        | 88.23         | 85.29        | <b>87.08</b> |
| 2      | CoP 9301         | 86.84        | 88.23        | 89.39        | 88.82         | 85.78        | <b>87.81</b> |
| 3      | CoP 06436        | 87.04        | 87.93        | 92.62        | 87.36         | 85.76        | <b>88.14</b> |
|        | <b>GM</b>        | <b>86.72</b> | <b>87.94</b> | <b>90.79</b> | <b>88.51</b>  | <b>86.02</b> | <b>88.00</b> |
|        | SE               | 0.26         | 0.16         | 1.23         | 0.22          | 1.12         |              |
|        | CD               | 0.77         | 0.50         | 3.64         | 0.66          | 2.32         |              |
|        | CV               | 0.52         | 0.32         | 5.34         | 0.67          | 1.59         |              |

**Table 5.6.7. Pol (%) cane at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15438        |         | 13.61        | 12.36        |               |             | <b>12.99</b> |
| 2      | CoP 15439        |         | 13.71        | 12.60        |               |             | <b>13.16</b> |
| 3      | CoP 15440        |         | 13.78        | 12.30        |               |             | <b>13.04</b> |
| 4      | CoSe 15453       |         | 13.54        | 12.78        |               |             | <b>13.16</b> |
| 5      | CoSe 15454       |         | 13.34        | 12.59        |               |             | <b>12.97</b> |
| 6      | CoLk 15468       |         | 13.38        | 12.31        |               |             | <b>12.85</b> |
| 7      | CoLk 15469       |         | 12.57        | 13.04        |               |             | <b>12.81</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | BO 91            |         | 13.28        | 11.68        |               |             | <b>12.48</b> |
| 2      | CoP 9301         |         | 14.04        | 12.95        |               |             | <b>13.50</b> |
| 3      | CoP 06436        |         | 13.46        | 12.02        |               |             | <b>12.74</b> |
|        | <b>GM</b>        |         | <b>13.47</b> | <b>12.46</b> |               |             | <b>12.97</b> |
|        | SE               |         | 0.10         | 0.21         |               |             |              |
|        | CD               |         | 0.28         | 0.62         |               |             |              |
|        | CV               |         | 1.21         | 2.91         |               |             |              |

**Table 5.6.8. Extraction (%) at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15438        |         | 62.30        | 57.66        |               |             | <b>59.98</b> |
| 2      | CoP 15439        |         | 62.73        | 62.00        |               |             | <b>62.37</b> |
| 3      | CoP 15440        |         | 63.10        | 60.67        |               |             | <b>61.89</b> |
| 4      | CoSe 15453       |         | 60.90        | 62.00        |               |             | <b>61.45</b> |
| 5      | CoSe 15454       |         | 61.20        | 56.33        |               |             | <b>58.77</b> |
| 6      | CoLk 15468       |         | 58.70        | 60.33        |               |             | <b>59.52</b> |
| 7      | CoLk 15469       |         | 58.95        | 62.33        |               |             | <b>60.64</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | BO 91            |         | 61.20        | 63.00        |               |             | <b>62.10</b> |
| 2      | CoP 9301         |         | 62.10        | 62.33        |               |             | <b>62.22</b> |
| 3      | CoP 06436        |         | 61.10        | 60.67        |               |             | <b>60.89</b> |
|        | <b>GM</b>        |         | <b>61.23</b> | <b>60.73</b> |               |             | <b>60.98</b> |
|        | SE               |         | 1.72         | 1.19         |               |             |              |
|        | CD               |         | 5.43         | 3.54         |               |             |              |
|        | CV               |         | 4.88         | 6.40         |               |             |              |

**Table 5.6.9. Fibre (%) at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 15438        |         | 12.60        | 12.30        |               |             | <b>12.45</b> |
| 2      | CoP 15439        |         | 12.50        | 12.27        |               |             | <b>12.39</b> |
| 3      | CoP 15440        |         | 12.40        | 12.36        |               |             | <b>12.38</b> |
| 4      | CoSe 15453       |         | 12.85        | 11.82        |               |             | <b>12.34</b> |
| 5      | CoSe 15454       |         | 13.05        | 11.92        |               |             | <b>12.49</b> |
| 6      | CoLk 15468       |         | 13.10        | 12.07        |               |             | <b>12.59</b> |
| 7      | CoLk 15469       |         | 12.85        | 11.89        |               |             | <b>12.37</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | BO 91            |         | 12.60        | 12.24        |               |             | <b>12.42</b> |
| 2      | CoP 9301         |         | 12.20        | 11.40        |               |             | <b>11.80</b> |
| 3      | CoP 06436        |         | 12.80        | 11.77        |               |             | <b>12.29</b> |
|        | <b>GM</b>        |         | <b>12.70</b> | <b>12.00</b> |               |             | <b>12.35</b> |
|        | SE               |         | 0.33         | 0.27         |               |             |              |
|        | CD               |         | 1.02         | 0.82         |               |             |              |
|        | CV               |         | 4.44         | 5.96         |               |             |              |

**Table 5.6.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Entries          | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralik son  | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoP 15438        | 104.00        | 105.60        | 110.11        | 125.47        | 67.39        | <b>102.51</b> |
| 2      | CoP 15439        | 106.00        | 108.10        | 90.33         | 122.61        | 81.93        | <b>101.79</b> |
| 3      | CoP 15440        | 99.00         | 112.30        | 94.66         | 120.86        | 73.80        | <b>100.12</b> |
| 4      | CoSe 15453       | 111.00        | 103.80        | 103.00        | 123.20        | 74.53        | <b>103.11</b> |
| 5      | CoSe 15454       | 102.00        | 105.15        | 89.10         | 124.44        | -            | <b>105.17</b> |
| 6      | CoLk 15468       | 97.00         | 95.75         | 79.62         | 124.06        | 73.31        | <b>93.95</b>  |
| 7      | CoLk 15469       | 94.00         | 92.60         | 52.94         | 121.03        | 77.82        | <b>87.68</b>  |
|        | <b>Standards</b> | -             |               |               |               |              |               |
| 1      | BO 91            | 99.00         | 107.20        | 141.73        | 129.15        | 75.02        | <b>110.42</b> |
| 2      | CoP 9301         | 93.00         | 108.40        | 122.98        | 120.05        | 73.30        | <b>103.55</b> |
| 3      | CoP 06436        | 97.00         | 109.18        | 120.61        | 128.75        | 67.39        | <b>104.59</b> |
|        | <b>GM</b>        | <b>100.20</b> | <b>104.81</b> | <b>100.51</b> | <b>123.96</b> | <b>73.83</b> | <b>100.66</b> |
|        | SE               | 1.32          | 5.31          | 3.46          | 1.01          | 6.03         |               |
|        | CD               | 3.90          | 16.75         | 10.29         | 3.06          | 12.54        |               |
|        | CV               | 6.21          | 8.78          | 10.00         | 2.65          | 9.91         |               |

**Table 5.6.11. Stalk Length (cm) at harvest**

| S. No. | Entries          | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralik son   | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1      | CoP 15438        | 184.00        | 275.00        | 280.00        | 262.67        | 245.00        | <b>249.33</b> |
| 2      | CoP 15439        | 205.00        | 301.00        | 328.33        | 258.00        | 236.67        | <b>265.80</b> |
| 3      | CoP 15440        | 178.00        | 293.00        | 255.00        | 254.33        | 255.00        | <b>247.07</b> |
| 4      | CoSe 15453       | 272.00        | 291.00        | 311.67        | 266.33        | 243.33        | <b>276.87</b> |
| 5      | CoSe 15454       | 215.00        | 287.00        | 303.33        | 266.67        | -             | <b>268.00</b> |
| 6      | CoLk 15468       | 179.00        | 267.00        | 243.33        | 244.67        | 228.33        | <b>232.47</b> |
| 7      | CoLk 15469       | 174.00        | 254.67        | 240.00        | 248.67        | 218.33        | <b>227.13</b> |
|        | <b>Standards</b> | -             |               |               |               |               |               |
| 1      | BO 91            | 203.00        | 270.00        | 295.00        | 233.33        | 273.33        | <b>254.93</b> |
| 2      | CoP 9301         | 166.00        | 253.00        | 271.67        | 248.00        | 260.00        | <b>239.73</b> |
| 3      | CoP 06436        | 183.00        | 294.33        | 296.67        | 268.33        | 211.67        | <b>250.80</b> |
|        | <b>GM</b>        | <b>195.90</b> | <b>278.60</b> | <b>282.50</b> | <b>255.10</b> | <b>241.30</b> | <b>250.68</b> |
|        | SE               | 4.87          | 12.27         | 6.67          | 4.28          | 6.71          |               |
|        | CD               | 14.59         | 38.66         | 19.82         | 12.71         | 13.96         |               |
|        | CV               | 4.32          | 7.63          | 5.09          | 4.82          | 3.41          |               |

**Table 5.6.12. Stalk Diameter (cm) at harvest**

| S. No. | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|------------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoP 15438        | 2.00        | 2.41        | 1.93        | 2.13          | 2.37        | <b>2.17</b> |
| 2      | CoP 15439        | 1.80        | 2.48        | 2.23        | 2.11          | 2.50        | <b>2.22</b> |
| 3      | CoP 15440        | 2.20        | 2.65        | 2.23        | 2.22          | 2.53        | <b>2.37</b> |
| 4      | CoSe 15453       | 2.40        | 2.60        | 2.20        | 2.28          | 2.47        | <b>2.39</b> |
| 5      | CoSe 15454       | 2.00        | 2.55        | 2.23        | 2.22          | -           | <b>2.25</b> |
| 6      | CoLk 15468       | 2.10        | 2.70        | 2.80        | 2.09          | 2.30        | <b>2.40</b> |
| 7      | CoLk 15469       | 2.30        | 2.63        | 2.63        | 2.16          | 2.40        | <b>2.42</b> |
|        | <b>Standards</b> | -           |             |             |               |             |             |
| 1      | BO 91            | 1.80        | 2.24        | 1.93        | 2.08          | 2.37        | <b>2.08</b> |
| 2      | CoP 9301         | 1.80        | 2.32        | 2.20        | 1.98          | 2.60        | <b>2.18</b> |
| 3      | CoP 06436        | 2.20        | 2.62        | 2.13        | 2.29          | 2.23        | <b>2.29</b> |
|        | <b>GM</b>        | <b>2.06</b> | <b>2.52</b> | <b>2.25</b> | <b>2.16</b>   | <b>2.42</b> | <b>2.28</b> |
|        | SE               | 0.05        | 0.11        | 0.05        | 0.05          | 0.07        |             |
|        | CD               | 0.15        | 0.36        | 0.14        | 0.16          | 0.14        |             |
|        | CV               | 4.17        | 7.82        | 5.53        | 5.55          | 3.47        |             |

**Table 5.6.13. Single Cane Weight (kg) at harvest**

| S. No. | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|------------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoP 15438        | 0.78        | 0.81        | 0.79        | 0.63          | 0.99        | <b>0.80</b> |
| 2      | CoP 15439        | 0.80        | 0.98        | 1.31        | 0.68          | 1.00        | <b>0.95</b> |
| 3      | CoP 15440        | 0.80        | 1.05        | 0.92        | 0.65          | 1.07        | <b>0.90</b> |
| 4      | CoSe 15453       | 0.94        | 0.95        | 1.23        | 0.69          | 1.03        | <b>0.97</b> |
| 5      | CoSe 15454       | 0.97        | 0.84        | 1.20        | 0.67          | -           | <b>0.92</b> |
| 6      | CoLk 15468       | 0.81        | 0.70        | 1.29        | 0.63          | 0.99        | <b>0.88</b> |
| 7      | CoLk 15469       | 0.77        | 0.82        | 1.20        | 0.64          | 0.92        | <b>0.87</b> |
|        | <b>Standards</b> | -           |             |             |               |             |             |
| 1      | BO 91            | 0.80        | 0.74        | 0.85        | 0.65          | 1.04        | <b>0.82</b> |
| 2      | CoP 9301         | 0.72        | 0.71        | 1.14        | 0.59          | 1.15        | <b>0.86</b> |
| 3      | CoP 06436        | 0.75        | 0.78        | 1.17        | 0.74          | 0.88        | <b>0.86</b> |
|        | <b>GM</b>        | <b>0.81</b> | <b>0.84</b> | <b>1.11</b> | <b>0.66</b>   | <b>1.01</b> | <b>0.89</b> |
|        | SE               | 0.01        | 0.04        | 0.07        | 0.01          | 0.07        |             |
|        | CD               | 0.02        | 0.12        | 0.19        | 0.04          | 0.15        |             |
|        | CV               | 1.54        | 8.04        | 9.20        | 6.73          | 8.77        |             |

**Table 5.6.14. CCS (%) at 300 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 15438        | 10.65        | 11.89        | 10.79        | 11.31         | 9.93         | <b>10.91</b> |
| 2      | CoP 15439        | 11.31        | 11.32        | 10.89        | 11.29         | 10.14        | <b>10.99</b> |
| 3      | CoP 15440        | 11.29        | 11.36        | 11.40        | 11.32         | 10.59        | <b>11.19</b> |
| 4      | CoSe 15453       | 11.28        | 11.84        | 10.74        | 11.28         | 10.15        | <b>11.06</b> |
| 5      | CoSe 15454       | 10.82        | 11.99        | 10.38        | 11.29         | -            | <b>11.12</b> |
| 6      | CoLk 15468       | 11.96        | 11.70        | 11.81        | 11.16         | 10.71        | <b>11.47</b> |
| 7      | CoLk 15469       | 11.71        | 11.87        | 11.72        | 11.27         | 10.92        | <b>11.50</b> |
|        | <b>Standards</b> | -            |              |              |               |              |              |
| 1      | BO 91            | 10.53        | 11.12        | 9.34         | 11.19         | 10.03        | <b>10.44</b> |
| 2      | CoP 9301         | 12.00        | 12.16        | 11.41        | 11.67         | 10.71        | <b>11.59</b> |
| 3      | CoP 06436        | 10.45        | 11.28        | 9.43         | 10.62         | 10.40        | <b>10.44</b> |
|        | <b>GM</b>        | <b>11.20</b> | <b>11.65</b> | <b>10.79</b> | <b>11.24</b>  | <b>10.40</b> | <b>11.06</b> |
|        | SE               | 0.26         | 0.22         | 0.43         | 0.05          | 0.24         |              |
|        | CD               | 0.78         | 0.65         | 1.26         | 0.17          | 0.50         |              |
|        | CV               | 4.07         | 3.23         | 6.83         | 2.29          | 2.82         |              |



**Table 5.6.15. Sucrose (%) at 300 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 15438        | 15.45        | 17.18        | 15.26        | 16.54         | 15.20        | <b>15.93</b> |
| 2      | CoP 15439        | 16.35        | 16.46        | 15.63        | 16.51         | 15.58        | <b>16.11</b> |
| 3      | CoP 15440        | 16.32        | 16.55        | 16.28        | 16.58         | 15.73        | <b>16.29</b> |
| 4      | CoSe 15453       | 16.33        | 17.20        | 15.28        | 16.50         | 15.30        | <b>16.12</b> |
| 5      | CoSe 15454       | 15.68        | 17.21        | 15.02        | 16.54         | -            | <b>16.11</b> |
| 6      | CoLk 15468       | 17.27        | 17.01        | 16.81        | 16.33         | 15.85        | <b>16.65</b> |
| 7      | CoLk 15469       | 16.98        | 16.44        | 16.56        | 16.49         | 16.61        | <b>16.62</b> |
|        | <b>Standards</b> | -            |              |              |               |              |              |
| 1      | BO 91            | 15.25        | 16.16        | 13.42        | 16.40         | 15.51        | <b>15.35</b> |
| 2      | CoP 9301         | 17.33        | 17.50        | 16.39        | 17.04         | 15.97        | <b>16.85</b> |
| 3      | CoP 06436        | 14.52        | 16.37        | 13.70        | 15.63         | 15.91        | <b>15.23</b> |
|        | <b>GM</b>        | <b>16.15</b> | <b>16.81</b> | <b>15.44</b> | <b>16.46</b>  | <b>15.74</b> | <b>16.12</b> |
|        | SE               | 0.26         | 0.27         | 0.47         | 0.08          | 0.24         |              |
|        | CD               | 0.77         | 0.80         | 1.41         | 0.23          | 0.50         |              |
|        | CV               | 2.80         | 2.76         | 5.31         | 2.11          | 1.86         |              |

**Table 5.6.16. Brix (%) at 300 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 15438        | 17.62        | 19.43        | 16.45        | 19.15         | 19.20        | <b>18.37</b> |
| 2      | CoP 15439        | 18.50        | 18.87        | 17.40        | 19.13         | 19.80        | <b>18.74</b> |
| 3      | CoP 15440        | 18.45        | 19.03        | 17.94        | 19.27         | 18.80        | <b>18.70</b> |
| 4      | CoSe 15453       | 18.52        | 19.63        | 16.97        | 19.13         | 18.80        | <b>18.61</b> |
| 5      | CoSe 15454       | 17.83        | 19.70        | 17.02        | 19.22         | -            | <b>18.44</b> |
| 6      | CoLk 15468       | 19.49        | 19.43        | 18.40        | 18.92         | 18.80        | <b>19.01</b> |
| 7      | CoLk 15469       | 19.30        | 18.93        | 17.80        | 19.13         | 20.73        | <b>19.18</b> |
|        | <b>Standards</b> | -            |              |              |               |              |              |
| 1      | BO 91            | 17.31        | 18.50        | 15.00        | 19.07         | 19.93        | <b>17.96</b> |
| 2      | CoP 9301         | 19.55        | 19.63        | 18.27        | 19.66         | 19.20        | <b>19.26</b> |
| 3      | CoP 06436        | 16.72        | 18.63        | 15.65        | 18.32         | 19.00        | <b>17.66</b> |
|        | <b>GM</b>        | <b>18.33</b> | <b>19.18</b> | <b>17.09</b> | <b>19.10</b>  | <b>19.36</b> | <b>18.61</b> |
|        | SE               | 0.27         | 0.24         | 0.29         | 0.09          | 0.24         |              |
|        | CD               | 0.81         | 0.71         | 0.85         | 0.26          | 0.51         |              |
|        | CV               | 2.58         | 2.15         | 4.91         | 1.79          | 1.54         |              |

**Table 5.6.17. Purity (%) at 300 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 15438        | 87.68        | 88.43        | 92.80        | 86.37         | 79.19        | <b>86.89</b> |
| 2      | CoP 15439        | 88.41        | 87.27        | 89.82        | 86.30         | 78.68        | <b>86.10</b> |
| 3      | CoP 15440        | 88.46        | 87.00        | 90.75        | 86.04         | 83.69        | <b>87.19</b> |
| 4      | CoSe 15453       | 88.16        | 86.67        | 91.46        | 86.25         | 81.40        | <b>86.79</b> |
| 5      | CoSe 15454       | 87.96        | 86.97        | 88.16        | 86.06         | -            | <b>87.29</b> |
| 6      | CoLk 15468       | 88.62        | 87.60        | 91.38        | 86.31         | 84.31        | <b>87.64</b> |
| 7      | CoLk 15469       | 87.94        | 86.83        | 93.01        | 86.20         | 80.13        | <b>86.82</b> |
|        | <b>Standards</b> | -            |              |              |               |              |              |
| 1      | BO 91            | 88.11        | 87.03        | 89.39        | 86.00         | 77.80        | <b>85.67</b> |
| 2      | CoP 9301         | 88.58        | 89.73        | 89.68        | 86.67         | 83.21        | <b>87.57</b> |
| 3      | CoP 06436        | 86.84        | 87.77        | 87.52        | 85.32         | 83.44        | <b>86.18</b> |
|        | <b>GM</b>        | <b>88.08</b> | <b>87.53</b> | <b>90.40</b> | <b>86.15</b>  | <b>81.32</b> | <b>86.69</b> |
|        | SE               | 0.29         | 0.53         | 2.03         | 0.12          | 1.43         |              |
|        | CD               | 0.85         | 1.67         | 6.03         | 0.37          | 2.98         |              |
|        | CV               | 0.56         | 1.05         | 3.89         | 0.44          | 2.16         |              |

**Table 5.6.18. Number of Shoots ('000/ha) at 240 days**

| S. No. | Entries          | Seorahi | Pusa          | Motipur       | Bethua dahari | Buralik son  | Mean          |
|--------|------------------|---------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoP 15438        |         | 135.80        | 121.85        | 132.62        | 74.93        | <b>116.30</b> |
| 2      | CoP 15439        |         | 141.60        | 101.97        | 126.54        | 68.52        | <b>109.66</b> |
| 3      | CoP 15440        |         | 145.25        | 106.31        | 125.64        | 83.98        | <b>115.30</b> |
| 4      | CoSe 15453       |         | 127.15        | 106.40        | 128.87        | 75.43        | <b>109.46</b> |
| 5      | CoSe 15454       |         | 125.10        | 99.91         | 131.13        | -            | <b>118.71</b> |
| 6      | CoLk 15468       |         | 117.85        | 90.85         | 129.36        | 76.63        | <b>103.67</b> |
| 7      | CoLk 15469       |         | 121.23        | 62.11         | 127.89        | 75.24        | <b>96.62</b>  |
|        | <b>Standards</b> |         |               |               |               |              |               |
| 1      | BO 91            |         | 145.20        | 153.06        | 134.34        | 79.74        | <b>128.09</b> |
| 2      | CoP 9301         |         | 129.17        | 144.71        | 124.40        | 77.71        | <b>119.00</b> |
| 3      | CoP 06436        |         | 138.80        | 130.40        | 134.54        | 76.10        | <b>119.96</b> |
|        | <b>GM</b>        |         | <b>132.72</b> | <b>111.76</b> | <b>129.53</b> | <b>76.48</b> | <b>112.62</b> |
|        | SE               |         | 7.54          | 3.15          | 1.04          | 6.20         |               |
|        | CD               |         | 23.75         | 9.37          | 3.11          | 12.89        |               |
|        | CV               |         | 9.84          | 8.87          | 2.82          | 9.92         |               |

**Table 5.6.19. Number of Tillers ('000/ha) at 120 days**

| S. No. | Entries          | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralik son  | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoP 15438        | 149.00        | 101.25        | 129.99        | 128.53        | 79.61        | <b>117.68</b> |
| 2      | CoP 15439        | 128.00        | 105.70        | 102.07        | 121.64        | 74.32        | <b>106.35</b> |
| 3      | CoP 15440        | 151.00        | 110.75        | 110.00        | 121.30        | 87.79        | <b>116.17</b> |
| 4      | CoSe 15453       | 179.00        | 102.70        | 121.13        | 124.77        | 82.17        | <b>121.95</b> |
| 5      | CoSe 15454       | 139.00        | 98.82         | 95.79         | 126.86        | -            | <b>115.12</b> |
| 6      | CoLk 15468       | 136.00        | 97.10         | 104.44        | 125.46        | 78.33        | <b>108.27</b> |
| 7      | CoLk 15469       | 127.00        | 95.85         | 68.73         | 123.72        | 82.15        | <b>99.49</b>  |
|        | <b>Standards</b> | -             |               |               |               |              |               |
| 1      | BO 91            | 140.00        | 103.80        | 148.53        | 130.68        | 82.77        | <b>121.16</b> |
| 2      | CoP 9301         | 129.00        | 102.85        | 136.58        | 120.05        | 81.06        | <b>113.91</b> |
| 3      | CoP 06436        | 140.00        | 105.30        | 132.05        | 131.35        | 84.34        | <b>118.61</b> |
|        | <b>GM</b>        | <b>141.80</b> | <b>102.41</b> | <b>114.93</b> | <b>125.44</b> | <b>81.39</b> | <b>113.19</b> |
|        | SE               | 1.25          | 5.18          | 3.17          | 1.03          | 7.01         |               |
|        | CD               | 3.71          | 16.31         | 9.42          | 3.07          | 14.57        |               |
|        | CV               | 4.14          | 8.76          | 7.80          | 3.16          | 10.54        |               |

**Table 5.6.20. Germination (%) at 45 days**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 15438        | 49.81        | 44.30        | 44.13        | 35.32         | 35.00        | <b>41.71</b> |
| 2      | CoP 15439        | 49.81        | 41.10        | 28.03        | 35.87         | 36.33        | <b>38.23</b> |
| 3      | CoP 15440        | 43.33        | 42.70        | 32.67        | 36.37         | 36.67        | <b>38.35</b> |
| 4      | CoSe 15453       | 59.35        | 38.50        | 43.43        | 36.77         | 34.00        | <b>42.41</b> |
| 5      | CoSe 15454       | 53.05        | 40.10        | 23.77        | 35.68         | -            | <b>38.15</b> |
| 6      | CoLk 15468       | 48.05        | 36.50        | 32.27        | 36.63         | 34.67        | <b>37.62</b> |
| 7      | CoLk 15469       | 49.35        | 39.70        | 20.43        | 36.73         | 35.33        | <b>36.31</b> |
|        | <b>Standards</b> | -            |              |              |               |              |              |
| 1      | BO 91            | 48.79        | 41.10        | 42.43        | 39.68         | 39.33        | <b>42.27</b> |
| 2      | CoP 9301         | 45.37        | 42.60        | 43.01        | 34.96         | 37.67        | <b>40.72</b> |
| 3      | CoP 06436        | 46.57        | 43.10        | 46.53        | 39.35         | 32.33        | <b>41.58</b> |
|        | <b>GM</b>        | <b>49.35</b> | <b>40.97</b> | <b>35.67</b> | <b>36.74</b>  | <b>35.70</b> | <b>39.69</b> |
|        | SE               | 0.46         | 2.23         | 1.36         | 0.78          | 2.07         |              |
|        | CD               | 1.38         | 7.03         | 4.04         | 2.34          | 4.31         |              |
|        | CV               | 5.85         | 9.43         | 6.61         | 5.12          | 7.10         |              |

**Table 5.6.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| <b>Entry / Locations</b>              | <b>Seorahi</b> | <b>Pusa</b> | <b>Motipur</b> | <b>Bethuadhari</b> | <b>Buralikson*</b> |
|---------------------------------------|----------------|-------------|----------------|--------------------|--------------------|
| CoP 15438                             | Average        | Good        | Good           | Good               | Good               |
| CoP 15439                             | Good           | Very good   | Excellent      | Very good          | Good               |
| CoP15440                              | Good           | Very good   | Very good      | Very good          | Good               |
| CoLk 15468                            | Good           | Good        | Very good      | Average            | Average            |
| CoLk 15469                            | Average        | Good        | Very good      | Good               | Good               |
| CoSe15453                             | Excellent      | Very good   | Excellent      | Good               | Good               |
| CoSe15454                             | Good           | Very good   | Good           | Good               | Good               |
| <b>Standards</b>                      |                |             |                |                    |                    |
| BO 91                                 | Good           | Good        | Good           | Good               | Average            |
| CoP 9301                              | Good           | Good        | Good           | Good               | Good               |
| CoP 06436                             | Very good      | Good        | Very Good      | Very Good          | Good               |
| Overall Performance of the Experiment | Good           | Very good   | Excellent      | Very good          | Good               |

### 5.7. ADVANCED VARIETAL TRIAL (MIDLATE) – RATOON

|                       |   |
|-----------------------|---|
| <b>Centers (5)</b>    | Bethuadahari, Buralikson, Motipur, Pusa and Seorahi                             |
| <b>Entries (7)</b>    | CoLk 15468, CoLk 15469, CoP 15438, CoP 15439, CoP 15440, CoSe 15453, CoSe 15454 |
| <b>Standards (3)</b>  | BO 91, CoP 9301 and CoP 06436   |
| <b>Design</b>         | RBD   |
| <b>Replications</b>   | Three   |
| <b>Plot size</b>      | Gross : 6 m x 8 rows x 0.90 m<br>Net : 5 m x 6 rows x 0.90 m                    |
| <b>Ratooning time</b> | February / March, 2020  |
| <b>Crop duration</b>  | 11 months   |

**Results of the previous year:** Seven test entries and three standards were evaluated in AVT (Midlate) I plant at five locations of North Central and North East zones during 2019-20 for cane yield and juice quality parameters. The test entry CoP 15453 ranked top in the zone with 13.93% improvement for CCS yield over the best standard across the locations and it also recorded 37.49% and 21.88% improvement over the best standards at Seorahi and Motipur centers respectively. For cane yield, the test entry CoP 15453 ranked top in the zone with 15.43% improvement for cane yield over best standard across the locations and it also recorded 28.32%, 11.05% and 24.75% improvement over best standard at Seorahi, Motipur and Pusa centers respectively. For CCS%, none of the test entries recorded >5% improvement in the zone. The standard CoP 9301 recorded top in the zone with 12.72% of mean CCS% across locations. The entry CoP 15439 and CoP 15438 ranked second and third in the zone with 12.59% and 12.55% of mean CCS% respectively. For sucrose%, none of the test entries recorded >5% improvement in the zone. The standard CoP 9301 ranked top in the zone with 18.48% mean sucrose. The entries CoLk 15468 and CoLk 15469 ranked second and third in the zone with 18.32% and 18.29% mean sucrose% respectively. Considering both cane yield and juice quality, CoSe 15453 recorded >10% improvement for cane yield and found to be numerically superior compared to best standard CoP 06436 and it is identified as qualifying entry in the zone.

**Results of the current year:**

Five test entries and three standards were evaluated in AVT (Midlate) ratoon trial at five locations of North Central and North East zones during 2020-21 for cane yield and juice quality parameters. None of the test entries recorded >10% improvement over the best standard across the zone for CCS yield. CoP 15440 ranked top with 8.55 t/ha of mean CCS yield across locations and also recorded 34.54% and 19.13 % improvement over best standards at Seorahi and Pusa centers respectively. The test entry CoSe 15453 and standard CoP 06436 ranked second and third with 8.52 t/ha and 8.34 t/ha CCS yield respectively. None of the test entries recorded >10% improvement over the best standard in the zone for cane yield. The standard CoP 06436 ranked top with 71.88 t/ha of cane yield across locations followed by entries CoSe 15453 and CoP 15440 which ranked second and third in the zone with 71.23 t/ha and 71.14 t/ha of mean cane yield respectively. None of the test entries recorded >5% improvement for CCS% over best standard in the zone. The standard CoP 9301 ranked first in the zone with 12.17% mean CCS%. Test entries CoLk 15469 and CoLk 15468 ranked second and third in the zone with 12.08% and 12.02% mean CCS% respectively. None of the test entries recorded >5% improvement over best standard for sucrose% across the locations. The standard CoP 9301 ranked top in the zone with 17.62% mean sucrose. The entries CoLk 15469 and CoLk 15468 ranked second and third respectively in the zone with 17.47% and 17.46% mean sucrose respectively. On comparing with best standard CoP 06436, none of entries was found to be qualifying as they have not recorded > 10% improvement in cane yield or 5% improvement in sucrose content. **The data are presented in table 5.7.1 to 5.7.15.**

**Table 5.7.1. CCS (t/ha) at harvest**

| S. No.  | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        | Overall rank |
|---|------------------|-------------|-------------|-------------|---------------|-------------|-------------|--------------|
| 1   | CoLk 15468       | 9.08*       | 6.91        | 8.90        | 8.16          | 8.44        | <b>8.30</b> |              |
| 2   | CoLk 15469       | 8.43*       | 7.00        | 4.37        | 8.04          | 8.53        | <b>7.27</b> |              |
| 3   | CoP 15438        | 7.04        | 7.08        | 6.48        | 7.89          | 8.79        | <b>7.46</b> |              |
| 4   | CoP 15439        | 9.29*       | 7.89        | 6.81        | 8.28          | 9.02        | <b>8.26</b> |              |
| 5   | CoP 15440        | 9.27*       | 8.78*       | 5.67        | 8.07          | 10.96       | <b>8.55</b> | <b>1</b>     |
| 6   | CoSe 15453       | 10.82*      | 6.60        | 7.90        | 8.00          | 9.29        | <b>8.52</b> | <b>2</b>     |
| 7   | CoSe 15454       | 9.98*       | 7.11        | 6.64        | 7.70          | -           | <b>7.86</b> |              |
|   | <b>Standards</b> | -           |             |             |               |             |             |              |
| 1   | BO 91            | 6.10        | 6.12        | 7.08        | 8.18          | 9.66        | <b>7.43</b> |              |
| 2   | CoP 9301         | 6.86        | 6.02        | 8.32        | 7.92          | 9.77        | <b>7.78</b> |              |
| 3   | CoP 06436        | 6.89        | 7.37        | 10.72       | 8.15          | 8.57        | <b>8.34</b> | <b>3</b>     |
|   | <b>GM</b>        | <b>8.38</b> | <b>7.09</b> | <b>7.29</b> | <b>8.04</b>   | <b>9.23</b> | <b>7.98</b> |              |
|   | SE(m)            | 0.24        | 0.42        | 0.25        | 0.12          | 0.80        |             |              |
|   | CD               | 0.71        | 1.26        | 0.75        | 0.35          | 1.66        |             |              |
|   | CV               | 4.95        | 10.29       | 5.98        | 2.69          | 10.56       |             |              |
| <b>Top three qualifying entries at each locations</b> |                  |             |             |             |               |             |             |              |
|   | 1                | CoSe 15453  | CoP 15440   |             |               | CoP 15440   |             |              |
|   | 2                | CoSe 15454  |             |             |               |             |             |              |
|   | 3                | CoP 15439   |             |             |               |             |             |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoLk 15468 (1), CoLk 15469 (1), CoP 15439 (1), CoP 15440 (3), CoSe 15453 (1), CoSe 15454 (1)

**Performance across the locations:** None of the test entries recorded >10% improvement over the best standard across the zone for CCS yield. CoP 15440 ranked top with 8.55 t/ha of mean CCS yield across locations and also recorded 34.54% and 19.13 % improvement over best standards at Seorahi and Pusa centers respectively. The test entry CoSe 15453 and standard CoP 06436 ranked second and third with 8.52 t/ha and 8.34 t/ha CCS yield respectively.

**Table 5.7.2. Cane yield (t/ha) at harvest**

| S. No.  | Entries          | Seorahi      | Pusa         | Moti pur     | Bethua dahari | Buralik son  | Mean         | Overall rank |
|---|------------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| 1   | CoLk 15468       | 71.91*       | 60.50        | 74.16        | 65.73         | 72.50        | <b>68.96</b> |              |
| 2   | CoLk 15469       | 68.23*       | 61.40        | 37.39        | 64.33         | 68.50        | <b>59.97</b> |              |
| 3   | CoP 15438        | 64.65        | 59.07        | 60.77        | 64.47         | 75.67        | <b>64.93</b> |              |
| 4   | CoP 15439        | 76.98*       | 69.68        | 59.33        | 66.02         | 72.43        | <b>68.89</b> |              |
| 5   | CoP 15440        | 74.97*       | 74.50*       | 51.09        | 65.35         | 89.77        | <b>71.14</b> | <b>3</b>     |
| 6   | CoSe 15453       | 89.30*       | 54.94        | 66.33        | 65.59         | 80.01        | <b>71.23</b> | <b>2</b>     |
| 7   | CoSe 15454       | 85.23*       | 61.88        | 57.48        | 63.30         | -            | <b>66.97</b> |              |
|   | <b>Standards</b> | -            |              |              |               |              |              |              |
| 1   | BO 91            | 57.44        | 53.60        | 62.42        | 68.11         | 79.40        | <b>64.19</b> |              |
| 2   | CoP 9301         | 54.69        | 49.30        | 71.28        | 62.35         | 83.33        | <b>64.19</b> |              |
| 3   | CoP 06436        | 63.07        | 61.29        | 95.07        | 70.56         | 69.43        | <b>71.88</b> | <b>1</b>     |
|   | <b>GM</b>        | <b>70.65</b> | <b>60.62</b> | <b>63.53</b> | <b>65.58</b>  | <b>76.78</b> | <b>67.24</b> |              |
|   | SE(m)            | 0.73         | 3.79         | 2.10         | 0.90          | 5.84         |              |              |
|   | CD               | 2.17         | 11.34        | 6.23         | 2.69          | 12.15        |              |              |
|   | CV               | 4.83         | 10.81        | 6.72         | 3.88          | 9.31         |              |              |
| <b>Top three qualifying entries at each locations</b> |                  |              |              |              |               |              |              |              |
|   | 1                | CoSe 15453   | CoP 15440    |              |               |              |              |              |
|   | 2                | CoSe 15454   | CoP 15439    |              |               |              |              |              |
|   | 3                | CoP 15439    |              |              |               |              |              |              |

\* Significantly superior the over best standard.

**No. of locations where an entry recorded >10% improvement:** CoLk 15468 (1), CoP 15439 (2), CoP 15440 (2), CoSe 15453 (1), CoSe 15454 (1)

**Performance across the locations:** None of the test entries recorded >10% improvement over the best standard in the zone for cane yield. The standard CoP 06436 ranked top with 71.88 t/ha of cane yield across locations followed by entries CoSe 15453 and CoP 15440 which ranked second and third in the zone with 71.23 t/ha and 71.14 t/ha of mean cane yield respectively. The test entries CoSe 15453 and CoP 15440 recorded >10 improvement over standard at one and two centres respectively.

**Table 5.7.3. CCS (%) at harvest**

| S. No. | Entries   | Seorahi      | Pusa         | Moti pur     | Bethuad ahari | Buralik son  | Mean         | Overall rank |
|--------|---|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| 1      | CoLk 15468  | 12.65        | 11.35        | 12.02        | 12.42         | 11.65        | <b>12.02</b> | <b>3</b>     |
| 2      | CoLk 15469  | 12.36        | 11.40        | 11.69        | 12.49         | 12.44        | <b>12.08</b> | <b>2</b>     |
| 3      | CoP 15438   | 10.89        | 11.99        | 10.66        | 12.24         | 11.59        | <b>11.47</b> |              |
| 4      | CoP 15439   | 12.06        | 11.32        | 11.48        | 12.54         | 12.44        | <b>11.97</b> |              |
| 5      | CoP 15440   | 12.37        | 11.78        | 11.08        | 12.34         | 12.20        | <b>11.95</b> |              |
| 6      | CoSe 15453  | 12.12        | 12.01        | 11.90        | 12.20         | 11.59        | <b>11.96</b> |              |
| 7      | CoSe 15454  | 11.71        | 11.52        | 11.55        | 12.16         | -            | <b>11.74</b> |              |
|        | <b>Standards</b>                                      | -            |              |              |               |              |              |              |
| 1      | BO 91   | 10.01        | 11.46        | 11.35        | 12.01         | 12.18        | <b>11.40</b> |              |
| 2      | CoP 9301  | 12.54        | 12.21        | 11.67        | 12.70         | 11.71        | <b>12.17</b> | <b>1</b>     |
| 3      | CoP 06436   | 10.91        | 12.03        | 11.28        | 11.55         | 12.35        | <b>11.62</b> |              |
|        | <b>GM</b>   | <b>11.76</b> | <b>11.71</b> | <b>11.47</b> | <b>12.27</b>  | <b>12.02</b> | <b>11.84</b> |              |
|        | SE(m)   | 0.20         | 0.18         | 0.17         | 0.03          | 0.17         |              |              |
|        | CD  | 0.59         | 0.55         | 0.49         | 0.10          | 0.35         |              |              |
|        | CV  | 2.93         | 2.72         | 4.50         | 2.42          | 1.70         |              |              |
|        | <b>Top three qualifying entries at each locations</b> |              |              |              |               |              |              |              |
|        | 1   |              |              |              |               |              |              |              |
|        | 2   |              |              |              |               |              |              |              |
|        | 3   |              |              |              |               |              |              |              |

**No. of locations where an entry recorded >5% improvement: Nil**

**Performance across the locations:** None of the test entries recorded >5% improvement for CCS% over best standard in the zone. The standard CoP 9301 ranked first in the zone with 12.17% mean CCS%. Test entries CoLk 15469 & CoLk 15468 ranked second and third in the zone with 12.08% and 12.02% mean CCS% respectively.



**Table 5.7.4. Sucrose (%) at harvest**

| S. No.  | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         | Overall rank |
|---|------------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| 1   | CoLk 15468       | 18.26        | 16.52        | 17.26        | 17.86         | 17.42        | <b>17.46</b> | <b>3</b>     |
| 2   | CoLk 15469       | 17.93        | 16.58        | 16.78        | 17.93         | 18.15        | <b>17.47</b> | <b>2</b>     |
| 3   | CoP 15438        | 15.82        | 17.41        | 15.37        | 17.67         | 17.10        | <b>16.67</b> |              |
| 4   | CoP 15439        | 17.46        | 16.41        | 16.40        | 18.04         | 18.15        | <b>17.29</b> |              |
| 5   | CoP 15440        | 17.90        | 17.13        | 15.90        | 17.75         | 17.90        | <b>17.32</b> |              |
| 6   | CoSe 15453       | 17.53        | 17.43        | 17.12        | 17.64         | 17.09        | <b>17.36</b> |              |
| 7   | CoSe 15454       | 16.92        | 16.66        | 16.62        | 17.55         | -            | <b>16.94</b> |              |
|   | <b>Standards</b> | -            |              |              |               |              |              |              |
| 1   | BO 91            | 15.39        | 16.63        | 16.29        | 17.38         | 17.90        | <b>16.72</b> |              |
| 2   | CoP 9301         | 18.10        | 17.66        | 16.73        | 18.20         | 17.42        | <b>17.62</b> | <b>1</b>     |
| 3   | CoP 06436        | 15.99        | 17.50        | 16.26        | 16.71         | 18.12        | <b>16.92</b> |              |
|   | <b>GM</b>        | <b>17.13</b> | <b>16.99</b> | <b>16.47</b> | <b>17.67</b>  | <b>17.69</b> | <b>17.18</b> |              |
|   | SE(m)            | 0.28         | 0.25         | 0.24         | 0.04          | 0.16         |              |              |
|   | CD               | 0.82         | 0.76         | 0.70         | 0.13          | 0.34         |              |              |
|   | CV               | 2.79         | 2.59         | 4.49         | 2.19          | 1.13         |              |              |
| <b>Top three qualifying entries at each locations</b> |                  |              |              |              |               |              |              |              |
|   | 1                |              |              |              |               |              |              |              |
|   | 2                |              |              |              |               |              |              |              |
|   | 3                |              |              |              |               |              |              |              |

**No. of locations where an entry recorded >5% improvement: Nil.**

**Performance across the locations:** None of the test entries recorded >5% improvement over best standard for sucrose% across the locations. The standard CoP 9301 ranked top in the zone with 17.62% mean sucrose percent. The test entries CoLk 15469 and CoLk 15468 ranked second and third respectively in the zone with 17.47% and 17.46% mean sucrose percent respectively.

**Table 5.7.5. Brix (%) at harvest**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoLk 15468       | 20.60        | 18.97        | 19.40        | 19.99         | 21.07        | <b>20.01</b> |
| 2      | CoLk 15469       | 20.40        | 19.00        | 18.70        | 19.97         | 20.93        | <b>19.80</b> |
| 3      | CoP 15438        | 17.92        | 19.87        | 17.30        | 19.94         | 20.13        | <b>19.03</b> |
| 4      | CoP 15439        | 19.80        | 18.67        | 18.07        | 20.21         | 20.93        | <b>19.54</b> |
| 5      | CoP 15440        | 20.27        | 19.60        | 17.72        | 19.85         | 20.87        | <b>19.66</b> |
| 6      | CoSe 15453       | 19.84        | 19.87        | 19.17        | 19.97         | 20.13        | <b>19.80</b> |
| 7      | CoSe 15454       | 19.10        | 18.87        | 18.60        | 19.79         | -            | <b>19.09</b> |
|        | <b>Standards</b> | -            |              |              |               |              |              |
| 1      | BO 91            | 17.51        | 18.93        | 18.12        | 19.70         | 20.93        | <b>19.04</b> |
| 2      | CoP 9301         | 20.40        | 19.33        | 18.57        | 20.22         | 20.87        | <b>19.88</b> |
| 3      | CoP 06436        | 18.14        | 20.07        | 18.27        | 18.94         | 21.13        | <b>19.31</b> |
|        | <b>GM</b>        | <b>19.40</b> | <b>19.32</b> | <b>18.39</b> | <b>19.86</b>  | <b>20.78</b> | <b>19.51</b> |
|        | SE(m)            | 0.40         | 0.29         | 0.31         | 0.05          | 1.12         |              |
|        | CD               | 1.20         | 0.86         | 0.91         | 0.16          | 2.32         |              |
|        | CV               | 3.61         | 2.57         | 4.89         | 1.77          | 1.59         |              |

**Table 5.7.6. Purity (%) at harvest**

| S. No. | Entries          | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|------------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoLk 15468       | 88.63        | 87.10        | 89.17        | 89.34         | 82.70        | <b>87.39</b> |
| 2      | CoLk 15469       | 87.85        | 87.27        | 88.73        | 89.78         | 86.72        | <b>88.07</b> |
| 3      | CoP 15438        | 87.60        | 87.60        | 88.84        | 88.62         | 84.93        | <b>87.52</b> |
| 4      | CoP 15439        | 88.17        | 87.90        | 90.81        | 89.26         | 86.82        | <b>88.59</b> |
| 5      | CoP 15440        | 88.28        | 87.37        | 89.72        | 89.42         | 85.78        | <b>88.11</b> |
| 6      | CoSe 15453       | 88.34        | 87.73        | 89.31        | 88.33         | 84.88        | <b>87.72</b> |
| 7      | CoSe 15454       | 88.56        | 88.30        | 89.35        | 88.68         | -            | <b>88.72</b> |
|        | <b>Standards</b> | -            |              |              |               |              |              |
| 1      | BO 91            | 87.89        | 87.80        | 89.85        | 88.22         | 85.52        | <b>87.86</b> |
| 2      | CoP 9301         | 88.68        | 88.30        | 90.11        | 90.01         | 83.48        | <b>88.12</b> |
| 3      | CoP 06436        | 88.16        | 87.23        | 89.00        | 88.23         | 85.74        | <b>87.67</b> |
|        | <b>GM</b>        | <b>88.22</b> | <b>87.66</b> | <b>89.49</b> | <b>88.99</b>  | <b>85.17</b> | <b>87.98</b> |
|        | SE(m)            | 0.27         | 0.31         | 0.66         | 0.10          | 0.92         |              |
|        | CD               | 0.80         | 0.97         | 1.97         | 0.31          | 1.92         |              |
|        | CV               | 0.53         | 0.61         | 4.28         | 0.57          | 1.33         |              |

**Table 5.7.7. Pol (%) cane at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoLk 15468       |         | 12.72        | 13.40        |               |             | <b>13.06</b> |
| 2      | CoLk 15469       |         | 12.78        | 13.00        |               |             | <b>12.89</b> |
| 3      | CoP 15438        |         | 13.44        | 11.87        |               |             | <b>12.66</b> |
| 4      | CoP 15439        |         | 12.65        | 12.83        |               |             | <b>12.74</b> |
| 5      | CoP 15440        |         | 13.28        | 12.32        |               |             | <b>12.80</b> |
| 6      | CoSe 15453       |         | 13.44        | 13.19        |               |             | <b>13.32</b> |
| 7      | CoSe 15454       |         | 12.81        | 12.90        |               |             | <b>12.86</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | BO 91            |         | 12.86        | 12.68        |               |             | <b>12.77</b> |
| 2      | CoP 9301         |         | 13.72        | 12.96        |               |             | <b>13.34</b> |
| 3      | CoP 06436        |         | 13.47        | 12.62        |               |             | <b>13.05</b> |
|        | <b>GM</b>        |         | <b>13.12</b> | <b>12.78</b> |               |             | <b>12.95</b> |
|        | SE(m)            |         | 0.18         | 0.17         |               |             |              |
|        | CD               |         | 0.54         | 0.52         |               |             |              |
|        | CV               |         | 2.40         | 2.37         |               |             |              |

**Table 5.7.8. Extraction (%) at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoLk 15468       |         | 56.60        | 56.82        |               |             | <b>56.71</b> |
| 2      | CoLk 15469       |         | 57.85        | 56.83        |               |             | <b>57.34</b> |
| 3      | CoP 15438        |         | 58.10        | 56.32        |               |             | <b>57.21</b> |
| 4      | CoP 15439        |         | 60.15        | 57.63        |               |             | <b>58.89</b> |
| 5      | CoP 15440        |         | 61.30        | 57.62        |               |             | <b>59.46</b> |
| 6      | CoSe 15453       |         | 57.40        | 59.18        |               |             | <b>58.29</b> |
| 7      | CoSe 15454       |         | 58.10        | 57.07        |               |             | <b>57.59</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | BO 91            |         | 59.20        | 53.10        |               |             | <b>56.15</b> |
| 2      | CoP 9301         |         | 60.80        | 59.55        |               |             | <b>60.18</b> |
| 3      | CoP 06436        |         | 59.40        | 54.13        |               |             | <b>56.77</b> |
|        | <b>GM</b>        |         | <b>58.89</b> | <b>56.83</b> |               |             | <b>57.86</b> |
|        | SE(m)            |         | 1.79         | 0.72         |               |             |              |
|        | CD               |         | 5.65         | 2.13         |               |             |              |
|        | CV               |         | 5.28         | 5.18         |               |             |              |

**Table 5.7.9. Fibre (%) at harvest**

| S. No. | Entries          | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|------------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoLk 15468       |         | 13.20        | 12.51        |               |             | <b>12.86</b> |
| 2      | CoLk 15469       |         | 12.95        | 12.52        |               |             | <b>12.74</b> |
| 3      | CoP 15438        |         | 12.80        | 12.78        |               |             | <b>12.79</b> |
| 4      | CoP 15439        |         | 12.90        | 11.80        |               |             | <b>12.35</b> |
| 5      | CoP 15440        |         | 12.45        | 12.49        |               |             | <b>12.47</b> |
| 6      | CoSe 15453       |         | 12.91        | 12.93        |               |             | <b>12.92</b> |
| 7      | CoSe 15454       |         | 13.10        | 12.37        |               |             | <b>12.74</b> |
|        | <b>Standards</b> |         |              |              |               |             |              |
| 1      | BO 91            |         | 12.65        | 12.11        |               |             | <b>12.38</b> |
| 2      | CoP 9301         |         | 12.30        | 12.52        |               |             | <b>12.41</b> |
| 3      | CoP 06436        |         | 13.05        | 12.40        |               |             | <b>12.73</b> |
|        | <b>GM</b>        |         | <b>12.83</b> | <b>12.45</b> |               |             | <b>12.64</b> |
|        | SE(m)            |         | 0.25         | 0.29         |               |             |              |
|        | CD               |         | 0.78         | 0.88         |               |             |              |
|        | CV               |         | 3.33         | 4.10         |               |             |              |

**Table 5.7.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Entries          | Seorahi       | Pusa         | Motipur       | Bethua dahari | Buralik son  | Mean          |
|--------|------------------|---------------|--------------|---------------|---------------|--------------|---------------|
| 1      | CoLk 15468       | 94.00         | 86.37        | 101.35        | 121.86        | 82.00        | <b>97.12</b>  |
| 2      | CoLk 15469       | 93.00         | 81.05        | 49.85         | 117.25        | 83.42        | <b>84.91</b>  |
| 3      | CoP 15438        | 107.00        | 95.87        | 121.93        | 116.59        | 82.08        | <b>104.69</b> |
| 4      | CoP 15439        | 100.00        | 98.37        | 76.01         | 118.75        | 79.37        | <b>94.50</b>  |
| 5      | CoP 15440        | 106.00        | 102.83       | 88.68         | 119.04        | 91.34        | <b>101.58</b> |
| 6      | CoSe 15453       | 113.00        | 92.15        | 95.59         | 117.71        | 84.26        | <b>100.54</b> |
| 7      | CoSe 15454       | 100.00        | 95.53        | 91.57         | 116.79        |              | <b>100.97</b> |
|        | <b>Standards</b> | -             |              |               |               |              |               |
| 1      | BO 91            | 93.00         | 83.60        | 139.36        | 122.51        | 86.58        | <b>105.01</b> |
| 2      | CoP 9301         | 98.00         | 85.81        | 109.59        | 110.58        | 86.09        | <b>98.01</b>  |
| 3      | CoP 06436        | 99.00         | 87.67        | 132.97        | 123.33        | 87.99        | <b>106.19</b> |
|        | <b>GM</b>        | <b>100.30</b> | <b>90.93</b> | <b>100.69</b> | <b>118.44</b> | <b>84.79</b> | <b>99.35</b>  |
|        | SE(m)            | 0.99          | 6.49         | 6.05          | 1.35          | 6.22         |               |
|        | CD               | 2.94          | 20.46        | 17.97         | 4.00          | 12.93        |               |
|        | CV               | 4.64          | 12.37        | 10.20         | 3.34          | 8.98         |               |

**Table 5.7.11. Stalk Length (cm) at harvest**

| S. No. | Entries          | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralik son   | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1      | CoLk 15468       | 178.00        | 205.00        | 251.66        | 249.67        | 237.67        | <b>224.40</b> |
| 2      | CoLk 15469       | 172.00        | 212.00        | 195.00        | 253.33        | 228.67        | <b>212.20</b> |
| 3      | CoP 15438        | 181.00        | 210.00        | 228.33        | 242.33        | 248.67        | <b>222.07</b> |
| 4      | CoP 15439        | 200.00        | 215.00        | 291.66        | 242.33        | 242.00        | <b>238.20</b> |
| 5      | CoP 15440        | 174.00        | 225.00        | 256.67        | 241.67        | 257.67        | <b>231.00</b> |
| 6      | CoSe 15453       | 252.00        | 207.00        | 271.67        | 234.00        | 247.00        | <b>242.33</b> |
| 7      | CoSe 15454       | 210.00        | 242.37        | 280.00        | 234.00        |               | <b>241.59</b> |
|        | <b>Standards</b> | -             |               |               |               |               |               |
| 1      | BO 91            | 193.00        | 210.00        | 236.67        | 217.33        | 275.33        | <b>226.47</b> |
| 2      | CoP 9301         | 165.00        | 208.00        | 245.00        | 231.33        | 262.67        | <b>222.40</b> |
| 3      | CoP 06436        | 177.00        | 215.00        | 296.00        | 248.00        | 214.33        | <b>230.07</b> |
|        | <b>GM</b>        | <b>190.20</b> | <b>214.94</b> | <b>255.27</b> | <b>239.40</b> | <b>246.00</b> | <b>229.07</b> |
|        | SE(m)            | 4.41          | 11.56         | 3.48          | 4.23          | 6.43          |               |
|        | CD               | 13.10         | 36.43         | 10.35         | 12.57         | 13.37         |               |
|        | CV               | 4.02          | 9.32          | 4.36          | 4.83          | 3.20          |               |

**Table 5.7.12. Stalk Diameter (cm) at harvest**

| S. No. | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|------------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoLk 15468       | 2.10        | 2.35        | 2.40        | 1.86          | 2.47        | <b>2.24</b> |
| 2      | CoLk 15469       | 2.30        | 2.28        | 2.77        | 1.88          | 2.57        | <b>2.36</b> |
| 3      | CoP 15438        | 2.00        | 2.14        | 1.97        | 2.02          | 2.43        | <b>2.11</b> |
| 4      | CoP 15439        | 1.90        | 2.17        | 2.27        | 2.04          | 2.57        | <b>2.19</b> |
| 5      | CoP 15440        | 2.20        | 2.30        | 2.43        | 1.99          | 2.60        | <b>2.30</b> |
| 6      | CoSe 15453       | 2.30        | 2.12        | 2.57        | 1.82          | 2.43        | <b>2.25</b> |
| 7      | CoSe 15454       | 2.00        | 2.22        | 2.23        | 1.95          |             | <b>2.10</b> |
|        | <b>Standards</b> | -           |             |             |               |             |             |
| 1      | BO 91            | 2.00        | 2.10        | 1.93        | 1.79          | 2.47        | <b>2.06</b> |
| 2      | CoP 9301         | 1.80        | 2.07        | 2.13        | 1.74          | 2.70        | <b>2.09</b> |
| 3      | CoP 06436        | 2.20        | 2.41        | 2.20        | 2.09          | 2.23        | <b>2.23</b> |
|        | <b>GM</b>        | <b>2.08</b> | <b>2.22</b> | <b>2.29</b> | <b>1.92</b>   | <b>2.50</b> | <b>2.19</b> |
|        | SE(m)            | 0.06        | 0.12        | 0.07        | 0.05          | 0.09        |             |
|        | CD               | 0.17        | 0.38        | 0.21        | 0.15          | 0.17        |             |
|        | CV               | 4.66        | 9.38        | 5.38        | 7.03          | 4.19        |             |

**Table 5.7.13. Single Cane Weight (kg) at harvest**

| S. No. | Entries          | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|------------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoLk 15468       | 0.77        | 0.71        | 1.08        | 0.52          | 1.05        | <b>0.83</b> |
| 2      | CoLk 15469       | 0.74        | 0.76        | 0.97        | 0.54          | 0.98        | <b>0.80</b> |
| 3      | CoP 15438        | 0.61        | 0.62        | 0.64        | 0.52          | 1.09        | <b>0.70</b> |
| 4      | CoP 15439        | 0.77        | 0.71        | 1.27        | 0.54          | 1.08        | <b>0.87</b> |
| 5      | CoP 15440        | 0.71        | 0.73        | 1.04        | 0.55          | 1.14        | <b>0.83</b> |
| 6      | CoSe 15453       | 0.79        | 0.60        | 1.19        | 0.52          | 1.12        | <b>0.84</b> |
| 7      | CoSe 15454       | 0.85        | 0.65        | 1.23        | 0.54          |             | <b>0.82</b> |
|        | <b>Standards</b> | -           |             |             |               |             |             |
| 1      | BO 91            | 0.62        | 0.64        | 0.65        | 0.54          | 1.10        | <b>0.71</b> |
| 2      | CoP 9301         | 0.56        | 0.58        | 1.03        | 0.51          | 1.22        | <b>0.78</b> |
| 3      | CoP 06436        | 0.63        | 0.70        | 1.22        | 0.61          | 0.92        | <b>0.82</b> |
|        | <b>GM</b>        | <b>0.70</b> | <b>0.67</b> | <b>1.03</b> | <b>0.54</b>   | <b>1.08</b> | <b>0.80</b> |
|        | SE(m)            | 0.01        | 0.04        | 0.64        | 0.01          | 0.06        |             |
|        | CD               | 0.02        | 0.13        | 0.19        | 0.04          | 0.11        |             |
|        | CV               | 1.43        | 10.30       | 10.72       | 6.49          | 6.24        |             |

**Table 5.7.14. Number of Shoots ('000/ha) at 180 days**

| S. No. | Entries          | Seorahi | Pusa          | Motipur       | Bethua dahari | Buralik son  | Mean          |
|--------|------------------|---------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoLk 15468       |         | 107.10        | 107.84        | 126.30        | 78.33        | <b>104.89</b> |
| 2      | CoLk 15469       |         | 105.90        | 54.90         | 121.08        | 82.15        | <b>91.01</b>  |
| 3      | CoP 15438        |         | 121.60        | 136.39        | 121.23        | 79.61        | <b>114.71</b> |
| 4      | CoP 15439        |         | 142.10        | 84.25         | 123.62        | 74.32        | <b>106.07</b> |
| 5      | CoP 15440        |         | 145.60        | 96.72         | 124.30        | 87.79        | <b>113.60</b> |
| 6      | CoSe 15453       |         | 115.20        | 112.27        | 122.96        | 82.17        | <b>108.15</b> |
| 7      | CoSe 15454       |         | 112.80        | 97.75         | 123.31        |              | <b>111.29</b> |
|        | <b>Standards</b> |         |               |               |               |              |               |
| 1      | BO 91            |         | 118.67        | 149.56        | 127.81        | 82.77        | <b>119.70</b> |
| 2      | CoP 9301         |         | 121.20        | 119.48        | 117.13        | 81.06        | <b>109.72</b> |
| 3      | CoP 06436        |         | 123.85        | 143.17        | 128.30        | 84.37        | <b>119.92</b> |
|        | <b>GM</b>        |         | <b>121.40</b> | <b>112.33</b> | <b>124.41</b> | <b>81.39</b> | <b>109.88</b> |
|        | SE(m)            |         | 7.08          | 5.94          | 1.00          | 7.01         |               |
|        | CD               |         | 21.19         | 17.66         | 2.99          | 14.57        |               |
|        | CV               |         | 10.10         | 9.16          | 2.80          | 10.54        |               |

**Table 5.7.15. Number of Tillers ('000/ha) at 90 days**

| S. No. | Entries          | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralikson   | Mean          |
|--------|------------------|---------------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoLk 15468       | 136.00        | 98.17         | 132.36        | 131.59        | 90.00        | <b>117.62</b> |
| 2      | CoLk 15469       | 131.00        | 95.25         | 93.22         | 125.49        | 93.30        | <b>107.65</b> |
| 3      | CoP 15438        | 154.00        | 115.10        | 157.58        | 125.18        | 90.60        | <b>128.49</b> |
| 4      | CoP 15439        | 138.00        | 123.25        | 98.37         | 128.34        | 86.10        | <b>114.81</b> |
| 5      | CoP 15440        | 161.00        | 121.17        | 136.58        | 130.11        | 98.92        | <b>129.56</b> |
| 6      | CoSe 15453       | 194.00        | 103.22        | 126.08        | 127.93        | 92.32        | <b>128.71</b> |
| 7      | CoSe 15454       | 146.00        | 102.85        | 126.48        | 129.15        |              | <b>126.12</b> |
|        | <b>Standards</b> | -             |               |               |               |              |               |
| 1      | BO 91            | 149.00        | 103.17        | 205.07        | 131.82        | 94.32        | <b>136.68</b> |
| 2      | CoP 9301         | 133.00        | 101.80        | 180.87        | 120.91        | 93.35        | <b>125.99</b> |
| 3      | CoP 06436        | 149.00        | 105.27        | 155.84        | 133.25        | 96.00        | <b>127.87</b> |
|        | <b>GM</b>        | <b>149.10</b> | <b>106.93</b> | <b>141.25</b> | <b>128.38</b> | <b>92.77</b> | <b>124.35</b> |
|        | SE(m)            | 1.75          | 5.91          | 4.18          | 1.28          | 6.53         |               |
|        | CD               | 5.21          | 17.70         | 12.41         | 3.81          | 13.58        |               |
|        | CV               | 5.51          | 9.57          | 11.02         | 3.05          | 8.62         |               |

**Table 5.7.16 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| Entry / Locations                     | Seorahi   | Pusa      | Motipur   | Bethuadhari | Buralikson* |
|---------------------------------------|-----------|-----------|-----------|-------------|-------------|
| CoP 15438                             | Good      | Average   | Good      | Good        | Good        |
| CoP 15439                             | Average   | Very good | Good      | Very good   | Very Good   |
| CoP15440                              | Good      | Very good | Very good | Very good   | Good        |
| CoLk 15468                            | Good      | Good      | Very good | Average     | Good        |
| CoLk 15469                            | Average   | Good      | Very good | Good        | Good        |
| CoSe15453                             | Excellent | Good      | Excellent | Good        | Good        |
| CoSe15454                             | Good      | Good      | Good      | Good        | Very Good   |
| <b>Standards</b>                      |           |           |           |             |             |
| BO 91                                 | Good      | Good      | Good      | Good        | Good        |
| CoP 9301                              | Good      | Good      | Good      | Good        | Good        |
| CoP 06436                             | Very good | Good      | Very Good | Very Good   | Very Good   |
| Overall Performance of the Experiment | Good      | Very good | Very Good | Very good   | Good        |

**5.8. ADVANCED VARIETAL TRIAL (Midlate)  
 Mean of two plant and one ratoon crops (2019-2021)**

|                      |   |
|----------------------|---|
| <b>Centers (5)</b>   | Bethuadahari, Buralikson, Motipur, Pusa and Seorahi                             |
| <b>Entries (7)</b>   | CoLk 15468, CoLk 15469, CoP 15438, CoP 15439, CoP 15440, CoSe 15453, CoSe 15454 |
| <b>Standards (3)</b> | BO 91, CoP 9301 and CoP 06436   |
| <b>Design</b>        | RBD   |
| <b>Replications</b>  | Three   |
| <b>Plot size</b>     | Gross : 6 m x 8 rows x 0.90 m<br>Net : 5 m x 6 rows x 0.90 m                    |

In the North Central and North East zones, five midlate clones were evaluated along with three standards during the crop seasons 2019-2021. The trial was conducted by five centres across the zone. Pooled data of two plant and one ratoon trials of five centres are presented in tables 5.8.1. to 5.8.4. and in figures 5.8.1. to 5.8.4. The salient results pertaining to CCS (t/ha), cane yield (t/ha), CCS% and sucrose% are given below.

**Commercial Cane Sugar (t/ha):**

The test entry CoSe 15453 (10.28 t/ha) ranked first in the zone and recorded >10% improvement over the best standard for CCS yield across locations based on weighted mean. Another test entry CoP 15440 (9.88 t/ha) ranked second in the zone followed by the entry CoP 15439 with 9.33 t/ha mean sugar yield.

**Cane Yield (t/ha):**

For cane yield, the test entry CoSe 15453 (84.61 t/ha) ranked first in the zone and recorded >10% improvement over the best standard for CCS yield across locations based on weighted mean. Another test entry CoP 15440 (81.04 t/ha) ranked second in the zone followed by the entry CoP 15439 with 80.54 t/ha mean cane yield.

**Commercial Cane Sugar (%):**

None of the test entries recorded >5% improvement over the best standard for CCS% across locations based on weighted mean. The standard CoP 9301 ranked top in the zone with 12.41% mean CCS%. The test entries CoLk 15469 (12.26%) and CoP 15439 (12.21%) ranked second and third in the zone respectively.

**Sucrose%:** For sucrose%, none of the test entries recorded >5% improvement over the best standard based on weighted mean. The standard CoP 9301 ranked top in the zone with 18.01% mean sucrose%. The test entries CoLk 15469 (17.78%) and CoLk 15468 (17.76%) ranked second and third in the zone respectively.

**Overall performance:**

Based on the pooled mean of two plant and one ratoon crops none of the entries was identified as qualifying entry compared to the best standard CoP 9301 in the zone.



**Table 5.8.1. CCS at harvest (t/ha) - Pooled data of two plant and one ratoon crops**

| Sl No.           | Entries    | Seorahi    |       |       | Pusa         |       |       | Motipur |       |       | Bethuadahari |       |       |      |      |      |      |
|------------------|------------|------------|-------|-------|--------------|-------|-------|---------|-------|-------|--------------|-------|-------|------|------|------|------|
|                  |            | IP         | IIP   | R     | Mean         | IP    | IIP   | R       | Mean  | IP    | IIP          | R     | Mean  |      |      |      |      |
| 1                | CoP 15438  | 9.78       | 9.35  | 7.04  | 8.72         | 10.59 | 10.33 | 7.08    | 9.33  | 10.98 | 10.45        | 6.48  | 8.47  | 8.38 | 8.79 | 7.89 | 8.35 |
| 2                | CoP 15439  | 9.98       | 10.02 | 9.29  | 9.76         | 14.93 | 12.94 | 7.89    | 11.92 | 10.76 | 12.28        | 6.81  | 9.95  | 8.89 | 8.77 | 8.28 | 8.65 |
| 3                | CoP 15440  | 9.14       | 9.87  | 9.27  | 9.43         | 15.30 | 14.35 | 8.78    | 12.81 | 9.61  | 9.11         | 5.67  | 8.13  | 8.58 | 8.90 | 8.07 | 8.52 |
| 4                | CoSe 15453 | 14.12      | 13.98 | 10.82 | 12.97        | 12.91 | 11.93 | 6.60    | 10.48 | 11.53 | 11.01        | 7.90  | 10.15 | 9.05 | 9.07 | 8.00 | 8.71 |
| 5                | CoSe 15454 | 10.64      | 11.89 | 9.98  | 10.84        | 11.26 | 10.58 | 7.11    | 9.65  | 8.77  | 10.41        | 6.64  | 8.61  | 8.94 | 9.12 | 7.70 | 8.59 |
| 6                | CoLk 15468 | 8.81       | 10.05 | 9.08  | 9.31         | 8.44  | 8.04  | 6.91    | 7.80  | 11.85 | 8.60         | 8.90  | 9.78  | 8.80 | 8.84 | 8.16 | 8.60 |
| 7                | CoLk 15469 | 8.35       | 9.47  | 8.43  | 8.75         | 10.71 | 9.18  | 7.00    | 8.96  | 7.86  | 6.19         | 4.37  | 6.14  | 8.58 | 8.80 | 8.04 | 8.47 |
| <b>Standards</b> |            |            |       |       |              |       |       |         |       |       |              |       |       |      |      |      |      |
| 1                | BO 91      | 10.27      | 9.27  | 6.10  | 8.55         | 11.36 | 9.39  | 6.12    | 8.96  | 8.68  | 10.84        | 7.08  | 8.87  | 9.18 | 8.85 | 8.18 | 8.74 |
| 2                | CoP 9301   | 8.67       | 8.75  | 6.86  | 8.09         | 10.81 | 9.45  | 6.02    | 8.76  | 9.46  | 13.93        | 8.32  | 10.57 | 8.95 | 8.75 | 7.92 | 8.54 |
| 3                | CoP 06436  | 8.66       | 9.10  | 6.89  | 8.22         | 12.66 | 10.21 | 7.37    | 10.08 | 8.37  | 9.84         | 10.72 | 9.64  | 9.49 | 8.94 | 8.15 | 8.86 |
|                  | Mean       | 9.85       | 10.18 | 8.37  | 9.47         | 11.90 | 10.64 | 7.09    | 9.88  | 9.79  | 10.27        | 7.29  | 9.12  | 9.21 | 8.85 | 8.08 | 8.71 |
| Sl No.           | Entries    | Buralikson |       |       | GM (Wt. Avg) |       |       | Rank    |       |       |              |       |       |      |      |      |      |
|                  |            | IP         | IIP   | R     | Mean         |       |       |         |       |       |              |       |       |      |      |      |      |
| 1                | CoP 15438  | 9.16       | 8.55  | 8.79  | 8.83         | 8.74  |       |         |       |       |              |       |       |      |      |      |      |
| 2                | CoP 15439  | 9.28       | 8.35  | 9.02  | 8.88         | 9.83  | 3     |         |       |       |              |       |       |      |      |      |      |
| 3                | CoP 15440  | 10.07      | 10.55 | 10.96 | 10.53        | 9.88  | 2     |         |       |       |              |       |       |      |      |      |      |
| 4                | CoSe 15453 | 9.30       | 8.70  | 9.29  | 9.10         | 10.28 | 1     |         |       |       |              |       |       |      |      |      |      |
| 5                | CoSe 15454 | -          | -     | -     | -            | 9.42  |       |         |       |       |              |       |       |      |      |      |      |
|                  | CoLk 15468 | 9.48       | 9.12  | 8.44  | 9.01         | 8.90  |       |         |       |       |              |       |       |      |      |      |      |
|                  | CoLk 15469 | 9.46       | 8.52  | 8.53  | 8.84         | 8.23  |       |         |       |       |              |       |       |      |      |      |      |
| <b>Standards</b> |            |            |       |       |              |       |       |         |       |       |              |       |       |      |      |      |      |
| 1                | BO 91      | 10.48      | 9.65  | 9.66  | 9.93         | 9.01  |       |         |       |       |              |       |       |      |      |      |      |
| 2                | CoP 9301   | 10.50      | 10.02 | 9.77  | 10.10        | 9.21  |       |         |       |       |              |       |       |      |      |      |      |
| 3                | CoP 06436  | 9.32       | 8.02  | 8.57  | 8.64         | 9.09  |       |         |       |       |              |       |       |      |      |      |      |
|                  | Mean       | 9.67       | 9.05  | 9.23  | 9.32         | 9.26  |       |         |       |       |              |       |       |      |      |      |      |

**Table 5.8.2. Cane yield at harvest (t/ha) - Pooled data of two plant and one ratoon crops**

| Sl No.           | Entries    | Seorahi    |       |       |              | Pusa     |       |       |       | Motipur |       |       |       | Bethuadahari |       |       |      |
|------------------|------------|------------|-------|-------|--------------|----------|-------|-------|-------|---------|-------|-------|-------|--------------|-------|-------|------|
|                  |            | IP         | IIP   | R     | Mean         | IP       | IIP   | R     | Mean  | IP      | IIP   | R     | Mean  | IP           | IIP   | R     | Mean |
| 1                | CoP 15438  | 76.34      | 81.38 | 64.65 | 74.12        | 82.18    | 59.07 | 75.47 | 93.73 | 92.80   | 60.77 | 82.43 | 66.01 | 72.87        | 64.47 | 67.78 |      |
| 2                | CoP 15439  | 82.31      | 84.58 | 76.98 | 81.29        | 113.75   | 69.68 | 96.40 | 93.42 | 107.1   | 59.33 | 86.62 | 66.75 | 72.11        | 66.02 | 68.29 |      |
| 3                | CoP 15440  | 67.64      | 78.90 | 74.97 | 73.84        | 118.85   | 74.50 | 103.6 | 82.71 | 82.30   | 51.09 | 72.03 | 67.86 | 73.21        | 65.35 | 68.81 |      |
| 4                | CoSe 15453 | 102.73     | 105.7 | 89.30 | 99.25        | 113.04   | 54.94 | 88.73 | 99.20 | 95.99   | 66.33 | 87.17 | 69.02 | 75.44        | 65.59 | 70.02 |      |
| 5                | CoSe 15454 | 94.22      | 98.94 | 85.23 | 92.80        | 90.81    | 61.88 | 80.40 | 77.76 | 92.18   | 57.48 | 75.81 | 70.36 | 75.64        | 63.30 | 69.77 |      |
| 6                | CoLk 15468 | 72.36      | 78.03 | 71.91 | 74.10        | 63.61    | 60.50 | 63.71 | 99.40 | 77.87   | 74.16 | 83.81 | 69.89 | 74.47        | 65.73 | 70.03 |      |
| 7                | CoLk 15469 | 70.45      | 72.16 | 68.23 | 70.28        | 85.51    | 61.40 | 74.18 | 66.74 | 53.46   | 37.39 | 52.53 | 66.67 | 73.01        | 64.33 | 68.00 |      |
| <b>Standards</b> |            |            |       |       |              |          |       |       |       |         |       |       |       |              |       |       |      |
| 1                | BO 91      | 80.06      | 78.63 | 57.44 | 72.04        | 90.25    | 53.60 | 74.45 | 75.50 | 104.8   | 62.42 | 80.92 | 69.34 | 74.64        | 68.11 | 70.70 |      |
| 2                | CoP 9301   | 68.01      | 67.20 | 54.69 | 63.30        | 82.15    | 49.30 | 69.11 | 79.52 | 121.5   | 71.28 | 90.78 | 66.56 | 70.25        | 62.35 | 66.39 |      |
| 3                | CoP 06436  | 71.36      | 72.69 | 63.07 | 69.04        | 101.79   | 61.29 | 82.63 | 78.90 | 90.64   | 95.07 | 88.20 | 72.33 | 78.37        | 70.56 | 73.75 |      |
|                  | <b>GM</b>  | 78.55      | 81.82 | 70.65 | 77.01        | 94.19    | 60.62 | 80.87 | 84.73 | 91.88   | 63.53 | 80.05 | 69.41 | 74.42        | 67.01 | 70.28 |      |
| Sl No.           | Entries    | Buralikson |       |       | GM (Wt. Avg) | Rank     |       |       |       |         |       |       |       |              |       |       |      |
|                  |            | IP         | IIP   | R     |              |          |       |       |       |         |       |       |       |              |       |       |      |
| 1                | CoP 15438  | 72.53      | 71.47 | 75.67 | 74.61        |          |       |       |       |         |       |       |       |              |       |       |      |
| 2                | CoP 15439  | 72.00      | 65.90 | 72.43 | 80.54        | <b>3</b> |       |       |       |         |       |       |       |              |       |       |      |
| 3                | CoP 15440  | 86.00      | 84.93 | 89.77 | 81.04        | <b>2</b> |       |       |       |         |       |       |       |              |       |       |      |
| 4                | CoSe 15453 | 79.40      | 74.17 | 80.01 | 84.61        | <b>1</b> |       |       |       |         |       |       |       |              |       |       |      |
| 5                | CoSe 15454 | -          | -     | -     | 79.69        |          |       |       |       |         |       |       |       |              |       |       |      |
| 6                | CoLk 15468 | 74.50      | 72.10 | 72.50 | 72.94        |          |       |       |       |         |       |       |       |              |       |       |      |
| 7                | CoLk 15469 | 74.77      | 66.23 | 68.50 | 66.96        |          |       |       |       |         |       |       |       |              |       |       |      |
| <b>Standards</b> |            |            |       |       |              |          |       |       |       |         |       |       |       |              |       |       |      |
| 1                | BO 91      | 86.30      | 78.30 | 79.40 | 81.33        | 75.89    |       |       |       |         |       |       |       |              |       |       |      |
| 2                | CoP 9301   | 85.40      | 80.83 | 83.33 | 83.19        | 74.55    |       |       |       |         |       |       |       |              |       |       |      |
| 3                | CoP 06436  | 73.40      | 63.50 | 69.43 | 68.78        | 76.48    |       |       |       |         |       |       |       |              |       |       |      |
|                  | <b>GM</b>  | 78.26      | 73.05 | 76.79 | 76.03        | 76.73    |       |       |       |         |       |       |       |              |       |       |      |

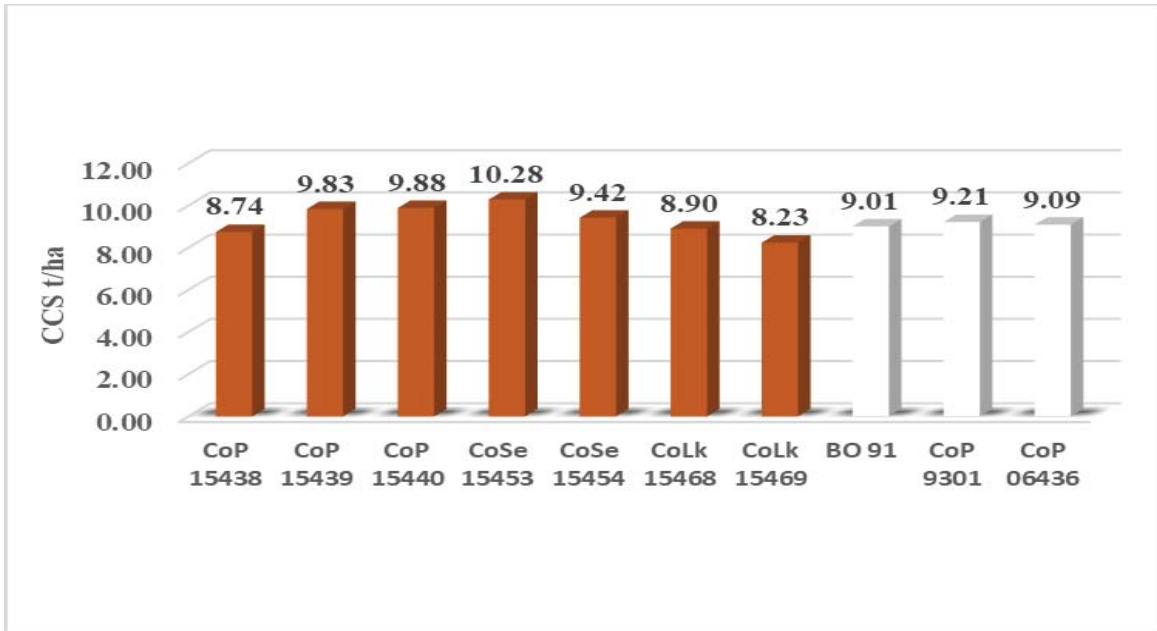
**Table 5.8.3. CCS (%) at harvest - Pooled data of two plant and one ratoon crops**

| Sl No.           | Entries    | Seorahi    |       |       |              | Pusa  |          |       |       | Motipur |       |       |       | Bethuadahari |       |       |       |
|------------------|------------|------------|-------|-------|--------------|-------|----------|-------|-------|---------|-------|-------|-------|--------------|-------|-------|-------|
|                  |            | IP         | IIP   | R     | Mean         | IP    | IIP      | R     | Mean  | IP      | IIP   | R     | Mean  | IP           | IIP   | R     | Mean  |
| 1                | CoP 15438  | 12.83      | 11.50 | 10.89 | 11.74        | 12.89 | 12.13    | 11.99 | 12.34 | 11.71   | 11.27 | 10.66 | 11.21 | 12.70        | 12.06 | 12.24 | 12.33 |
| 2                | CoP 15439  | 12.13      | 11.84 | 12.06 | 12.01        | 13.12 | 12.22    | 11.32 | 12.22 | 11.51   | 11.47 | 11.48 | 11.49 | 13.32        | 12.16 | 12.54 | 12.67 |
| 3                | CoP 15440  | 13.53      | 12.51 | 12.37 | 12.80        | 12.85 | 12.21    | 11.78 | 12.28 | 11.61   | 11.05 | 11.08 | 11.25 | 12.64        | 12.16 | 12.34 | 12.38 |
| 4                | CoSe 15453 | 13.75      | 13.22 | 12.12 | 13.03        | 12.51 | 12.11    | 12.01 | 12.21 | 11.57   | 11.47 | 11.90 | 11.65 | 13.12        | 12.03 | 12.20 | 12.45 |
| 5                | CoSe 15454 | 11.30      | 12.02 | 11.71 | 11.68        | 12.40 | 11.96    | 11.52 | 11.96 | 11.27   | 11.30 | 11.55 | 11.37 | 12.71        | 12.06 | 12.16 | 12.31 |
| 6                | CoLk 15468 | 12.18      | 12.48 | 12.65 | 12.44        | 13.29 | 12.00    | 11.35 | 12.21 | 11.92   | 11.05 | 12.02 | 11.66 | 12.59        | 11.87 | 12.42 | 12.29 |
| 7                | CoLk 15469 | 11.89      | 13.13 | 12.36 | 12.46        | 12.52 | 12.13    | 11.40 | 12.02 | 11.77   | 11.58 | 11.69 | 11.68 | 12.87        | 12.05 | 12.49 | 12.47 |
| <b>Standards</b> |            |            |       |       |              |       |          |       |       |         |       |       |       |              |       |       |       |
| 1                | BO 91      | 12.83      | 11.79 | 10.01 | 11.54        | 12.64 | 11.83    | 11.46 | 11.98 | 11.48   | 10.34 | 11.35 | 11.06 | 13.24        | 11.86 | 12.01 | 12.37 |
| 2                | CoP 9301   | 12.77      | 13.03 | 12.54 | 12.78        | 13.20 | 12.45    | 12.21 | 12.62 | 11.90   | 11.46 | 11.67 | 11.68 | 13.45        | 12.45 | 12.70 | 12.87 |
| 3                | CoP 06436  | 12.15      | 12.52 | 10.91 | 11.86        | 12.41 | 12.03    | 12.03 | 12.16 | 10.60   | 10.86 | 11.28 | 10.91 | 13.11        | 11.40 | 11.55 | 12.02 |
|                  | <b>GM</b>  | 12.53      | 12.40 | 11.76 | 12.23        | 12.78 | 12.11    | 11.71 | 12.20 | 11.53   | 11.19 | 11.47 | 11.40 | 13.27        | 11.90 | 12.09 | 12.42 |
| Sl No.           | Entries    | Buralikson |       |       | GM (Wt. Avg) | Rank  |          |       |       |         |       |       |       |              |       |       |       |
|                  |            | IP         | IIP   | R     |              |       |          |       |       |         |       |       |       |              |       |       |       |
| 1                | CoP 15438  | 12.64      | 11.98 | 11.59 | 12.07        | 11.94 |          |       |       |         |       |       |       |              |       |       |       |
| 2                | CoP 15439  | 12.88      | 12.64 | 12.44 | 12.65        | 12.21 | <b>3</b> |       |       |         |       |       |       |              |       |       |       |
| 3                | CoP 15440  | 11.74      | 12.42 | 12.20 | 12.12        | 12.17 |          |       |       |         |       |       |       |              |       |       |       |
| 4                | CoSe 15453 | 11.72      | 11.71 | 11.59 | 11.67        | 12.20 |          |       |       |         |       |       |       |              |       |       |       |
| 5                | CoSe 15454 | -          | -     | -     | -            | 11.83 |          |       |       |         |       |       |       |              |       |       |       |
| 6                | CoLk 15468 | 12.70      | 12.64 | 11.65 | 12.33        | 12.19 |          |       |       |         |       |       |       |              |       |       |       |
| 7                | CoLk 15469 | 12.65      | 12.86 | 12.44 | 12.65        | 12.26 | <b>2</b> |       |       |         |       |       |       |              |       |       |       |
| <b>Standards</b> |            |            |       |       |              |       |          |       |       |         |       |       |       |              |       |       |       |
| 1                | BO 91      | 12.17      | 12.32 | 12.18 | 12.22        | 11.83 |          |       |       |         |       |       |       |              |       |       |       |
| 2                | CoP 9301   | 12.27      | 12.40 | 11.71 | 12.13        | 12.41 | <b>1</b> |       |       |         |       |       |       |              |       |       |       |
| 3                | CoP 06436  | 12.73      | 12.62 | 12.35 | 12.57        | 11.90 |          |       |       |         |       |       |       |              |       |       |       |
|                  | <b>GM</b>  | 12.39      | 12.40 | 12.02 | 12.27        | 12.09 |          |       |       |         |       |       |       |              |       |       |       |

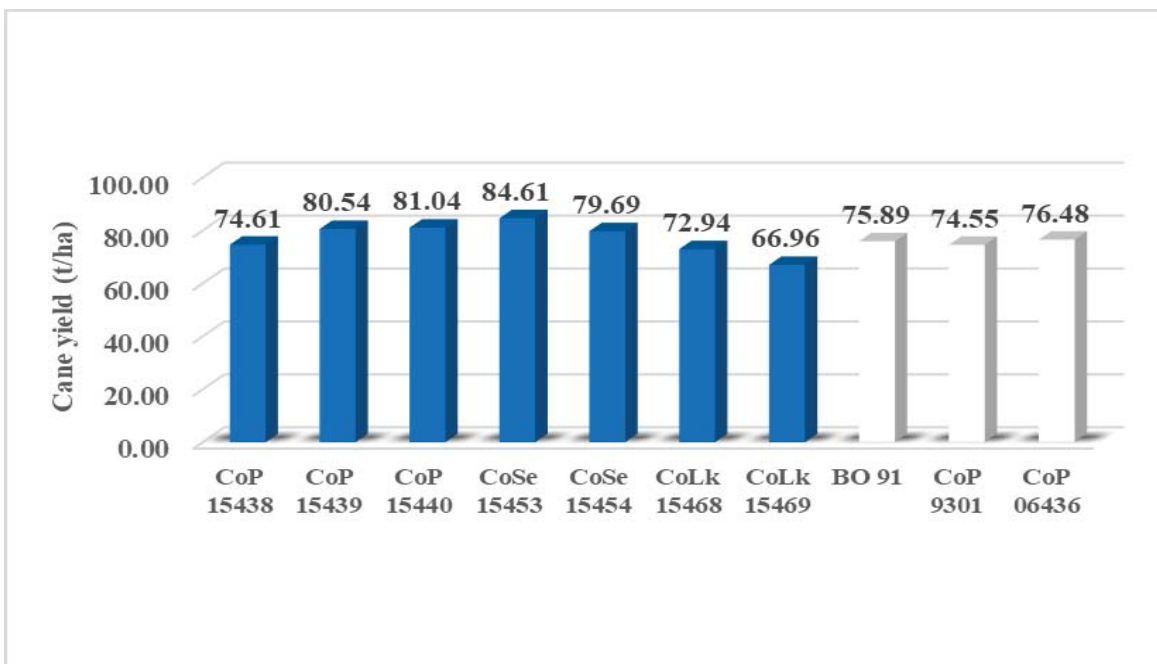
**Table 5.8.4. Sucrose (%) at harvest - Pooled data of two plant and one ratoon crops**

| Sl No.           | Entries    | Seorahi    |       |       | Pusa     |          |       | Motipur |       |       | Bethuadahari |       |       |       |       |       |       |
|------------------|------------|------------|-------|-------|----------|----------|-------|---------|-------|-------|--------------|-------|-------|-------|-------|-------|-------|
|                  |            | IP         | IIP   | R     | Mean     | IP       | IIP   | R       | Mean  | IP    | IIP          | R     | Mean  |       |       |       |       |
| 1                | CoP 15438  | 18.65      | 16.92 | 15.82 | 17.13    | 18.71    | 17.58 | 17.41   | 17.90 | 16.82 | 15.90        | 15.37 | 16.03 | 18.41 | 17.43 | 17.67 | 17.84 |
| 2                | CoP 15439  | 17.74      | 17.34 | 17.46 | 17.51    | 18.97    | 17.69 | 16.41   | 17.69 | 16.48 | 16.21        | 16.40 | 16.36 | 19.20 | 17.54 | 18.04 | 18.26 |
| 3                | CoP 15440  | 19.58      | 18.18 | 17.90 | 18.55    | 19.09    | 17.68 | 17.13   | 17.97 | 16.70 | 15.84        | 15.90 | 16.15 | 18.33 | 17.52 | 17.75 | 17.87 |
| 4                | CoSe 15453 | 19.95      | 19.27 | 17.53 | 18.92    | 18.24    | 17.55 | 17.43   | 17.74 | 15.56 | 16.34        | 17.12 | 16.34 | 19.00 | 17.35 | 17.64 | 18.00 |
| 5                | CoSe 15454 | 16.46      | 17.56 | 16.92 | 16.98    | 17.96    | 17.34 | 16.66   | 17.32 | 16.11 | 16.12        | 16.62 | 16.28 | 18.33 | 17.43 | 17.55 | 17.77 |
| 6                | CoLk 15468 | 17.78      | 18.69 | 18.26 | 18.24    | 19.24    | 17.41 | 16.52   | 17.72 | 17.62 | 15.80        | 17.30 | 16.91 | 18.25 | 17.15 | 17.86 | 17.75 |
| 7                | CoLk 15469 | 17.30      | 19.16 | 17.93 | 18.13    | 18.12    | 17.60 | 16.58   | 17.43 | 16.98 | 16.70        | 16.78 | 16.82 | 18.63 | 17.42 | 17.93 | 17.99 |
| <b>Standards</b> |            |            |       |       |          |          |       |         |       |       |              |       |       |       |       |       |       |
| 1                | BO 91      | 18.63      | 17.23 | 15.39 | 17.08    | 18.24    | 17.17 | 16.63   | 17.35 | 16.32 | 15.01        | 16.29 | 15.87 | 19.03 | 17.16 | 17.38 | 17.86 |
| 2                | CoP 9301   | 18.54      | 19.01 | 18.10 | 18.55    | 19.07    | 18.05 | 17.66   | 18.26 | 17.18 | 16.48        | 16.73 | 16.80 | 19.25 | 17.96 | 18.20 | 18.47 |
| 3                | CoP 06436  | 17.64      | 18.24 | 15.99 | 17.29    | 18.03    | 17.44 | 17.50   | 17.66 | 15.06 | 15.37        | 16.26 | 15.56 | 18.90 | 16.58 | 16.71 | 17.40 |
|                  | <b>GM</b>  | 18.23      | 18.16 | 17.13 | 17.84    | 18.57    | 17.55 | 16.99   | 17.70 | 16.58 | 15.98        | 16.48 | 16.35 | 19.06 | 17.23 | 17.43 | 17.91 |
| Sl No.           | Entries    | Buralikson |       |       | GM (Wt.) | Rank     |       |         |       |       |              |       |       |       |       |       |       |
|                  |            | IP         | IIP   | R     |          |          |       |         |       |       |              |       |       |       |       |       |       |
| 1                | CoP 15438  | 18.46      | 17.55 | 17.10 | 17.70    |          |       |         |       |       |              |       |       |       |       |       |       |
| 2                | CoP 15439  | 18.96      | 18.44 | 18.15 | 18.52    |          |       |         |       |       |              |       |       |       |       |       |       |
| 3                | CoP 15440  | 17.75      | 18.23 | 17.90 | 17.96    |          |       |         |       |       |              |       |       |       |       |       |       |
| 4                | CoSe 15453 | 17.56      | 17.31 | 17.09 | 17.32    |          |       |         |       |       |              |       |       |       |       |       |       |
| 5                | CoSe 15454 | -          | -     | -     | 17.09    |          |       |         |       |       |              |       |       |       |       |       |       |
| 6                | CoLk 15468 | 18.71      | 18.44 | 17.42 | 18.19    | <b>3</b> |       |         |       |       |              |       |       |       |       |       |       |
| 7                | CoLk 15469 | 18.76      | 18.68 | 18.15 | 18.53    | <b>2</b> |       |         |       |       |              |       |       |       |       |       |       |
| <b>Standards</b> |            |            |       |       |          |          |       |         |       |       |              |       |       |       |       |       |       |
| 1                | BO 91      | 18.28      | 18.14 | 17.90 | 18.11    | 17.25    |       |         |       |       |              |       |       |       |       |       |       |
| 2                | CoP 9301   | 18.34      | 18.19 | 17.42 | 17.98    | <b>1</b> |       |         |       |       |              |       |       |       |       |       |       |
| 3                | CoP 06436  | 18.74      | 18.52 | 18.12 | 18.46    |          |       |         |       |       |              |       |       |       |       |       |       |
|                  | <b>GM</b>  | 18.40      | 18.17 | 17.69 | 18.09    | 17.55    |       |         |       |       |              |       |       |       |       |       |       |

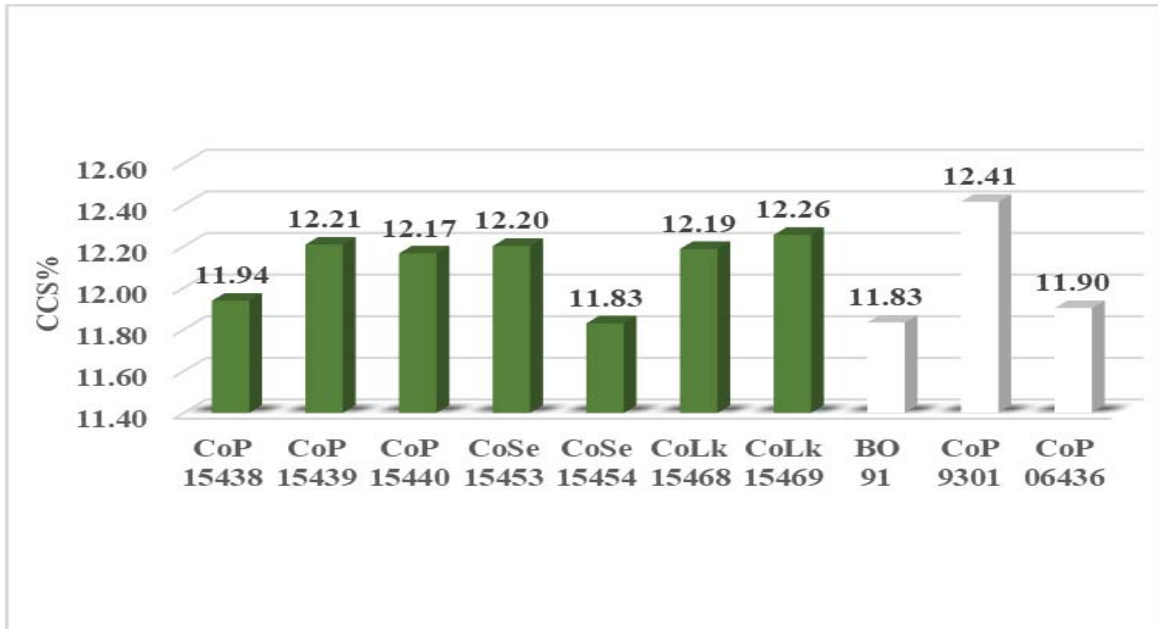
**Fig: 5.8.1. Mean performance of entries in two plant and one ratoon crops – CCS (t/ha)**



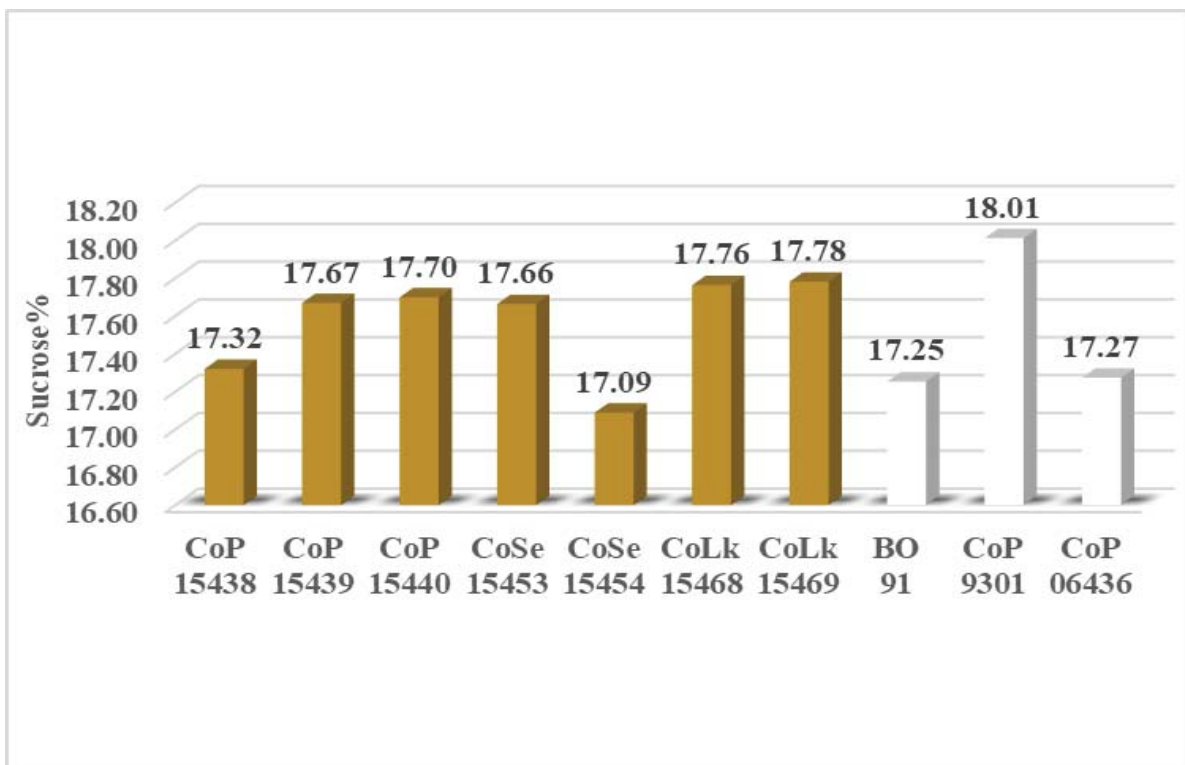
**Fig: 5.8.2. Mean performance of entries in two plant and one ratoon crops- Cane yield at harvest t/ha**



**Fig 5.8.3. Mean performance of entries in two plant and one ratoon crops - CCS% at harvest**



**Fig 5.8.4. Mean performance of entries in two plant and one ratoon crops - Sucrose% at harvest**



### 5.9. ADVANCED VARIETAL TRIAL (MIDLATE) – I PLANT

|                         |  |
|-------------------------|--|
| <b>Centers (5)</b>      | Bethuadahari, Buralikson, Motipur, Pusa and Seorahi          |
| <b>Entries (4)</b>      | CoP 16439, CoLk 16470, CoSe 16452, CoBlIn 16502              |
| <b>Standards (3)</b>    | BO 91, CoP 9301 and CoP 06436                                |
| <b>Design</b>           | RBD  |
| <b>Replications</b>     | Three  |
| <b>Plot size</b>        | Gross : 6 m x 8 rows x 0.90 m<br>Net : 5 m x 6 rows x 0.90 m |
| <b>Seed rate</b>        | 12 buds per meter  |
| <b>Date of planting</b> | February - March, 2020                                       |
| <b>Crop duration</b>    | 12 months  |

**Results of the previous year:** Nine entries and three standards were evaluated in IVT (Midlate) at five locations of North Central and North East zones during 2019-20 for cane yield and juice quality parameters. None of the test entries recorded >10% improvement over the best standard for CCS yield across locations. Test entry CoP 16440 ranked top in the zone with 7.25% improvement over the best standard across locations. For cane yield, none of the entries recorded >10% improvement in the zone. The test entry CoP 16440 ranked top with 6.08% improvement over the best standard across locations. For CCS%, none of the test entries recorded >5% improvement across locations. Standard CoP 9301 ranked top in the zone with 12.55% mean CCS across the locations. The test entry CoSe 16452 ranked second in the zone with 12.53% of mean CCS and recorded 6.05% improvement over the best standard at Seorahi center. For sucrose%, none of the test entries recorded >5% improvement across locations. Standard CoP 9301 ranked top in the zone with 18.30% of mean sucrose. Test entry CoP 16439 ranked second in the zone with 18.26% sucrose. Based on cane yield and juice quality parameters, none of the test entries recorded >10% improvement over best standard for CCS yield and cane yield or >5% improvement for CCS% and sucrose%. Hence, no test entry was identified as qualifying entry in the zone.

**Results of the current year:**

Four test entries and three standards were evaluated in AVT (Midlate) I plant at five locations of North Central and North East zones during 2020-21 for cane yield and juice quality parameters. None of the test entries recorded >10% improvement over the best standard across the zone for CCS t/ha. The test entry CoLk 16470 ranked top in the zone with 10.36 t/ha mean CCS yield and it also recorded 29.04% improvement over the best standard at Pusa center. The standard CoP 06436 ranked second in the zone with 10.05 t/ha mean CCS yield followed by another standard CoP 9301 with a mean value of 10.01 t/ha. None of the test entries recorded >10% improvement over the best standard across the zone for cane yield. The test entry CoLk 16470 ranked top in the zone with 86.91 t/ha mean cane yield and it also recorded 17.58% improvement over the best standard at Pusa center. The standard CoP 06436 ranked second in the zone with 86.52 t/ha mean cane yield. None of the test entries recorded >5% improvement over the best standard across the zone for CCS%. The standard CoP 9301 ranked top in the zone with 12.34% of mean CCS across locations. The entry CoLk 16470 and CoP 16439 ranked second and third in the zone with 12.11% and 12.08% mean CCS% respectively. None of the test entries recorded >5% improvement over best standard for sucrose% in the zone. The standard CoP 9301 ranked top in the zone with 17.89% mean sucrose. The entries CoLk 16470 and CoP 16439 ranked second and third in the zone with 17.44% and 17.43% mean sucrose respectively. On comparing with best standard CoP 06436, none of entries were found to be qualifying as they have not recorded either > 10% improvement in cane yield or 5% improvement in sucrose content.

**The data are presented in table 5.9.1 to 5.9.20.**

**Table 5.9.1. CCS (t/ha) at harvest**

| S. No. | Entries   | Seorahi     | Pusa        | Motipur      | Bethuahari  | Buralikson  | Mean         | Overall rank |
|--------|---|-------------|-------------|--------------|-------------|-------------|--------------|--------------|
| 1      | CoP 16439   | 8.86        | 13.59*      | 9.14         | 8.90        | 6.61        | <b>9.42</b>  |              |
| 2      | CoLk 16470  | 9.91        | 12.31*      | 13.04        | 8.88        | 7.65        | <b>10.36</b> | <b>1</b>     |
| 3      | CoSe 16452  | 10.58*      | 8.77        | 10.99        | 9.20        | 7.76        | <b>9.46</b>  |              |
| 4      | CoBln 16502   | 6.43        | 7.61        | 7.62         | 7.48        | 11.37       | <b>8.10</b>  |              |
|        | Standards   | -           |             |              |             |             |              |              |
| 1      | BO 91   | 8.65        | 8.25        | 12.32        | 8.86        | 9.40        | <b>9.50</b>  |              |
| 2      | CoP 9301  | 8.64        | 8.67        | 13.65        | 8.75        | 10.33       | <b>10.01</b> | <b>3</b>     |
| 3      | CoP 06436   | 9.31        | 9.54        | 13.54        | 9.16        | 8.70        | <b>10.05</b> | <b>2</b>     |
|        | <b>GM</b>   | <b>8.91</b> | <b>9.82</b> | <b>11.47</b> | <b>8.75</b> | <b>8.83</b> | <b>9.56</b>  |              |
|        | SE  | 0.37        | 0.70        | 0.71         | 0.06        | 0.74        |              |              |
|        | CD  | 1.14        | 2.17        | 2.17         | 0.20        | 1.53        |              |              |
|        | CV  | 7.21        | 12.30       | 10.66        | 6.27        | 10.21       |              |              |
|        | <b>Top three qualifying entries at each locations</b> |             |             |              |             |             |              |              |
|        | 1   | CoSe 16452  | CoP 16439   |              |             | CoBln 16502 |              |              |
|        | 2   |             | CoLk 16470  |              |             |             |              |              |
|        | 3   |             |             |              |             |             |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoP 16439 (1), CoLk 16470 (1), CoSe 16452 (1), CoBln 16502 (1)

**Performance across the locations:** The test entry CoLk 16470 ranked top in the zone with 10.36 t/ha mean CCS yield while the standard CoP 06436 ranked second in the zone with 10.05 t/ha mean CCS yield followed by another standard CoP 9301 with a mean value of 10.01 t/ha. None of the test entries recorded >10% improvement over the best standard across the zone for CCS t/ha.



**Table 5.9.2. Cane yield (t/ha) at harvest**

| S. No.  | Entries     | Seorahi      | Pusa         | Moti pur      | Bethu adahari | Buralik son  | Mean         | Overall rank |
|---|-------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|
| 1   | CoP 16439   | 72.24        | 115.63*      | 80.56         | 72.89         | 58.33        | <b>79.93</b> |              |
| 2   | CoLk 16470  | 80.83*       | 103.78       | 114.39        | 74.93         | 60.60        | <b>86.91</b> | <b>1</b>     |
| 3   | CoSe 16452  | 84.98*       | 77.27        | 95.13         | 75.85         | 66.50        | <b>79.95</b> |              |
| 4   | CoBln 16502 | 56.66        | 66.80        | 71.22         | 66.02         | 95.43        | <b>71.23</b> |              |
| Standards -   |             |              |              |               |               |              |              |              |
| 1   | BO 91       | 67.93        | 71.55        | 107.07        | 74.53         | 74.83        | <b>79.18</b> |              |
| 2   | CoP 9301    | 64.62        | 74.42        | 115.25        | 70.70         | 86.50        | <b>82.30</b> | <b>3</b>     |
| 3   | CoP 06436   | 73.95        | 88.26        | 132.67        | 79.31         | 58.43        | <b>86.52</b> | <b>2</b>     |
|   | <b>GM</b>   | <b>71.60</b> | <b>85.39</b> | <b>102.33</b> | <b>73.46</b>  | <b>71.52</b> | <b>80.86</b> |              |
|   | SE          | 0.84         | 6.10         | 4.93          | 0.63          | 4.64         |              |              |
|   | CD          | 2.58         | 19.01        | 15.17         | 1.95          | 9.64         |              |              |
|   | CV          | 5.46         | 12.46        | 8.34          | 5.49          | 7.94         |              |              |
| <b>Top three qualifying entries at each locations</b> |             |              |              |               |               |              |              |              |
|   | 1           | CoLk 16470   | CoP 16439    |               |               | CoBln 16502  |              |              |
|   | 2           |              | CoLk 16470   |               |               |              |              |              |
|   | 3           |              |              |               |               |              |              |              |

\* Significantly superior the over best standard.

**No. of locations where an entry recorded >10% improvement:** CoP 16439 (1), CoLk 16470 (2), CoBln 16502

**Performance across the locations:** The test entry CoLk 16470 ranked top in the zone with 86.91 t/ha mean cane yield and it also recorded 17.58% improvement over the best standard at Pusa center. The standard CoP 06436 ranked second in the zone with 86.52 t/ha mean cane yield followed by another standard CoP 9301 with a mean value of 82.30 t/ha. None of the test entries recorded >10% improvement over the best standard across the zone for cane yield.

**Table 5.9.3. CCS (%) at harvest**

| S. No. | Entries   | Seorahi      | Pusa         | Moti pur     | Bethua dahari | Buralik son  | Mean         | Overall rank |
|--------|---|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| 1      | CoP 16439   | 12.27        | 11.76        | 11.37        | 12.21         | 12.78        | <b>12.08</b> | <b>3</b>     |
| 2      | CoLk 16470  | 12.66        | 11.85        | 11.40        | 11.86         | 12.76        | <b>12.11</b> | <b>2</b>     |
| 3      | CoSe 16452  | 12.45        | 11.32        | 11.53        | 12.13         | 12.77        | <b>12.04</b> |              |
| 4      | CoBln 16502   | 11.35        | 11.42        | 10.72        | 11.34         | 12.29        | <b>11.42</b> |              |
|        | Standards   | -            |              |              |               |              |              |              |
| 1      | BO 91   | 12.72        | 11.56        | 11.49        | 11.88         | 12.19        | <b>11.97</b> |              |
| 2      | CoP 9301  | 13.37        | 11.66        | 11.86        | 12.38         | 12.45        | <b>12.34</b> | <b>1</b>     |
| 3      | CoP 06436   | 12.59        | 11.31        | 10.17        | 11.55         | 12.73        | <b>11.67</b> |              |
|        | <b>GM</b>   | <b>12.49</b> | <b>11.55</b> | <b>11.22</b> | <b>11.91</b>  | <b>12.57</b> | <b>11.95</b> |              |
|        | SE  | 0.07         | 0.18         | 0.40         | 0.04          | 0.20         |              |              |
|        | CD  | 0.22         | 0.57         | 2.18         | 0.12          | 0.41         |              |              |
|        | CV  | 1.01         | 2.70         | 6.22         | 2.89          | 1.94         |              |              |
|        | <b>Top three qualifying entries at each locations</b> |              |              |              |               |              |              |              |
|        | 1   |              |              |              |               |              |              |              |
|        | 2   |              |              |              |               |              |              |              |
|        | 3   |              |              |              |               |              |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >5% improvement:**

**Performance across the locations:** None of the test entries recorded >5% improvement over the best standard across the zone for CCS%. The standard CoP 9301 ranked top in the zone with 12.34% of mean CCS% across locations. The entry CoLk 16470 and CoP 16439 ranked second and third in the zone with 12.11% and 12.08% mean CCS% respectively.

**Table 5.9.4. Sucrose (%) at harvest**

| S. No.  | Entries     | Seorahi      | Pusa         | Moti pur     | Bethua dahari | Buralik son  | Mean         | Overall rank |
|---|-------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|
| 1   | CoP 16439   | 17.86        | 17.10        | 16.12        | 17.61         | 18.48        | <b>17.43</b> | <b>3</b>     |
| 2   | CoLk 16470  | 18.40        | 17.16        | 16.04        | 17.09         | 18.52        | <b>17.44</b> | <b>2</b>     |
| 3   | CoSe 16452  | 18.07        | 16.43        | 16.22        | 17.45         | 18.34        | <b>17.30</b> |              |
| 4   | CoBln 16502 | 16.57        | 16.53        | 14.97        | 16.41         | 18.06        | <b>16.51</b> |              |
| Standards -   |             |              |              |              |               |              |              |              |
| 1   | BO 91       | 18.53        | 16.78        | 16.20        | 17.12         | 17.98        | <b>17.32</b> |              |
| 2   | CoP 9301    | 19.46        | 16.93        | 17.06        | 17.71         | 18.28        | <b>17.89</b> | <b>1</b>     |
| 3   | CoP 06436   | 18.38        | 16.41        | 15.54        | 16.71         | 18.53        | <b>17.11</b> |              |
|   | <b>GM</b>   | <b>18.18</b> | <b>16.76</b> | <b>16.02</b> | <b>17.16</b>  | <b>18.31</b> | <b>17.29</b> |              |
|   | SE          | 0.10         | 0.25         | 0.47         | 0.05          | 0.20         |              |              |
|   | CD          | 0.31         | 0.78         | 1.46         | 0.18          | 0.41         |              |              |
|   | CV          | 0.97         | 2.56         | 5.17         | 2.61          | 1.32         |              |              |
| <b>Top three qualifying entries at each locations</b> |             |              |              |              |               |              |              |              |
|   | 1           |              |              |              |               |              |              |              |
|   | 2           |              |              |              |               |              |              |              |
|   | 3           |              |              |              |               |              |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >5% improvement: Nil**

**Performance across the locations:** None of the test entries recorded >5% improvement over best standard for sucrose% in the zone. The standard CoP 9301 ranked top in the zone with 17.89% mean sucrose. The entries CoLk 16470 and CoP 16439 ranked second and third in the zone with 17.44% and 17.43% mean sucrose respectively.

**Table 5.9.5. Brix (%) at harvest**

| S. No.      | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|-------------|-------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1           | CoP 16439   | 20.49        | 19.47        | 17.49        | 19.83         | 20.93        | <b>19.64</b> |
| 2           | CoLk 16470  | 21.08        | 19.47        | 17.07        | 19.21         | 21.13        | <b>19.59</b> |
| 3           | CoSe 16452  | 20.63        | 18.73        | 17.27        | 19.54         | 20.47        | <b>19.33</b> |
| 4           | CoBlN 16502 | 19.16        | 18.73        | 15.70        | 18.61         | 21.13        | <b>18.67</b> |
| Standards - |             |              |              |              |               |              |              |
| 1           | BO 91       | 21.29        | 19.13        | 17.34        | 19.22         | 21.20        | <b>19.64</b> |
| 2           | CoP 9301    | 22.33        | 19.33        | 19.10        | 19.60         | 21.33        | <b>20.34</b> |
| 3           | CoP 06436   | 21.19        | 18.70        | 17.04        | 18.92         | 21.27        | <b>19.42</b> |
|             | <b>GM</b>   | <b>20.88</b> | <b>19.08</b> | <b>17.29</b> | <b>19.28</b>  | <b>21.07</b> | <b>19.52</b> |
|             | SE          | 0.14         | 0.24         | 0.37         | 0.09          | 0.12         |              |
|             | CD          | 0.44         | 0.76         | 1.13         | 0.28          | 0.25         |              |
|             | CV          | 1.18         | 2.18         | 3.71         | 2.14          | 0.70         |              |

**Table 5.9.6. Purity (%) at harvest**

| S. No.      | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|-------------|-------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1           | CoP 16439   | 87.14        | 57.60        | 92.20        | 88.80         | 88.29        | <b>82.81</b> |
| 2           | CoLk 16470  | 87.27        | 88.13        | 93.97        | 88.96         | 87.64        | <b>89.19</b> |
| 3           | CoSe 16452  | 87.62        | 87.70        | 93.92        | 89.30         | 89.61        | <b>89.63</b> |
| 4           | CoBlN 16502 | 86.51        | 88.23        | 95.17        | 88.18         | 85.45        | <b>88.71</b> |
| Standards - |             |              |              |              |               |              |              |
| 1           | BO 91       | 87.03        | 87.67        | 93.43        | 89.07         | 84.81        | <b>88.40</b> |
| 2           | CoP 9301    | 87.18        | 87.57        | 89.40        | 90.36         | 85.68        | <b>88.04</b> |
| 3           | CoP 06436   | 86.74        | 87.77        | 91.20        | 88.32         | 87.14        | <b>88.23</b> |
|             | <b>GM</b>   | <b>87.07</b> | <b>83.52</b> | <b>92.76</b> | <b>89.25</b>  | <b>86.95</b> | <b>87.91</b> |
|             | SE          | 0.33         | 0.31         | 1.73         | 0.26          | 0.98         |              |
|             | CD          | 1.01         | 0.98         | 5.32         | 0.81          | 2.05         |              |
|             | CV          | 0.65         | 0.61         | 3.23         | 0.85          | 1.39         |              |

**Table 5.9.7. Pol (%) cane at harvest**

| S. No.    | Entries     | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|-----------|-------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1         | CoP 16439   |         | 13.26        | 12.57        |               |             | <b>12.92</b> |
| 2         | CoLk 16470  |         | 13.26        | 12.56        |               |             | <b>12.91</b> |
| 3         | CoSe 16452  |         | 12.64        | 12.65        |               |             | <b>12.65</b> |
| 4         | CoBlN 16502 |         | 12.68        | 11.73        |               |             | <b>12.21</b> |
| Standards |             |         |              |              |               |             |              |
| 1         | BO 91       |         | 12.83        | 12.64        |               |             | <b>12.74</b> |
| 2         | CoP 9301    |         | 13.14        | 13.21        |               |             | <b>13.18</b> |
| 3         | CoP 06436   |         | 12.66        | 11.35        |               |             | <b>12.01</b> |
|           | <b>GM</b>   |         | <b>12.92</b> | <b>12.39</b> |               |             | <b>12.66</b> |
|           | SE          |         | 0.21         | 0.37         |               |             |              |
|           | CD          |         | 0.69         | 1.15         |               |             |              |
|           | CV          |         | 2.74         | 5.22         |               |             |              |

**Table 5.9.8. Extraction (%) at harvest**

| S. No.    | Entries     | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|-----------|-------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1         | CoP 16439   |         | 62.10        | 55.67        |               |             | <b>58.89</b> |
| 2         | CoLk 16470  |         | 60.15        | 53.65        |               |             | <b>56.90</b> |
| 3         | CoSe 16452  |         | 59.60        | 55.01        |               |             | <b>57.31</b> |
| 4         | CoBlN 16502 |         | 57.15        | 57.62        |               |             | <b>57.39</b> |
| Standards |             |         |              |              |               |             |              |
| 1         | BO 91       |         | 60.10        | 53.17        |               |             | <b>56.64</b> |
| 2         | CoP 9301    |         | 61.20        | 59.23        |               |             | <b>60.22</b> |
| 3         | CoP 06436   |         | 59.70        | 57.40        |               |             | <b>58.55</b> |
|           | <b>GM</b>   |         | <b>60.00</b> | <b>55.96</b> |               |             | <b>57.98</b> |
|           | SE          |         | 1.89         | 0.92         |               |             |              |
|           | CD          |         | 6.31         | 2.83         |               |             |              |
|           | CV          |         | 5.45         | 4.85         |               |             |              |

**Table 5.9.9. Fibre (%) at harvest**

| S. No. | Entries     | Seorahi | Pusa         | Motipur      | Bethua dahari | Buralik son | Mean         |
|--------|-------------|---------|--------------|--------------|---------------|-------------|--------------|
| 1      | CoP 16439   |         | 12.30        | 12.02        |               |             | <b>12.16</b> |
| 2      | CoLk 16470  |         | 12.70        | 11.67        |               |             | <b>12.19</b> |
| 3      | CoSe 16452  |         | 13.10        | 12.01        |               |             | <b>12.56</b> |
| 4      | CoBln 16502 |         | 13.25        | 11.62        |               |             | <b>12.44</b> |
|        | Standards   |         |              |              |               |             |              |
| 1      | BO 91       |         | 12.80        | 12.00        |               |             | <b>12.40</b> |
| 2      | CoP 9301    |         | 12.40        | 12.56        |               |             | <b>12.48</b> |
| 3      | CoP 06436   |         | 12.85        | 11.98        |               |             | <b>12.42</b> |
|        | <b>GM</b>   |         | <b>12.77</b> | <b>11.98</b> |               |             | <b>12.38</b> |
|        | SE          |         | 0.30         | 0.34         |               |             |              |
|        | CD          |         | 1.00         | 1.06         |               |             |              |
|        | CV          |         | 4.05         | 4.98         |               |             |              |

**Table 5.9.10. Number of Millable Canes ('000/ha) at harvest**

| S. No. | Entries     | Seorahi      | Pusa          | Motipur      | Bethua dahari | Buralik son  | Mean          |
|--------|-------------|--------------|---------------|--------------|---------------|--------------|---------------|
| 1      | CoP 16439   | 100.00       | 118.15        | 76.02        | 121.49        | 68.17        | <b>96.77</b>  |
| 2      | CoLk 16470  | 106.00       | 111.85        | 110.73       | 126.86        | 70.50        | <b>105.19</b> |
| 3      | CoSe 16452  | 113.00       | 98.75         | 97.75        | 128.47        | 79.37        | <b>103.47</b> |
| 4      | CoBln 16502 | 64.00        | 91.30         | 67.67        | 111.20        | 83.73        | <b>83.58</b>  |
|        | Standards   | -            |               |              |               |              |               |
| 1      | BO 91       | 95.00        | 102.10        | 106.38       | 134.16        | 76.47        | <b>102.82</b> |
| 2      | CoP 9301    | 95.00        | 103.15        | 97.95        | 119.15        | 79.00        | <b>98.85</b>  |
| 3      | CoP 06436   | 102.00       | 105.10        | 113.71       | 135.44        | 72.33        | <b>105.72</b> |
|        | <b>GM</b>   | <b>96.43</b> | <b>104.34</b> | <b>95.74</b> | <b>125.25</b> | <b>75.65</b> | <b>99.48</b>  |
|        | SE          | 1.11         | 5.00          | 2.51         | 0.95          | 3.55         |               |
|        | CD          | 3.43         | 15.57         | 7.72         | 2.93          | 7.38         |               |
|        | CV          | 5.43         | 8.30          | 8.40         | 6.48          | 5.75         |               |

**Table 5.9.11. Stalk Length (cm) at harvest**

| S. No. | Entries     | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralik son   | Mean          |
|--------|-------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1      | CoP 16439   | 189.00        | 315.00        | 248.33        | 257.33        | 191.50        | <b>240.23</b> |
| 2      | CoLk 16470  | 181.00        | 305.00        | 270.00        | 258.00        | 195.50        | <b>241.90</b> |
| 3      | CoSe 16452  | 205.00        | 270.00        | 253.33        | 268.67        | 198.83        | <b>239.17</b> |
| 4      | CoBlN 16502 | 159.00        | 281.00        | 305.00        | 247.33        | 273.67        | <b>253.20</b> |
|        | Standards   | -             |               |               |               |               |               |
| 1      | BO 91       | 181.00        | 251.67        | 268.33        | 250.67        | 236.50        | <b>237.63</b> |
| 2      | CoP 9301    | 170.00        | 265.00        | 270.00        | 232.67        | 247.83        | <b>237.10</b> |
| 3      | CoP 06436   | 199.00        | 287.00        | 325.00        | 271.33        | 211.17        | <b>258.70</b> |
|        | <b>GM</b>   | <b>183.43</b> | <b>282.10</b> | <b>277.14</b> | <b>255.14</b> | <b>222.14</b> | <b>243.99</b> |
|        | SE          | 4.91          | 16.05         | 4.86          | 3.63          | 7.86          |               |
|        | CD          | 15.12         | 50.57         | 14.97         | 11.20         | 16.36         |               |
|        | CV          | 4.64          | 9.85          | 5.04          | 5.14          | 4.34          |               |

**Table 5.9.12. Stalk Diameter (cm) at harvest**

| S. No. | Entries     | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoP 16439   | 2.10        | 2.48        | 2.20        | 2.22          | 2.33        | <b>2.27</b> |
| 2      | CoLk 16470  | 2.20        | 2.30        | 2.13        | 2.21          | 2.37        | <b>2.24</b> |
| 3      | CoSe 16452  | 2.10        | 2.36        | 2.17        | 2.29          | 2.43        | <b>2.27</b> |
| 4      | CoBlN 16502 | 1.80        | 2.42        | 2.10        | 2.32          | 2.73        | <b>2.27</b> |
|        | Standards   | -           |             |             |               |             |             |
| 1      | BO 91       | 2.00        | 2.20        | 1.67        | 2.17          | 2.40        | <b>2.09</b> |
| 2      | CoP 9301    | 1.90        | 2.24        | 2.23        | 2.07          | 2.63        | <b>2.21</b> |
| 3      | CoP 06436   | 2.20        | 2.46        | 2.00        | 2.33          | 2.27        | <b>2.25</b> |
|        | <b>GM</b>   | <b>2.04</b> | <b>2.35</b> | <b>2.07</b> | <b>2.23</b>   | <b>2.45</b> | <b>2.23</b> |
|        | SE          | 0.04        | 0.12        | 0.05        | 0.03          | 0.08        |             |
|        | CD          | 0.14        | 0.38        | 0.15        | 0.10          | 0.17        |             |
|        | CV          | 3.76        | 8.90        | 4.23        | 4.37          | 4.06        |             |

**Table 5.9.13. Single Cane Weight (kg) at harvest**

| S. No. | Entries     | Seorahi     | Pusa        | Motipur     | Bethua dahari | Buralik son | Mean        |
|--------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|
| 1      | CoP 16439   | 0.72        | 0.98        | 0.94        | 0.69          | 0.86        | <b>0.84</b> |
| 2      | CoLk 16470  | 0.77        | 0.93        | 0.91        | 0.66          | 0.87        | <b>0.83</b> |
| 3      | CoSe 16452  | 0.73        | 0.78        | 0.85        | 0.71          | 0.94        | <b>0.80</b> |
| 4      | CoBln 16502 | 0.43        | 0.73        | 0.93        | 0.71          | 1.16        | <b>0.79</b> |
|        | Standards   | -           |             |             |               |             |             |
| 1      | BO 91       | 0.72        | 0.70        | 0.73        | 0.65          | 0.99        | <b>0.76</b> |
| 2      | CoP 9301    | 0.67        | 0.72        | 1.06        | 0.58          | 1.10        | <b>0.83</b> |
| 3      | CoP 06436   | 0.73        | 0.80        | 1.05        | 0.73          | 0.83        | <b>0.83</b> |
|        | <b>GM</b>   | <b>0.68</b> | <b>0.81</b> | <b>0.92</b> | <b>0.67</b>   | <b>0.96</b> | <b>0.81</b> |
|        | SE          | 0.01        | 0.04        | 0.04        | 0.01          | 0.04        |             |
|        | CD          | 0.02        | 0.13        | 0.11        | 0.02          | 0.08        |             |
|        | CV          | 1.48        | 8.78        | 7.80        | 7.19          | 5.03        |             |

**Table 5.9.14. CCS (%) at 300 days**

| S. No. | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|-------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16439   | 11.36        | 11.33        | 10.59        | 11.28         | 10.41        | <b>10.99</b> |
| 2      | CoLk 16470  | 10.84        | 11.16        | 10.48        | 11.12         | 11.06        | <b>10.93</b> |
| 3      | CoSe 16452  | 11.62        | 10.93        | 10.92        | 11.27         | 10.60        | <b>11.07</b> |
| 4      | CoBln 16502 | 10.30        | 9.86         | 9.49         | 10.53         | 10.03        | <b>10.04</b> |
|        | Standards   | -            |              |              |               |              |              |
| 1      | BO 91       | 10.70        | 10.86        | 10.33        | 11.11         | 10.35        | <b>10.67</b> |
| 2      | CoP 9301    | 11.71        | 11.67        | 11.18        | 11.72         | 10.68        | <b>11.39</b> |
| 3      | CoP 06436   | 10.68        | 10.79        | 9.69         | 10.62         | 10.36        | <b>10.43</b> |
|        | <b>GM</b>   | <b>11.03</b> | <b>10.94</b> | <b>10.38</b> | <b>11.09</b>  | <b>10.50</b> | <b>10.79</b> |
|        | SE          | 0.19         | 0.11         | 0.32         | 0.05          | 0.28         |              |
|        | CD          | 0.57         | 0.33         | 0.98         | 0.15          | 0.59         |              |
|        | CV          | 2.91         | 8.70         | 5.29         | 3.45          | 3.33         |              |



**Table 5.9.15. Sucrose (%) at 300 days**

| S. No. | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|-------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16439   | 16.41        | 16.54        | 15.23        | 16.52         | 15.71        | <b>16.08</b> |
| 2      | CoLk 16470  | 15.72        | 16.28        | 14.99        | 16.28         | 16.27        | <b>15.91</b> |
| 3      | CoSe 16452  | 16.79        | 15.95        | 15.64        | 16.50         | 15.95        | <b>16.17</b> |
| 4      | CoBln 16502 | 14.97        | 14.44        | 13.72        | 15.46         | 15.57        | <b>14.83</b> |
|        | Standards   | -            |              |              |               |              |              |
| 1      | BO 91       | 15.52        | 15.83        | 14.76        | 16.27         | 15.71        | <b>15.62</b> |
| 2      | CoP 9301    | 16.93        | 17.00        | 15.95        | 17.01         | 15.95        | <b>16.57</b> |
| 3      | CoP 06436   | 15.46        | 15.76        | 14.00        | 15.65         | 15.81        | <b>15.34</b> |
|        | <b>GM</b>   | <b>15.97</b> | <b>15.97</b> | <b>14.90</b> | <b>16.24</b>  | <b>15.85</b> | <b>15.79</b> |
|        | SE          | 0.25         | 0.14         | 0.40         | 0.06          | 0.30         |              |
|        | CD          | 0.74         | 0.44         | 1.23         | 0.19          | 0.63         |              |
|        | CV          | 2.71         | 1.53         | 4.65         | 3.07          | 2.32         |              |

**Table 5.9.16. Brix (%) at 300 days**

| S. No. | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|-------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16439   | 16.75        | 19.10        | 17.04        | 19.18         | 19.33        | <b>18.28</b> |
| 2      | CoLk 16470  | 16.22        | 18.77        | 16.57        | 18.91         | 19.07        | <b>17.91</b> |
| 3      | CoSe 16452  | 16.62        | 18.40        | 17.34        | 19.15         | 19.53        | <b>18.21</b> |
| 4      | CoBln 16502 | 14.98        | 16.77        | 15.52        | 18.04         | 20.13        | <b>17.09</b> |
|        | Standards   | -            |              |              |               |              |              |
| 1      | BO 91       | 15.64        | 18.20        | 16.30        | 18.89         | 19.53        | <b>17.71</b> |
| 2      | CoP 9301    | 17.14        | 19.53        | 17.55        | 19.40         | 19.27        | <b>18.58</b> |
| 3      | CoP 06436   | 15.95        | 18.20        | 15.85        | 18.40         | 19.87        | <b>17.65</b> |
|        | <b>GM</b>   | <b>16.19</b> | <b>18.42</b> | <b>16.60</b> | <b>18.85</b>  | <b>19.53</b> | <b>17.92</b> |
|        | SE          | 0.24         | 0.14         | 0.41         | 0.08          | 0.14         |              |
|        | CD          | 0.74         | 0.42         | 1.26         | 0.24          | 0.28         |              |
|        | CV          | 2.30         | 1.27         | 4.25         | 2.41          | 0.85         |              |

**Table 5.9.17. Purity (%) at 300 days**

| S. No. | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|-------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16439   | 88.60        | 86.60        | 89.36        | 86.13         | 81.26        | <b>86.39</b> |
| 2      | CoLk 16470  | 87.95        | 86.70        | 90.53        | 86.09         | 85.34        | <b>87.32</b> |
| 3      | CoSe 16452  | 88.54        | 86.70        | 90.22        | 86.16         | 81.66        | <b>86.66</b> |
| 4      | CoBln 16502 | 87.35        | 86.13        | 88.43        | 85.70         | 77.33        | <b>84.99</b> |
|        | Standards   | -            |              |              |               |              |              |
| 1      | BO 91       | 87.88        | 86.97        | 90.53        | 86.13         | 80.42        | <b>86.39</b> |
| 2      | CoP 9301    | 88.45        | 87.03        | 90.91        | 87.68         | 82.78        | <b>87.37</b> |
| 3      | CoP 06436   | 88.15        | 86.57        | 88.35        | 85.05         | 79.59        | <b>85.54</b> |
|        | <b>GM</b>   | <b>88.13</b> | <b>86.67</b> | <b>89.76</b> | <b>86.13</b>  | <b>81.20</b> | <b>86.38</b> |
|        | SE          | 0.29         | 0.28         | 1.33         | 0.22          | 1.28         |              |
|        | CD          | 0.88         | 0.89         | 4.11         | 0.69          | 2.67         |              |
|        | CV          | 0.56         | 0.57         | 2.57         | 0.92          | 1.94         |              |

**Table 5.9.18. Number of Shoots ('000/ha) at 240 days**

| S. No. | Entries     | Seorahi | Pusa          | Motipur       | Bethua dahari | Buralik son  | Mean          |
|--------|-------------|---------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoP 16439   |         | 151.20        | 94.25         | 125.84        | 69.00        | <b>110.07</b> |
| 2      | CoLk 16470  |         | 146.15        | 123.81        | 131.68        | 71.67        | <b>118.33</b> |
| 3      | CoSe 16452  |         | 135.10        | 102.48        | 132.38        | 80.80        | <b>112.69</b> |
| 4      | CoBln 16502 |         | 126.70        | 77.46         | 116.65        | 87.77        | <b>102.15</b> |
|        | Standards   |         |               |               |               |              |               |
| 1      | BO 91       |         | 135.20        | 127.93        | 139.38        | 78.67        | <b>120.30</b> |
| 2      | CoP 9301    |         | 131.90        | 116.24        | 124.00        | 80.73        | <b>113.22</b> |
| 3      | CoP 06436   |         | 137.78        | 111.24        | 139.66        | 74.43        | <b>115.78</b> |
|        | <b>GM</b>   |         | <b>137.72</b> | <b>107.63</b> | <b>129.94</b> | <b>77.58</b> | <b>113.22</b> |
|        | SE          |         | 8.07          | 4.00          | 1.15          | 3.83         |               |
|        | CD          |         | 25.44         | 12.35         | 3.55          | 7.97         |               |
|        | CV          |         | 10.15         | 9.36          | 6.12          | 6.05         |               |

**Table 5.9.19. Number of Tillers ('000/ha) at 120 days**

| S. No. | Entries     | Seorahi       | Pusa          | Motipur       | Bethua dahari | Buralik son  | Mean          |
|--------|-------------|---------------|---------------|---------------|---------------|--------------|---------------|
| 1      | CoP 16439   | 136.00        | 113.03        | 95.58         | 122.44        | 72.50        | <b>107.91</b> |
| 2      | CoLk 16470  | 139.00        | 109.65        | 137.30        | 126.86        | 74.07        | <b>117.38</b> |
| 3      | CoSe 16452  | 152.00        | 103.35        | 107.43        | 127.29        | 83.73        | <b>114.76</b> |
| 4      | CoBln 16502 | 96.00         | 98.10         | 92.39         | 111.82        | 90.73        | <b>97.81</b>  |
|        | Standards   | -             |               |               |               |              |               |
| 1      | BO 91       | 134.00        | 105.70        | 146.57        | 135.24        | 82.07        | <b>120.72</b> |
| 2      | CoP 9301    | 132.00        | 102.85        | 129.47        | 119.79        | 83.30        | <b>113.48</b> |
| 3      | CoP 06436   | 138.00        | 108.90        | 137.30        | 136.04        | 77.07        | <b>119.46</b> |
|        | <b>GM</b>   | <b>132.43</b> | <b>105.94</b> | <b>120.86</b> | <b>125.64</b> | <b>80.50</b> | <b>113.07</b> |
|        | SE          | 1.91          | 5.14          | 3.95          | 1.35          | 3.80         |               |
|        | CD          | 5.90          | 16.20         | 12.17         | 4.18          | 7.90         |               |
|        | CV          | 6.79          | 8.40          | 10.66         | 6.50          | 5.78         |               |

**Table 5.9.20. Germination (%) at 45 days**

| S. No. | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Buralik son  | Mean         |
|--------|-------------|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoP 16439   | 42.96        | 42.70        | 21.30        | 34.44         | 38.67        | <b>36.01</b> |
| 2      | CoLk 16470  | 41.85        | 40.53        | 37.20        | 34.39         | 38.00        | <b>38.39</b> |
| 3      | CoSe 16452  | 48.23        | 36.72        | 25.53        | 35.45         | 41.00        | <b>37.39</b> |
| 4      | CoBln 16502 | 38.60        | 30.45        | 24.37        | 32.60         | 44.33        | <b>34.07</b> |
|        | Standards   | -            |              |              |               |              |              |
| 1      | BO 91       | 41.57        | 44.10        | 38.33        | 38.26         | 42.00        | <b>40.85</b> |
| 2      | CoP 9301    | 40.27        | 41.90        | 40.33        | 38.69         | 42.00        | <b>40.64</b> |
| 3      | CoP 06436   | 42.68        | 45.70        | 47.37        | 41.44         | 39.66        | <b>43.37</b> |
|        | <b>GM</b>   | <b>42.31</b> | <b>40.30</b> | <b>33.49</b> | <b>36.47</b>  | <b>40.81</b> | <b>38.67</b> |
|        | SE          | 0.51         | 2.54         | 1.87         | 0.60          | 2.82         |              |
|        | CD          | 1.57         | 7.91         | 5.77         | 1.86          | 5.86         |              |
|        | CV          | 7.56         | 10.92        | 6.68         | 8.29          | 8.46         |              |

**Table 5.9.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| <b>Entry / Locations</b>              | <b>Seorahi</b> | <b>Pusa</b> | <b>Motipur</b> | <b>Bethuadhari</b> | <b>Buralikson*</b> |
|---------------------------------------|----------------|-------------|----------------|--------------------|--------------------|
| CoP16439                              | Average        | Very Good   | Very Good      | Good               | Average            |
| CoLk 16470                            | Good           | Very Good   | Excellent      | Very good          | good               |
| CoSe16452                             | Good           | Good        | Good           | Good               | good               |
| CoBln16502                            | Poor           | Good        | Average        | Good               | good               |
| <b>Standards</b>                      |                |             |                |                    |                    |
| BO 91                                 | Good           | Good        | Good           | Good               | Average            |
| CoP 9301                              | Good           | Good        | Good           | Good               | Average            |
| CoP 06436                             | Very good      | Very Good   | Very Good      | Very good          | Good               |
| Overall Performance of the Experiment | Good           | Very Good   | Very Good      | Very good          | Good               |

#### 5.10. INITIAL VARIETAL TRIAL (MIDLATE)

|                         |   |
|-------------------------|---|
| <b>Centers (4)</b>      | Bethuadahari, Motipur, Pusa and Seorahi   |
| <b>Entries (6)</b>      | <ol style="list-style-type: none"> <li>1. CoSe 16455 (Co 1158 GC)</li> <li>2. CoSe 16456 (Co 88039 GC)</li> <li>3. CoP 17444 (CoSe 95422 GC)</li> <li>4. CoP 17446 (CoSe 92423 GC)</li> <li>5. CoSe 17452 (CoSe 92423 GC)</li> <li>6. CoBln 17502 (CoS 8436 x Co 1148)</li> </ol> |
| <b>Standards (3)</b>    | BO 91, CoP 9301 and CoP 06436   |
| <b>Design</b>           | RBD   |
| <b>Replications</b>     | Three   |
| <b>Plot size</b>        | Gross : 6 m x 6 rows x 0.90 m<br>Net : 5 m x 4 rows x 0.90 m  |
| <b>Seed rate</b>        | 12 buds per meter   |
| <b>Date of planting</b> | February - March, 2020  |
| <b>Crop duration</b>    | 12 months   |

#### Results of the previous year:

The test entries CoSe 16455, CoSe 16456, CoP 17444, CoP 17446, CoSe 17452 and CoBln 17502 along with standards BO 91, CoP 9301 and CoP 06436 were under multiplication during 2019-2020.

#### Results of the current year:

The test entries CoSe 16455, CoSe 16456, CoP 17444, CoP 17446, CoSe 17452 and CoBln 17502 along with standards BO 91, CoP 9301 and CoP 06436 were evaluated in IVT (Midlate) at four centers during 2020-2021. None of the test entries recorded >10% improvement over the best standard for CCS yield across locations. The test entry CoSe 16456 ranked top in the zone with 4.06% improvement over the best standard across locations. The standards CoP 9301 and CoP 06436 ranked second and third with 10.52 t/ha and 10.43 t/ha mean CCS yield. None of the test entries recorded >10% improvement over the best standard for cane yield across locations. The test entry CoSe 16456 ranked top with 92.18 t/ha cane yield in the zone. The standards CoP 06436 and CoP 9301 ranked second and third with 90.36 and 86.23 mean cane yield t/ha. None of the test entries recorded >5% improvement over the best standard for CCS% across locations. The standard CoP 9301 ranked top in the zone with 12.44% mean CCS% across the locations. The test entry CoSe 16456 (11.96 %) ranked second in the zone followed by another test entry CoP 17444 ( 11.91 %) for mean CCS%. None of the test entries recorded >5% improvement over the best standard for sucrose% across locations. Standard CoP 9301 ranked top in the zone with 18.10% mean sucrose. The test entry CoSe 16456 (17.31%) ranked second in the zone followed by CoP 17444 (17.25%) mean sucrose. Compared to the best standard CoP 9301, none of entries was found to be qualifying as they have not recorded either > 10% improvement in cane yield or 5% improvement in sucrose content. **The data are presented in tables 5.10.1 to 5.10.20.**

**Table 5.10.1. CCS (t/ha) at harvest**

| S. No. | Entries   | Seorahi     | Pusa         | Moti pur     | Bethuadah ari | Mean         | Overall rank |
|--------|---|-------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoSe 16455  | 9.41*       | 10.42        | 9.75         | 8.60          | <b>9.55</b>  |              |
| 2      | CoSe 16456  | 12.04*      | 10.70        | 11.79        | 9.27          | <b>10.95</b> | <b>1</b>     |
| 3      | CoP 17444   | 8.80        | 12.40        | 9.61         | 9.03          | <b>9.96</b>  |              |
| 4      | CoP 17446   | 8.84        | 13.12*       | 10.31        | 8.34          | <b>10.15</b> |              |
| 5      | CoSe 17452  | 11.19*      | 8.89         | 9.78         | 8.29          | <b>9.54</b>  |              |
| 6      | CoBln 17502   | 6.22        | 6.76         | 7.36         | 7.57          | <b>6.98</b>  |              |
|        | <b>Standards</b>                                      |             |              |              |               |              |              |
| 1      | BO 91   | 8.47        | 8.51         | 13.39        | 8.84          | <b>9.80</b>  |              |
| 2      | CoP 9301  | 8.65        | 9.84         | 14.97        | 8.63          | <b>10.52</b> | <b>2</b>     |
| 3      | CoP 06436   | 8.42        | 10.35        | 13.83        | 9.12          | <b>10.43</b> | <b>3</b>     |
|        | <b>GM</b>   | <b>9.12</b> | <b>10.11</b> | <b>11.20</b> | <b>8.63</b>   | <b>9.76</b>  |              |
|        | SE (m)  | 0.23        | 0.79         | 0.18         | 0.06          |              |              |
|        | CD  | 0.68        | 2.38         | 0.54         | 0.20          |              |              |
|        | CV  | 4.32        | 13.50        | 4.79         | 5.88          |              |              |
|        | <b>Top three qualifying entries at each locations</b> |             |              |              |               |              |              |
|        | 1   | CoSe 16456  | CoP 17446    |              |               |              |              |
|        | 2   | CoSe 17452  | CoP 17444    |              |               |              |              |
|        | 3   |             |              |              |               |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoSe 16456 (1), CoP 17444 (1), CoP 17446 (1), CoSe 17452 (1).

**Performance across the locations:** The test entry CoSe 16456 ranked top in the zone with 4.06% improvement over the best standard across locations and also recorded 39.19% improvement over the best standard at Seorahi center. The standards CoP 9301 and CoP 06436 ranked second and third with 10.52% and 10.43% mean CCS yield. Other test entries CoP 17444 and CoP 17446 at recorded >10% improvement over best standard at Pusa centers. However, none of the test entries recorded >10% improvement over the best standard for CCS yield across locations.

**Table 5.10.2. Cane yield (t/ha) at harvest**

| S. No. | Entries   | Seorahi      | Pusa         | Moti pur     | Bethua dahari | Mean         | Overall rank |
|--------|---|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoSe 16455  | 87.04*       | 89.16        | 91.37        | 73.17         | <b>85.19</b> |              |
| 2      | CoSe 16456  | 88.94*       | 91.73        | 110.83       | 77.21         | <b>92.18</b> | <b>1</b>     |
| 3      | CoP 17444   | 75.49*       | 100.86       | 81.92        | 75.65         | <b>83.48</b> |              |
| 4      | CoP 17446   | 76.10*       | 106.06*      | 87.11        | 71.26         | <b>85.13</b> |              |
| 5      | CoSe 17452  | 88.04*       | 77.99        | 84.51        | 70.54         | <b>80.27</b> |              |
| 6      | CoBln 17502   | 53.83        | 60.99        | 67.65        | 67.13         | <b>62.40</b> |              |
|        | <b>Standards</b>                                      |              |              |              |               |              |              |
| 1      | BO 91   | 68.13        | 69.45        | 121.21       | 74.64         | <b>83.36</b> |              |
| 2      | CoP 9301  | 67.94        | 80.14        | 126.21       | 70.63         | <b>86.23</b> | <b>3</b>     |
| 3      | CoP 06436   | 70.66        | 85.40        | 126.76       | 78.61         | <b>90.36</b> | <b>2</b>     |
|        | <b>GM</b>   | <b>75.13</b> | <b>84.64</b> | <b>99.73</b> | <b>73.20</b>  | <b>83.18</b> |              |
|        | SE (m)  | 0.52         | 6.37         | 1.41         | 0.62          |              |              |
|        | CD  | 1.55         | 19.25        | 4.22         | 1.87          |              |              |
|        | CV  | 3.89         | 13.03        | 7.45         | 5.02          |              |              |
|        | <b>Top three qualifying entries at each locations</b> |              |              |              |               |              |              |
|        | 1   | CoSe 16456   | CoP 17446    |              |               |              |              |
|        | 2   | CoSe 17452   | CoP 17444    |              |               |              |              |
|        | 3   | CoSe 16455   |              |              |               |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >10% improvement:** CoSe 16455 (1), CoSe 16456 (1), CoP 17444 (1), CoP 17446 (1), CoSe 17452 (1).

**Performance across the locations:** The test entry CoSe 16456 ranked top with 92.18 t/ha cane yield in the zone and also recorded 25.87% improvement for cane yield over best standard at Seorahi center. The standards CoP 06436 and CoP 9301 ranked second and third with 90.36 and 86.23 t/ha mean cane yield. None of the test entries recorded >10% improvement over the best standard for cane yield across locations.

**Table 5.10.3. CCS (%) at harvest**

| S. No. | Entries   | Seorahi      | Pusa         | Moti pur     | Bethua dahari | Mean         | Overall rank |
|--------|---|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoSe 16455  | 10.81        | 11.67        | 10.67        | 11.76         | <b>11.23</b> |              |
| 2      | CoSe 16456  | 13.54        | 11.67        | 10.64        | 12.00         | <b>11.96</b> | <b>2</b>     |
| 3      | CoP 17444   | 11.66        | 12.30        | 11.73        | 11.94         | <b>11.91</b> | <b>3</b>     |
| 4      | CoP 17446   | 11.61        | 12.35        | 11.84        | 11.71         | <b>11.88</b> |              |
| 5      | CoSe 17452  | 12.70        | 11.38        | 11.57        | 11.76         | <b>11.85</b> |              |
| 6      | CoBln 17502   | 11.56        | 11.10        | 10.89        | 11.28         | <b>11.21</b> |              |
|        | <b>Standards</b>                                      |              |              |              |               |              |              |
| 1      | BO 91   | 12.44        | 12.23        | 11.04        | 11.84         | <b>11.89</b> |              |
| 2      | CoP 9301  | 13.37        | 12.30        | 11.86        | 12.21         | <b>12.44</b> | <b>1</b>     |
| 3      | CoP 06436   | 11.93        | 12.14        | 10.91        | 11.61         | <b>11.65</b> |              |
|        | <b>GM</b>   | <b>12.18</b> | <b>11.90</b> | <b>11.24</b> | <b>11.79</b>  | <b>11.78</b> |              |
|        | SE (m)  | 0.19         | 0.14         | 0.10         | 0.05          |              |              |
|        | CD  | 0.57         | 0.44         | 0.33         | 0.17          |              |              |
|        | CV  | 2.69         | 2.09         | 4.67         | 2.23          |              |              |
|        | <b>Top three qualifying entries at each locations</b> |              |              |              |               |              |              |
|        | 1   |              |              |              |               |              |              |
|        | 2   |              |              |              |               |              |              |
|        | 3   |              |              |              |               |              |              |

\* Significantly superior over the best standard.

**No. of locations where an entry recorded >5% improvement:** Nil

**Performance across the locations:** The standard CoP 9301 ranked top in the zone with 12.44% mean CCS% across the locations. Hence, none of the test entries recorded >5% improvement over the best standard for CCS% across locations.



**Table 5.10.4. Sucrose (%) at harvest**

| S. No. | Entries   | Seorahi      | Pusa         | Moti pur     | Bethua dahari | Mean         | Overall rank |
|--------|---|--------------|--------------|--------------|---------------|--------------|--------------|
| 1      | CoSe 16455  | 15.69        | 16.90        | 15.45        | 17.03         | <b>16.27</b> |              |
| 2      | CoSe 16456  | 19.60        | 16.90        | 15.42        | 17.30         | <b>17.31</b> | <b>2</b>     |
| 3      | CoP 17444   | 16.97        | 17.85        | 16.89        | 17.27         | <b>17.25</b> | <b>3</b>     |
| 4      | CoP 17446   | 16.93        | 17.90        | 17.02        | 16.96         | <b>17.20</b> |              |
| 5      | CoSe 17452  | 18.47        | 16.50        | 16.58        | 17.04         | <b>17.15</b> |              |
| 6      | CoBln 17502   | 16.79        | 16.10        | 15.63        | 16.36         | <b>16.22</b> |              |
|        | <b>Standards</b>                                      |              |              |              |               |              |              |
| 1      | BO 91   | 18.11        | 17.72        | 15.90        | 17.08         | <b>17.20</b> |              |
| 2      | CoP 9301  | 19.97        | 17.80        | 17.12        | 17.52         | <b>18.10</b> | <b>1</b>     |
| 3      | CoP 06436   | 17.33        | 17.60        | 15.56        | 16.80         | <b>16.82</b> |              |
|        | <b>GM</b>   | <b>17.76</b> | <b>17.25</b> | <b>16.17</b> | <b>17.04</b>  | <b>17.06</b> |              |
|        | SE (m)  | 0.21         | 0.20         | 0.14         | 0.08          |              |              |
|        | CD  | 0.62         | 0.60         | 0.43         | 0.25          |              |              |
|        | CV  | 2.01         | 1.98         | 3.53         | 1.97          |              |              |
|        | <b>Top three qualifying entries at each locations</b> |              |              |              |               |              |              |
|        | 1   |              |              |              |               |              |              |
|        | 2   |              |              |              |               |              |              |
|        | 3   |              |              |              |               |              |              |

\*Significantly superior over the best standard.

**No. of locations where an entry recorded >5% improvement: Nil**

**Performance across the locations:** None of the test entries recorded >5% improvement over the best standard for sucrose% across locations. Standard CoP 9301 ranked top in the zone with 18.10% mean sucrose%. The test entry CoSe 16456 ranked second in the zone with 17.31% mean sucrose% followed by another test entry CoP 17444 with 17.25% mean sucrose%.

**Table 5.10.5. Brix (%) at harvest**

| S. No.           | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|------------------|-------------|--------------|--------------|--------------|---------------|--------------|
| 1                | CoSe 16455  | 17.87        | 19.20        | 17.54        | 19.34         | <b>18.49</b> |
| 2                | CoSe 16456  | 22.61        | 19.20        | 17.53        | 19.45         | <b>19.70</b> |
| 3                | CoP 17444   | 19.44        | 20.37        | 18.94        | 19.55         | <b>19.58</b> |
| 4                | CoP 17446   | 19.49        | 20.33        | 19.01        | 19.27         | <b>19.53</b> |
| 5                | CoSe 17452  | 21.12        | 18.77        | 18.38        | 19.37         | <b>19.41</b> |
| 6                | CoBln 17502 | 19.15        | 18.34        | 17.41        | 18.64         | <b>18.39</b> |
| <b>Standards</b> |             |              |              |              |               |              |
| 1                | BO 91       | 20.79        | 20.13        | 17.81        | 19.22         | <b>19.49</b> |
| 2                | CoP 9301    | 22.64        | 20.17        | 19.31        | 19.49         | <b>20.40</b> |
| 3                | CoP 06436   | 19.81        | 19.97        | 17.11        | 19.05         | <b>18.99</b> |
|                  | <b>GM</b>   | <b>20.32</b> | <b>19.61</b> | <b>18.12</b> | <b>19.26</b>  | <b>19.33</b> |
|                  | SE (m)      | 0.24         | 0.21         | 0.23         | 0.10          |              |
|                  | CD          | 0.74         | 0.64         | 0.70         | 0.31          |              |
|                  | CV          | 2.02         | 1.86         | 5.22         | 1.60          |              |

**Table 5.10.6. Purity (%) at harvest**

| S. No.           | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|------------------|-------------|--------------|--------------|--------------|---------------|--------------|
| 1                | CoSe 16455  | 87.76        | 88.10        | 88.11        | 88.06         | <b>88.01</b> |
| 2                | CoSe 16456  | 88.24        | 88.00        | 87.96        | 88.95         | <b>88.29</b> |
| 3                | CoP 17444   | 87.28        | 87.77        | 89.20        | 88.34         | <b>88.15</b> |
| 4                | CoP 17446   | 86.86        | 88.10        | 89.55        | 88.01         | <b>88.13</b> |
| 5                | CoSe 17452  | 87.43        | 87.93        | 90.20        | 87.97         | <b>88.38</b> |
| 6                | CoBln 17502 | 87.67        | 88.03        | 89.77        | 87.77         | <b>88.31</b> |
| <b>Standards</b> |             |              |              |              |               |              |
| 1                | BO 91       | 87.13        | 88.30        | 89.25        | 88.87         | <b>88.39</b> |
| 2                | CoP 9301    | 88.19        | 88.23        | 88.65        | 89.89         | <b>88.74</b> |
| 3                | CoP 06436   | 87.49        | 88.13        | 80.99        | 88.19         | <b>86.20</b> |
|                  | <b>GM</b>   | <b>87.56</b> | <b>88.07</b> | <b>88.19</b> | <b>88.45</b>  | <b>88.07</b> |
|                  | SE (m)      | 0.27         | 0.20         | 0.82         | 0.17          |              |
|                  | CD          | 0.82         | 0.62         | 2.45         | 0.52          |              |
|                  | CV          | 0.54         | 0.39         | 4.59         | 0.79          |              |

**Table 5.10.7. Pol (%) cane at harvest**

| S. No.           | Entries     | Seorahi | Pusa         | Motipur      | Bethua dahari | Mean         |
|------------------|-------------|---------|--------------|--------------|---------------|--------------|
| 1                | CoSe 16455  |         | 12.99        | 12.01        |               | <b>12.50</b> |
| 2                | CoSe 16456  |         | 13.06        | 12.03        |               | <b>12.55</b> |
| 3                | CoP 17444   |         | 13.90        | 13.11        |               | <b>13.51</b> |
| 4                | CoP 17446   |         | 13.92        | 13.15        |               | <b>13.54</b> |
| 5                | CoSe 17452  |         | 12.70        | 12.91        |               | <b>12.81</b> |
| 6                | CoBln 17502 |         | 12.37        | 12.17        |               | <b>12.27</b> |
| <b>Standards</b> |             |         |              |              |               |              |
| 1                | BO 91       |         | 13.80        | 12.38        |               | <b>13.09</b> |
| 2                | CoP 9301    |         | 13.88        | 13.23        |               | <b>13.56</b> |
| 3                | CoP 06436   |         | 13.46        | 12.18        |               | <b>12.82</b> |
|                  | <b>GM</b>   |         | <b>13.34</b> | <b>12.57</b> |               | <b>12.96</b> |
|                  | SE (m)      |         | 0.17         | 0.11         |               |              |
|                  | CD          |         | 0.51         | 0.33         |               |              |
|                  | CV          |         | 2.17         | 1.51         |               |              |

**Table 5.10.8. Extraction (%) at harvest**

| S. No.           | Entries     | Seorahi | Pusa         | Motipur      | Bethua dahari | Mean         |
|------------------|-------------|---------|--------------|--------------|---------------|--------------|
| 1                | CoSe 16455  |         | 58.30        | 55.00        |               | <b>56.65</b> |
| 2                | CoSe 16456  |         | 58.10        | 53.66        |               | <b>55.88</b> |
| 3                | CoP 17444   |         | 62.70        | 52.66        |               | <b>57.68</b> |
| 4                | CoP 17446   |         | 61.85        | 52.33        |               | <b>57.09</b> |
| 5                | CoSe 17452  |         | 57.20        | 52.66        |               | <b>54.93</b> |
| 6                | CoBln 17502 |         | 54.60        | 50.33        |               | <b>52.47</b> |
| <b>Standards</b> |             |         |              |              |               |              |
| 1                | BO 91       |         | 61.30        | 52.66        |               | <b>56.98</b> |
| 2                | CoP 9301    |         | 60.15        | 55.33        |               | <b>57.74</b> |
| 3                | CoP 06436   |         | 54.83        | 53.66        |               | <b>54.25</b> |
|                  | <b>GM</b>   |         | <b>58.78</b> | <b>53.14</b> |               | <b>55.96</b> |
|                  | SE (m)      |         | 2.04         | 1.95         |               |              |
|                  | CD          |         | 6.42         | 5.84         |               |              |
|                  | CV          |         | 6.00         | 6.35         |               |              |

**Table 5.10.9. Fibre (%) at harvest**

| S. No.           | Entries     | Seorahi | Pusa         | Motipur      | Bethua dahari | Mean         |
|------------------|-------------|---------|--------------|--------------|---------------|--------------|
| 1                | CoSe 16455  |         | 13.13        | 12.29        |               | <b>12.71</b> |
| 2                | CoSe 16456  |         | 12.70        | 11.97        |               | <b>12.34</b> |
| 3                | CoP 17444   |         | 12.15        | 12.40        |               | <b>12.28</b> |
| 4                | CoP 17446   |         | 12.21        | 12.75        |               | <b>12.48</b> |
| 5                | CoSe 17452  |         | 13.05        | 12.13        |               | <b>12.59</b> |
| 6                | CoBln 17502 |         | 13.18        | 12.15        |               | <b>12.67</b> |
| <b>Standards</b> |             |         |              |              |               |              |
| 1                | BO 91       |         | 12.07        | 12.14        |               | <b>12.11</b> |
| 2                | CoP 9301    |         | 12.01        | 12.75        |               | <b>12.38</b> |
| 3                | CoP 06436   |         | 13.41        | 11.70        |               | <b>12.56</b> |
|                  | <b>GM</b>   |         | <b>12.66</b> | <b>12.25</b> |               | <b>12.46</b> |
|                  | SE (m)      |         | 0.40         | 0.25         |               |              |
|                  | CD          |         | 1.26         | 0.75         |               |              |
|                  | CV          |         | 5.48         | 5.53         |               |              |

**Table 5.10.10. Number of Millable Canes ('000/ha) at harvest**

| S. No.           | Entries     | Seorahi      | Pusa          | Motipur      | Bethua dahari | Mean          |
|------------------|-------------|--------------|---------------|--------------|---------------|---------------|
| 1                | CoSe 16455  | 103.00       | 102.80        | 92.66        | 122.17        | <b>105.16</b> |
| 2                | CoSe 16456  | 109.00       | 103.50        | 102.66       | 127.46        | <b>110.66</b> |
| 3                | CoP 17444   | 94.00        | 105.21        | 74.66        | 125.63        | <b>99.88</b>  |
| 4                | CoP 17446   | 96.00        | 107.82        | 90.00        | 119.72        | <b>103.39</b> |
| 5                | CoSe 17452  | 114.00       | 95.89         | 65.00        | 118.41        | <b>98.33</b>  |
| 6                | CoBln 17502 | 63.00        | 78.30         | 63.66        | 108.06        | <b>78.26</b>  |
| <b>Standards</b> |             |              |               |              |               |               |
| 1                | BO 91       | 93.00        | 101.40        | 104.00       | 134.44        | <b>108.21</b> |
| 2                | CoP 9301    | 91.00        | 108.30        | 111.00       | 119.35        | <b>107.41</b> |
| 3                | CoP 06436   | 102.00       | 109.25        | 113.33       | 137.93        | <b>115.63</b> |
|                  | <b>GM</b>   | <b>96.11</b> | <b>101.39</b> | <b>90.77</b> | <b>123.69</b> | <b>102.99</b> |
|                  | SE (m)      | 0.67         | 5.77          | 4.92         | 1.34          |               |
|                  | CD          | 2.00         | 17.44         | 14.75        | 4.02          |               |
|                  | CV          | 3.90         | 9.85          | 8.91         | 7.01          |               |

**Table 5.10.11. Stalk Length (cm) at harvest**

| S. No.           | Entries     | Seorahi       | Pusa          | Motipur       | Bethua dahari | Mean          |
|------------------|-------------|---------------|---------------|---------------|---------------|---------------|
| 1                | CoSe 16455  | 206.00        | 280.00        | 273.33        | 255.33        | <b>253.67</b> |
| 2                | CoSe 16456  | 204.00        | 295.00        | 315.00        | 262.67        | <b>269.17</b> |
| 3                | CoP 17444   | 207.00        | 285.00        | 213.33        | 262.33        | <b>241.92</b> |
| 4                | CoP 17446   | 199.00        | 287.00        | 206.66        | 241.67        | <b>233.58</b> |
| 5                | CoSe 17452  | 216.00        | 260.00        | 276.66        | 250.33        | <b>250.75</b> |
| 6                | CoBln 17502 | 162.00        | 278.00        | 296.66        | 245.33        | <b>245.50</b> |
| <b>Standards</b> |             |               |               |               |               |               |
| 1                | BO 91       | 183.00        | 275.00        | 266.66        | 246.67        | <b>242.83</b> |
| 2                | CoP 9301    | 171.00        | 281.00        | 270.00        | 231.00        | <b>238.25</b> |
| 3                | CoP 06436   | 197.00        | 289.00        | 303.33        | 268.67        | <b>264.50</b> |
|                  | <b>GM</b>   | <b>193.89</b> | <b>281.11</b> | <b>269.07</b> | <b>251.56</b> | <b>248.91</b> |
|                  | SE (m)      | 4.73          | 9.60          | 5.12          | 4.26          |               |
|                  | CD          | 14.18         | 30.24         | 15.35         | 12.79         |               |
|                  | CV          | 4.23          | 5.91          | 3.29          | 5.12          |               |

**Table 5.10.12. Stalk Diameter (cm) at harvest**

| S. No.           | Entries     | Seorahi     | Pusa        | Motipur     | Bethua dahari | Mean        |
|------------------|-------------|-------------|-------------|-------------|---------------|-------------|
| 1                | CoSe 16455  | 2.30        | 2.61        | 2.16        | 2.15          | <b>2.31</b> |
| 2                | CoSe 16456  | 2.30        | 2.56        | 2.48        | 2.28          | <b>2.41</b> |
| 3                | CoP 17444   | 2.20        | 2.48        | 2.06        | 2.28          | <b>2.26</b> |
| 4                | CoP 17446   | 2.10        | 2.57        | 2.20        | 2.16          | <b>2.26</b> |
| 5                | CoSe 17452  | 2.10        | 2.51        | 2.60        | 2.29          | <b>2.38</b> |
| 6                | CoBln 17502 | 2.00        | 2.67        | 2.40        | 2.31          | <b>2.35</b> |
| <b>Standards</b> |             |             |             |             |               |             |
| 1                | BO 91       | 1.90        | 2.21        | 1.86        | 2.18          | <b>2.04</b> |
| 2                | CoP 9301    | 1.80        | 2.34        | 2.20        | 2.04          | <b>2.10</b> |
| 3                | CoP 06436   | 2.20        | 2.61        | 2.16        | 2.36          | <b>2.33</b> |
|                  | <b>GM</b>   | <b>2.10</b> | <b>2.51</b> | <b>2.24</b> | <b>2.23</b>   | <b>2.27</b> |
|                  | SE (m)      | 0.06        | 0.10        | 0.04        | 0.03          |             |
|                  | CD          | 0.18        | 0.33        | 0.13        | 0.09          |             |
|                  | CV          | 5.02        | 7.09        | 4.22        | 4.71          |             |

**Table 5.10.13. Single Cane Weight (kg) at harvest**

| S. No.           | Entries     | Seorahi     | Pusa        | Motipur     | Bethua dahari | Mean        |
|------------------|-------------|-------------|-------------|-------------|---------------|-------------|
| 1                | CoSe 16455  | 0.85        | 0.87        | 0.89        | 0.62          | <b>0.81</b> |
| 2                | CoSe 16456  | 0.82        | 0.89        | 1.50        | 0.72          | <b>0.98</b> |
| 3                | CoP 17444   | 0.81        | 0.96        | 0.76        | 0.71          | <b>0.81</b> |
| 4                | CoP 17446   | 0.78        | 0.98        | 0.65        | 0.66          | <b>0.77</b> |
| 5                | CoSe 17452  | 0.77        | 0.81        | 1.06        | 0.66          | <b>0.83</b> |
| 6                | CoBln 17502 | 0.84        | 0.78        | 1.19        | 0.73          | <b>0.88</b> |
| <b>Standards</b> |             |             |             |             |               |             |
| 1                | BO 91       | 0.75        | 0.62        | 0.77        | 0.65          | <b>0.70</b> |
| 2                | CoP 9301    | 0.74        | 0.75        | 1.07        | 0.59          | <b>0.79</b> |
| 3                | CoP 06436   | 0.70        | 0.78        | 1.17        | 0.74          | <b>0.85</b> |
|                  | <b>GM</b>   | <b>0.78</b> | <b>0.83</b> | <b>1.01</b> | <b>0.67</b>   | <b>0.82</b> |
|                  | SE (m)      | 0.01        | 0.04        | 0.04        | 0.01          |             |
|                  | CD          | 0.02        | 0.12        | 0.13        | 0.04          |             |
|                  | CV          | 1.34        | 8.53        | 7.25        | 7.80          |             |

**Table 5.10.14. CCS (%) at 300 days**

| S. No.           | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|------------------|-------------|--------------|--------------|--------------|---------------|--------------|
| 1                | CoSe 16455  | 10.30        | 10.95        | 10.27        | 11.18         | <b>10.68</b> |
| 2                | CoSe 16456  | 10.45        | 11.35        | 10.62        | 11.44         | <b>10.97</b> |
| 3                | CoP 17444   | 11.64        | 11.88        | 10.81        | 11.36         | <b>11.42</b> |
| 4                | CoP 17446   | 11.10        | 11.56        | 11.53        | 11.14         | <b>11.33</b> |
| 5                | CoSe 17452  | 11.89        | 10.84        | 11.02        | 11.11         | <b>11.22</b> |
| 6                | CoBln 17502 | 10.10        | 10.66        | 9.12         | 10.59         | <b>10.12</b> |
| <b>Standards</b> |             |              |              |              |               |              |
| 1                | BO 91       | 11.04        | 11.05        | 10.19        | 11.26         | <b>10.89</b> |
| 2                | CoP 9301    | 12.09        | 11.34        | 11.53        | 11.48         | <b>11.61</b> |
| 3                | CoP 06436   | 11.48        | 11.00        | 11.23        | 11.11         | <b>11.21</b> |
|                  | <b>GM</b>   | <b>11.12</b> | <b>11.18</b> | <b>10.70</b> | <b>11.19</b>  | <b>11.05</b> |
|                  | SE (m)      | 0.31         | 0.13         | 0.18         | 0.05          |              |
|                  | CD          | 0.94         | 0.40         | 0.57         | 0.17          |              |
|                  | CV          | 4.88         | 2.06         | 3.07         | 2.30          |              |

**Table 5.10.15. Sucrose (%) at 300 days**

| S. No.           | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|------------------|-------------|--------------|--------------|--------------|---------------|--------------|
| 1                | CoSe 16455  | 13.56        | 16.10        | 14.64        | 16.42         | <b>15.18</b> |
| 2                | CoSe 16456  | 15.14        | 16.56        | 15.07        | 16.79         | <b>15.89</b> |
| 3                | CoP 17444   | 16.85        | 17.35        | 14.41        | 16.66         | <b>16.32</b> |
| 4                | CoP 17446   | 16.09        | 16.64        | 16.42        | 16.35         | <b>16.38</b> |
| 5                | CoSe 17452  | 17.18        | 15.97        | 15.73        | 16.33         | <b>16.30</b> |
| 6                | CoBln 17502 | 14.65        | 15.85        | 12.83        | 15.57         | <b>14.73</b> |
| <b>Standards</b> |             |              |              |              |               |              |
| 1                | BO 91       | 16.03        | 16.26        | 14.77        | 16.51         | <b>15.89</b> |
| 2                | CoP 9301    | 17.50        | 16.50        | 16.50        | 16.78         | <b>16.82</b> |
| 3                | CoP 06436   | 16.64        | 16.16        | 15.98        | 16.32         | <b>16.28</b> |
|                  | <b>GM</b>   | <b>15.96</b> | <b>16.38</b> | <b>15.15</b> | <b>16.41</b>  | <b>15.98</b> |
|                  | SE (m)      | 0.27         | 0.18         | 0.22         | 0.08          |              |
|                  | CD          | 0.81         | 0.55         | 0.67         | 0.26          |              |
|                  | CV          | 2.93         | 1.94         | 4.53         | 2.22          |              |

**Table 5.10.16. Brix (%) at 300 days**

| S. No.           | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|------------------|-------------|--------------|--------------|--------------|---------------|--------------|
| 1                | CoSe 16455  | 15.52        | 18.87        | 16.06        | 19.17         | <b>17.41</b> |
| 2                | CoSe 16456  | 17.19        | 19.10        | 16.38        | 19.59         | <b>18.07</b> |
| 3                | CoP 17444   | 19.11        | 20.03        | 16.91        | 19.42         | <b>18.87</b> |
| 4                | CoP 17446   | 18.31        | 19.17        | 17.98        | 19.09         | <b>18.64</b> |
| 5                | CoSe 17452  | 19.40        | 18.77        | 17.29        | 19.09         | <b>18.64</b> |
| 6                | CoBln 17502 | 16.69        | 18.97        | 13.70        | 18.22         | <b>16.90</b> |
| <b>Standards</b> |             |              |              |              |               |              |
| 1                | BO 91       | 18.28        | 19.07        | 16.80        | 19.23         | <b>18.35</b> |
| 2                | CoP 9301    | 19.86        | 18.93        | 18.24        | 19.41         | <b>19.11</b> |
| 3                | CoP 06436   | 18.95        | 18.90        | 17.44        | 19.08         | <b>18.59</b> |
|                  | <b>GM</b>   | <b>18.15</b> | <b>19.09</b> | <b>16.76</b> | <b>19.14</b>  | <b>18.28</b> |
|                  | SE (m)      | 0.31         | 0.23         | 0.24         | 0.11          |              |
|                  | CD          | 0.95         | 0.68         | 0.73         | 0.34          |              |
|                  | CV          | 2.99         | 2.05         | 5.51         | 2.11          |              |

**Table 5.10.17. Purity (%) at 300 days**

| S. No.           | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|------------------|-------------|--------------|--------------|--------------|---------------|--------------|
| 1                | CoSe 16455  | 87.33        | 85.20        | 91.13        | 85.65         | <b>87.33</b> |
| 2                | CoSe 16456  | 88.09        | 86.70        | 92.07        | 85.71         | <b>88.14</b> |
| 3                | CoP 17444   | 88.17        | 86.70        | 91.12        | 85.79         | <b>87.95</b> |
| 4                | CoP 17446   | 87.86        | 86.80        | 91.29        | 85.65         | <b>87.90</b> |
| 5                | CoSe 17452  | 88.54        | 85.20        | 90.96        | 85.54         | <b>87.56</b> |
| 6                | CoBln 17502 | 87.75        | 83.50        | 93.72        | 85.46         | <b>87.61</b> |
| <b>Standards</b> |             |              |              |              |               |              |
| 1                | BO 91       | 87.70        | 85.20        | 87.96        | 85.86         | <b>86.68</b> |
| 2                | CoP 9301    | 88.10        | 87.10        | 90.47        | 86.45         | <b>88.03</b> |
| 3                | CoP 06436   | 87.80        | 85.50        | 91.63        | 85.53         | <b>87.62</b> |
|                  | <b>GM</b>   | <b>87.93</b> | <b>85.77</b> | <b>91.15</b> | <b>85.74</b>  | <b>87.65</b> |
|                  | SE (m)      | 0.54         | 0.41         | 1.17         | 0.13          |              |
|                  | CD          | 1.63         | 1.25         | 3.52         | 0.40          |              |
|                  | CV          | 1.07         | 0.83         | 2.23         | 0.45          |              |

**Table 5.10.18. Number of Shoots ('000/ha) at 240 days**

| S. No.           | Entries     | Seorahi | Pusa          | Motipur       | Bethua dahari | Mean          |
|------------------|-------------|---------|---------------|---------------|---------------|---------------|
| 1                | CoSe 16455  |         | 141.20        | 99.66         | 126.63        | <b>122.50</b> |
| 2                | CoSe 16456  |         | 135.60        | 105.66        | 131.24        | <b>124.17</b> |
| 3                | CoP 17444   |         | 146.82        | 86.33         | 130.16        | <b>121.10</b> |
| 4                | CoP 17446   |         | 147.32        | 103.00        | 124.18        | <b>124.83</b> |
| 5                | CoSe 17452  |         | 136.82        | 76.66         | 123.87        | <b>112.45</b> |
| 6                | CoBln 17502 |         | 101.20        | 77.33         | 115.91        | <b>98.15</b>  |
| <b>Standards</b> |             |         |               |               |               |               |
| 1                | BO 91       |         | 141.30        | 121.66        | 142.54        | <b>135.17</b> |
| 2                | CoP 9301    |         | 142.82        | 127.33        | 123.81        | <b>131.32</b> |
| 3                | CoP 06436   |         | 145.31        | 141.33        | 143.70        | <b>143.45</b> |
|                  | <b>GM</b>   |         | <b>137.60</b> | <b>104.33</b> | <b>129.12</b> | <b>123.68</b> |
|                  | SE (m)      |         | 6.86          | 2.80          | 1.36          |               |
|                  | CD          |         | 20.75         | 8.40          | 4.07          |               |
|                  | CV          |         | 8.64          | 6.23          | 6.79          |               |



**Table 5.10.19. Number of Tillers ('000/ha) at 120 days**

| S. No.           | Entries     | Seorahi       | Pusa          | Motipur       | Bethua dahari | Mean          |
|------------------|-------------|---------------|---------------|---------------|---------------|---------------|
| 1                | CoSe 16455  | 185.00        | 102.30        | 107.33        | 120.59        | <b>128.81</b> |
| 2                | CoSe 16456  | 193.00        | 105.66        | 117.66        | 125.40        | <b>135.43</b> |
| 3                | CoP 17444   | 174.00        | 107.28        | 84.66         | 124.09        | <b>122.51</b> |
| 4                | CoP 17446   | 181.00        | 110.65        | 115.66        | 117.84        | <b>131.29</b> |
| 5                | CoSe 17452  | 189.00        | 95.20         | 85.33         | 117.98        | <b>121.88</b> |
| 6                | CoBln 17502 | 125.00        | 72.30         | 89.00         | 107.47        | <b>98.44</b>  |
| <b>Standards</b> |             |               |               |               |               |               |
| 1                | BO 91       | 176.00        | 105.20        | 142.66        | 136.78        | <b>140.16</b> |
| 2                | CoP 9301    | 162.00        | 107.81        | 143.66        | 118.82        | <b>133.07</b> |
| 3                | CoP 06436   | 178.00        | 110.30        | 147.66        | 137.93        | <b>143.47</b> |
|                  | <b>GM</b>   | <b>173.67</b> | <b>101.86</b> | <b>114.85</b> | <b>122.99</b> | <b>128.34</b> |
|                  | SE (m)      | 1.36          | 5.81          | 2.33          | 1.58          |               |
|                  | CD          | 4.08          | 17.58         | 6.99          | 4.76          |               |
|                  | CV          | 4.41          | 9.89          | 10.78         | 7.57          |               |

**Table 5.10.20. Germination (%) at 45 days**

| S. No.           | Entries     | Seorahi      | Pusa         | Motipur      | Bethua dahari | Mean         |
|------------------|-------------|--------------|--------------|--------------|---------------|--------------|
| 1                | CoSe 16455  | 49.30        | 40.55        | 26.26        | 33.96         | <b>37.52</b> |
| 2                | CoSe 16456  | 57.22        | 41.25        | 37.06        | 37.81         | <b>43.34</b> |
| 3                | CoP 17444   | 46.80        | 44.35        | 19.80        | 38.12         | <b>37.27</b> |
| 4                | CoP 17446   | 47.50        | 45.12        | 28.70        | 33.05         | <b>38.59</b> |
| 5                | CoSe 17452  | 53.33        | 39.51        | 29.66        | 33.50         | <b>39.00</b> |
| 6                | CoBln 17502 | 41.11        | 29.35        | 17.46        | 30.40         | <b>29.58</b> |
| <b>Standards</b> |             |              |              |              |               |              |
| 1                | BO 91       | 48.06        | 39.80        | 37.96        | 40.11         | <b>41.48</b> |
| 2                | CoP 9301    | 44.86        | 41.20        | 37.63        | 37.73         | <b>40.36</b> |
| 3                | CoP 06436   | 45.97        | 43.20        | 45.73        | 39.44         | <b>43.59</b> |
|                  | <b>GM</b>   | <b>48.24</b> | <b>40.48</b> | <b>31.14</b> | <b>36.01</b>  | <b>38.97</b> |
|                  | SE (m)      | 0.85         | 2.23         | 1.92         | 0.82          |              |
|                  | CD          | 2.54         | 6.73         | 5.76         | 2.47          |              |
|                  | CV          | 7.31         | 9.53         | 7.79         | 9.33          |              |

**Table 5.10.21 Assessment of the performance of entries compared to the best standard by monitoring team constituted by AICRP(S)**

| <b>Entry / Locations</b>              | <b>Seorahi</b> | <b>Pusa</b> | <b>Motipur</b> | <b>Bethuadhari</b> | <b>Buralikson*</b> |
|---------------------------------------|----------------|-------------|----------------|--------------------|--------------------|
| CoP 17444                             | Good           | Very good   | Good           | Very Good          | Not conducted      |
| CoP17446                              | Good           | Very good   | Very good      | Very Good          | Not conducted      |
| CoSe16455                             | Good           | Very good   | Excellent      | Good               | Not conducted      |
| CoSe 16456                            | Excellent      | Very good   | Excellent      | Very Good          | Not conducted      |
| CoSe17452                             | Good           | Good        | Good           | Good               | Not conducted      |
| CoBln17502                            | Poor           | Good        | Good           | Good               | Not conducted      |
| <b>Standards</b>                      |                |             |                |                    |                    |
| BO91                                  | Good           | Good        | Good           | Good               | Not conducted      |
| CoP9301                               | Good           | Good        | Good           | Good               | Not conducted      |
| CoP 06436                             | Very Good      | Very good   | Very good      | Very good          | Not conducted      |
| Overall Performance of the Experiment | Good           | Very good   | Excellent      | Good               | Not conducted      |

## 6. Fluff Supply Programme

National Hybridisation Garden (NHG) is a national facility for the sugarcane breeders from 24 participating centers of AICRP(S) for generating genetic variability. The parental clones are from ICAR-SBI and the participating centres of fluff supply programme which are involved in sugarcane variety development programmes in the country. Content of the National hybridization garden were revised based on their utilization in the breeding programme of fluff receiving centers. Those which were present in NHG and were not utilized in the crossing programme for the last five years were identified. The unutilized 147 parents from 16 centers were supplied to the nominating centers for their maintenance at the place of origin. Thereby content of NHG 2020 was reduced to manageable size of 424 including the nine introductions viz., BO 128, CoP 9301, CoP 18436, CoP 18437 from Pusa, CoV 18357 and CoV 18358 from Vuyyuru LG 11440, LG 14482 and LG 14564 from Lucknow. Apart from this, two poly-cross nurseries, one with 13 females and 8 males for tropical region and other with eight males and eight females for subtropical region were also planted.

Out of 424 parents, 411 flowered with flowering intensity of 96.93 %. Information on flowering of parental clones was made available to the participating centres by hosting the data on different stages of flowering and updating the same in weekly interval during September to December 2020 in the ICAR-Sugarcane Breeding Institute website <https://sugarcane.icar.gov.in..> This year, since the COVID-19 pandemic has restricted travel, ICAR-SBI has taken up the responsibility of making the crosses for the entire country. The centers were asked to send the list of crosses of their choice based on the flowering data available in ICAR-SBI website, Among 24 centers, 22 sent the cross list. Hybridization work was initiated on 27<sup>th</sup> October 2020 and concluded on 5<sup>th</sup> December 2020. Totally 426 crosses were effected for the 21 centres. Motipur and Burlikson centres did not sent the list of crosses and hence no crosses were effected for these centres.

Table 6.1. Details of station crosses, poly crosses and general collections made for the participating centers and quantity of fluff supplied during 2020-'21

| S. NO                  | Centre     | No. of Bi parental cross | Fluff weight (g) | No of GCs | Flff weight | No. of Pc | Fluff weight | Total quantity of fluff (g) |
|------------------------|------------|--------------------------|------------------|-----------|-------------|-----------|--------------|-----------------------------|
| <b>Peninsular Zone</b> |            |                          |                  |           |             |           |              |                             |
| 1                      | Mandya     | 20                       | 469.0            | 15        | 203.0       | 5         | 49.0         | 721.0                       |
| 2                      | Navsari    | 20                       | 494.0            | 15        | 406.0       | 5         | 46.0         | 946.0                       |
| 3                      | Padegaon   | 20                       | 452.0            | 15        | 333.0       | 5         | 46.0         | 831.0                       |
| 4                      | Powarkheda | 20                       | 367.0            | 15        | 204.0       | 5         | 40.0         | 611.0                       |
| 5                      | Pune       | 20                       | 325.0            | 15        | 455.0       | 5         | 43.0         | 823.0                       |
| 6                      | Rudrur     | 20                       | 429.0            | 14        | 395.0       | 5         | 56.0         | 880.0                       |
| 7                      | Sankeshwar | 20                       | 560.5            | 14        | 383.0       | 5         | 45.0         | 988.5                       |
| 8                      | Thiruvalla | 20                       | 391.0            | 15        | 224.0       | 5         | 44.0         | 659.0                       |
|                        | Total      | 160                      | 3487.5           | 118.0     | 2603.0      | 5*        | 369.0        | 6459.5                      |
| <b>East Coast Zone</b> |            |                          |                  |           |             |           |              |                             |

|    |                           |    |        |       |        |    |       |         |
|----|---------------------------|----|--------|-------|--------|----|-------|---------|
| 9  | Anakapalle                | 20 | 428.0  | 14    | 340.0  | 5  | 51.0  | 819.0   |
| 10 | Cuddalore                 | 20 | 464.0  | 15    | 230.0  | 5  | 49.0  | 743.0   |
| 11 | Nayagarh                  | 20 | 392.0  | 14    | 261.0  | 5  | 48.0  | 701.0   |
| 12 | Vuyyuru                   | 20 | 504.0  | 15    | 318.0  | 5  | 61.0  | 883.0   |
|    |                           | 80 | 1788.0 | 58.0  | 1149.0 | 5* | 209.0 | 3146.0  |
|    | <b>North West Zone</b>    |    |        |       |        |    |       |         |
| 13 | Faridkot                  | 19 | 518.5  | 17    | 330.0  | 3  | 38.0  | 886.5   |
| 14 | Kapurthala                | 20 | 574.0  | 15    | 372.0  | 3  | 40.0  | 986.0   |
| 15 | Lucknow                   | 19 | 518.0  | 20    | 296.0  | 2  | 33.0  | 847.0   |
| 16 | Pantnagar                 | 3  | 45.0   | 16    | 418.0  | 2  | 58.0  | 521.0   |
| 17 | Shahjahanpur              | 20 | 470.5  | 20    | 482.0  | 4  | 115.0 | 1067.5  |
| 18 | Uchani                    | 20 | 434.0  | 20    | 480.0  | 2  | 33.0  | 947.0   |
|    | Total                     |    | 2560.0 | 108.0 | 2378.0 | 5* | 317.0 | 5255.0  |
|    | <b>North Central Zone</b> |    |        |       |        |    |       |         |
| 19 | Bathudahari               | 20 | 342.0  | 20    | 334.0  | 1  | 15.0  | 691.0   |
| 20 | Pusa                      | 20 | 480.0  | 18    | 422.0  | 2  | 49.0  | 951.0   |
| 21 | Seorahi                   | 20 | 471.0  | 20    | 255.0  | 2  | 40.0  | 766.0   |
|    | Total                     |    | 1293.0 | 58.0  | 1011.0 | 5* | 104.0 | 2408.0  |
|    | Grand total               |    | 9128.5 | 342   | 7141.0 | 10 | 999.0 | 17268.5 |

Fluff weighing 17.27 kg of crosses made at Coimbatore was supplied to the 21 centers who had sent the list of crosses to ICAR-SBI, Coimbatore. Maximum quantity of 6.46 kg of fluff was sent to Peninsular Zone followed by North West Zone (5.26 kg). East Coast Zone and North Central and North East Zones received 3.15 and 2.41 kg of fluff respectively. Apart from these, 25 bi-parental crosses were made in National Distant Hybridization Facility at Agali and 775.1g of fluff was supplied to the five centers viz., Cuddalore, Navsari, Padegaon, Pune and Sankeshwar who had sent the list of wide crosses to be effected at SBIRC, Agali. Altogether 18.04 kg of fluff was sent to the 21 centers.

### **6.1. Receipt of fluff and seedling generation by the participating centres during 2020-21**

Among the 21 centers that received the fluff from SBI, Coimbatore, 17 centers reported the seedlings production. Six centers in Peninsular Zone and all the four in East Coast Zone, five centers in North West Zone reported the seedling production. Powerkheda was the only center from the Peninsular did not send the fluff report 2020-21. From North Centres Zone Seorahi did not send the fluff report 2020-21. All the centers except Padegaon from Peninsular Zone and Shajahanpur from North-West Zone reported more than 2,000 seedlings each. Details on seedlings generated from the crosses made at SBI, Coimbatore during 2020-21 flowering season and the progress made by the participating centers with respect to the fluff supply programme are given in following tables.

#### **6.1.1. Peninsular Zone**

### 6.1.1.1 Mandya

Seedlings generated from the fluff received during January 2021

| Particulars        | Number of crosses | Fluff weight (g) | No of seedling transplanted | No. of seedlings per gram of fluff | No. of seedlings survived | % survival   |
|--------------------|-------------------|------------------|-----------------------------|------------------------------------|---------------------------|--------------|
| Station crosses    | 20                | 469              | 2921                        | 6.23                               | 1586                      | 46.23        |
| Poly crosses       | 5                 | 49               | 310                         | 6.33                               | 182                       | 51.15        |
| General collection | 15                | 203              | 248                         | 1.22                               | 193                       | 73.66        |
| <b>Total</b>       | <b>40</b>         | <b>721</b>       | <b>3479</b>                 | <b>4.82</b>                        | <b>1961</b>               | <b>57.01</b> |

### 6.1.1.2 Navsari

Seedlings generated from the fluff received during January 2021

| Crosses            | Fluff weight (g) | No. of seedlings generated | Number of plants survived | No. of seedlings per gram of fluff |
|--------------------|------------------|----------------------------|---------------------------|------------------------------------|
| Station Crosses    | 494              | 3508                       | 3391                      | 7.10                               |
| Poly Crosses       | 46               | 376                        | 359                       | 8.17                               |
| General Crosses    | 406              | 1234                       | 1195                      | 3.04                               |
| Agali Crosses      | 130              | 266                        | 166                       | 2.05                               |
| <b>Grand Total</b> | <b>1076</b>      | <b>5384</b>                | <b>5111</b>               | <b>5.00</b>                        |

### 6.1.1.3 Pune

Seedlings generated from the fluff received during January 2021

| Particulars        | Number of crosses | Fluff weight (g) | No of seedling* | No. of seedlings per gram of fluff |
|--------------------|-------------------|------------------|-----------------|------------------------------------|
| Station crosses    | 20                | 325.0            | 785             | 2.42                               |
| Poly crosses       | 5                 | 43.0             | 322             | 7.49                               |
| General collection | 15                | 455.0            | 3521            | 7.74                               |
| Agali crosses      | 5                 | 190.30           | 126             | 0.66                               |
| <b>Total</b>       | <b>45</b>         | <b>1013.3</b>    | <b>4753</b>     | <b>4.69</b>                        |

The survived seedlings will be transplanted in field during October 2021 as a ground nursery.

### 6.1.1.4. Padegaon

Seedlings generated from the fluff received during January 2021

| Crosses            | Fluff weight (g) | No. of seedlings generated | No. of seedlings per gram of fluff |
|--------------------|------------------|----------------------------|------------------------------------|
| Station Crosses    | 452              | 493                        | 1.09                               |
| Poly Crosses       | 46               | Nil                        | -                                  |
| General Crosses    | 333              | 955                        | 2.87                               |
| Agali Crosses      | 197.5            | Nil                        | -                                  |
| <b>Grand Total</b> | <b>1028.5</b>    | <b>1448</b>                | <b>1.41</b>                        |

### 6.1.1.5. Rudrur

Seedlings generated from the fluff received during January 2021

|                 | No of crosses | Wt. of Fluff sown (g) | Number of seedlings transplanted | Number of seedlings obtained per gram of fluff | Number of Seedlings survived | % survival |
|-----------------|---------------|-----------------------|----------------------------------|--|------------------------------|------------|
| Station Crosses | 20            | 429                   | 1635                             | 3.81   | 1459                         | 89         |
| Poly Crosses    | 5             | 56                    | 401                              | 7.16   | 351                          | 88         |
| General crosses | 14            | 395                   | 2195                             | 5.56   | 2021                         | 92         |
| <b>Total</b>    | <b>39</b>     | <b>880</b>            | <b>4231</b>                      | <b>5.00</b>                                    | <b>3831</b>                  | <b>91</b>  |

### 6.1.1.6. Sankeshwar

Seedlings generated from the fluff received during January 2021

| Crosses         | No of crosses | Fluff weight (g) | No. of seedlings generated | No. of seedlings per gram of fluff |
|-----------------|---------------|------------------|----------------------------|------------------------------------|
| Station Crosses | 20            | 560.5            | 2789                       | 4.98                               |
| Poly Crosses    | 5             | 45               | 240                        | 5.33                               |
| General Crosses | 14            | 383              | 1332                       | 3.48                               |
| Agali Crosses   | 4             | 110              | 3                          | 0.03                               |
| Grand Total     | <b>43</b>     |                  | <b>4364</b>                | <b>3.97</b>                        |

### 6.1.1.7 Thiruvalla

Total no. of seedlings produced: 3416

Among the eight participating centres in Peninsular Zone, receiving fluff from ICAR-SBI, seven centres reported on the generation of seedlings. The highest rate of generation of seedlings of five per gram of fluff was reported by Navasari centres followed by Pune 4.69 seedlings per gram of fluff sown. On the whole, 27,075 seedlings were raised by these seven centres in this zone. The data on seedling generated was not provided by the Powarkheda centre.

### 6.1.2. East Coast Zone

#### 6.1.2.1. Vuyyuru

Seedlings generated from the fluff received during January 2021

| Crosses             | No | Quantity of fluff sown | No. of seedlings obtained | No. of seedlings/gram of fluff |
|---------------------|----|------------------------|---------------------------|--------------------------------|
| Station crosses     | 21 | 510                    | 4781                      | 9.37                           |
| General collections | 13 | 256                    | 2361                      | 9.22                           |
| Poly-crosses        | 14 | 242                    | 2021                      | 8.35                           |
| <b>Total</b>        |    | <b>1008</b>            | <b>9162</b>               | <b>9.09</b>                    |

### 6.1.2.2. Anakapalle

Seedlings generated from the fluff received during January 2021

| Crosses         | Quantity of fluff sown | No. of seedlings obtained | No. of seedlings/gram of fluff | No. of seedlings survived | Survival per cent |
|-----------------|------------------------|---------------------------|--------------------------------|---------------------------|-------------------|
| Station crosses | 727.70                 | 2297                      | 3.16                           | 1793                      | 78.06             |
| GCS             | 502.00                 | 7178                      | 14.30                          | 5447                      | 75.88             |
| PCS             | 208.00                 | 2042                      | 9.82                           | 1700                      | 83.25             |
| <b>Total</b>    | <b>1437.70</b>         | <b>11517</b>              | <b>8.01</b>                    | <b>8940</b>               | <b>77.62</b>      |

### 6.1.2.3. Cuddalore

Seedlings generated from the fluff received during January 2021

| Type of cross       | No.       | Wt. of fluff sown (g) | No. of seedlings transplanted | No. of seedlings obtained / g of fluff | No. of seedlings survived | % survival   |
|---------------------|-----------|-----------------------|-------------------------------|--|---------------------------|--------------|
| Bi-parental         | 26        | 611.3                 | 4688                          | 7.67                                   | 4601                      | 98.14        |
| Poly cross          | 5         | 49                    | 59                            | 1.20                                   | 55                        | 93.22        |
| General collections | 15        | 230                   | 2955                          | 12.85                                  | 3864                      | 96.92        |
| <b>Total</b>        | <b>46</b> | <b>890.3</b>          | <b>7702</b>                   | <b>8.65</b>                            | <b>7520</b>               | <b>97.64</b> |

### 6.1.2.4. Nayagarh

Seedlings generated from the fluff received during January 2021

Total no. of seedlings produced: 4938

All the four participating centres of fluff supply programme in East Coast Zone sent the crossing list to the PI (CI) and Director, ICAR-SBI, Coimbatore during October 2020. Fluff was sent to all the centres and the data on seedling raised was provided all the four centres. Highest number of seedlings was produced by Anakapalle, 11517 seedlings at the rate of 8.01 per gram of fluff followed Vuyyuru centres (9162) with overall seedlings production potential of 9.09 seedlings per gram of fluff. Altogether 33,319 seedlings were raised by these four centres in this zone.

## 6.1.3. North West Zone

### 6.1.3.1 Faridkot

Fluff was stored and sown recently.

### 6.1.3.2 Kapurthala

From 2020 crossing, fluff of 38 different crosses was received from ICAR- SBI, Coimbatore and was sown on 6<sup>th</sup> March 2021. Among the 38 cross combinations, 11 did not germinate. A total of 5700 healthy seedlings were transplanted in field, of which 4975 survived and well established.

### 6.1.3.3. Lucknow

Seedlings generated from the fluff received during January 2021

| Cross              | Number | Fluff(g) | Seedlings    |
|--------------------|--------|----------|--------------|
| Stations crosses   | 23     |          | 3718         |
| Poly-crosses       | 5      |          | 251          |
| General collection | 54     |          | 13672        |
| <b>Total</b>       |        |          | <b>17641</b> |

### 6.1.3.4 Pantnagar

Seedlings generated from the fluff received during January 2020

| Cross              | Number | Fluff(g) | Seedlings   |
|--------------------|--------|----------|-------------|
| Stations crosses   | 24     |          | 1915        |
| Poly-crosses       | 08     |          | 610         |
| General collection | 45     |          | 2605        |
| <b>Total</b>       |        |          | <b>5130</b> |

### 6.1.3.5 Shahjahanpur

Seedlings generated from the fluff received during January 2021

| Crosses             | No .      | Quantity of fluff sown | No. of seedlings obtained | No. of seedlings transplanted | No. of seedlings/gram of fluff | No. of seedlings survived | Survival per cent |
|---------------------|-----------|------------------------|---------------------------|-------------------------------|--------------------------------|---------------------------|-------------------|
| Station crosses     | 20        | 470.5                  | 587                       | 507                           | 1.25                           | 488                       | 96.25             |
| Poly-crosses        | 4         | 115.27                 | 227                       | 185                           | 1.97                           | 164                       | 88.65             |
| General Collections | 20        | 482.0                  | 456                       | 392                           | 0.95                           | 350                       | 89.28             |
| <b>Total</b>        | <b>44</b> | <b>1067.77</b>         | <b>1270</b>               | <b>1084</b>                   | <b>1.19</b>                    | <b>1002</b>               | <b>92.44</b>      |

### 6.1.3.6. Uchani

Seedlings generated from the fluff received during January 2021

| Crosses         | Quantity of fluff sown | No. of seedlings obtained | No. of seedlings/gram of fluff | No. of seedlings survived | Survival per cent |
|-----------------|------------------------|---------------------------|--------------------------------|---------------------------|-------------------|
| Station crosses | 434                    | 1177                      | 2.71                           | 871                       | 74                |
| GCS             | 480                    | 3516                      | 7.32                           | 1867                      | 53.1              |
| PCS             | 33                     | 24                        | 0.72                           | 16                        | 66.67             |
| <b>Total</b>    | <b>947</b>             | <b>4717</b>               | <b>4.98</b>                    | <b>2754</b>               | <b>58.38</b>      |



Among the six centers in North Western Zone, all the centers sent the crosses list. The seedlings generation report was provided by all the centres. Lucknow produced the highest number of seedlings (17,641) followed by Kapurthala (5700), Pantnagar (5130) and Uchani (4717). Altogether 34,458 seedlings were produced by these five centers.

#### 6.1.4. North Central and North Eastern Zone

##### 6.1.4.1. Bathuadahari

Seedlings generated from the fluff received during January 2021

| Crosses             | Quantity of fluff sown | No. of crosses | No. of seedlings obtained | No. of seedlings/gram of fluff | No. of seedlings survived | Survival per cent |
|---------------------|------------------------|----------------|---------------------------|--------------------------------|---------------------------|-------------------|
| Bi-parental Crosses | 342.0                  | 20             | 2818                      | 8.24                           | -                         | -                 |
| General Collections | 334.0                  | 20             | 2235                      | 6.69                           | -                         | -                 |
| Poly Crosses        | 15.0                   | 1              | 21                        | 1.4                            | -                         | -                 |
| <b>Total</b>        | <b>691.0</b>           |                | <b>5074</b>               | <b>7.34</b>                    | <b>-</b>                  | <b>-</b>          |

##### 6.1.4.2. Pusa

Seedlings generated from the fluff received during January 2021

| Crosses                  | Quantity of fluff sown | No. of crosses | No. of seedlings obtained | No. of seedlings/gram of fluff | No. of seedlings survived | Survival per cent |
|--------------------------|------------------------|----------------|---------------------------|--------------------------------|---------------------------|-------------------|
| Bi-parental Crosses      | 480                    | 20             | 2794                      | 5.82                           | -                         | -                 |
| General Collections      | 422                    | 18             | 2242                      | 5.31                           | -                         | -                 |
| Poly Crosses             | 49                     | 2              | 10                        | 0.20                           | -                         | -                 |
| Stored fluff             | 39                     | 2              | 86                        | 2.21                           | -                         | -                 |
| Crosses effected at Pusa | 105                    | 2              | 40                        | 0.38                           |                           |                   |
| <b>Total</b>             | <b>1095</b>            | <b>44</b>      | <b>5172</b>               | <b>4.72</b>                    |                           |                   |

Among the five participating centres in North Central and North eastern Zone, all the centres except Buralikson and Motipur sent the cross list for the crossing programme-2020-21. Fluff was not supplied to three centres. Among these centres which received the fluff during February 2021, Bethuadahari and Pusa sent the report of seedlings generation from the fluff received. Both Pusa (5172) and Bathuadahari (5074) generated almost equal number of seedlings. Both together produced 10246 seedlings.

Among the 21 centers which received the fluff from the crosses made at NHG 2020-'21, eighteen centers sent the data on seedlings generation. Altogether, 1, 05098 seedlings were raised by these participating centers from the fluff supplied by the ICAR-SBI, Coimbatore.

## 6.2 Identification and Evaluation of Proven Crosses

### 6.2.1 Peninsular Zone

#### 6.2.1.1 Pune

#### Performance of crosses in ground nursery-II (2019 batch)

| Cross Combination                          | Quantity of fluff sown | No. of seedlings produced | Total number of seedlings evaluated | HR brix % (12 M) |                  | Number of millable canes (NMC) |             | Cane diameter (cm) |                 | No. of seedlings selected |
|--|------------------------|---------------------------|-------------------------------------|------------------|------------------|--------------------------------|-------------|--------------------|-----------------|---------------------------|
|  |                        |                           |                                     | Mean             | Range            | Mean                           | Range       | Mean               | Range           |                           |
| <b>A. Station crosses</b>                  |                        |                           |                                     |                  |                  |                                |             |                    |                 |                           |
| Co 740 x CoVc 14061                        | 14.00                  | 93                        | 93                                  | 17.2             | 17.8-22.0        | 8.67                           | 7-15        | 2.63               | 2.4-3.4         | 08                        |
| Co 6204 x Co 86249                         | 9.5                    | 42                        | 42                                  | 16.3             | 12.8-20.2        | 7.78                           | 6-11        | 2.26               | 2.1-2.55        | 00                        |
| Co 7201 x Co 89003                         | 7.5                    | 40                        | 40                                  | 17.2             | 14.2-19.8        | 6.33                           | 4-9         | 2.56               | 2.4-2.85        | 00                        |
| Co 8371 x CoVc 14061                       | 15.00                  | 105                       | 105                                 | 18.6             | 16.8-21.6        | 8.67                           | 6-10        | 3.36               | 2.4-3.20        | 03                        |
| Co 8371 x CoT 8201                         | 21.5                   | 57                        | 57                                  | 17.2             | 14.2-20.8        | 8.33                           | 5-11        | 2.55               | 2.3-3.1         | 00                        |
| Co 86032 x CoVc 14061                      | 6.00                   | 56                        | 56                                  | 17.8             | 15.8-22.2        | 7.89                           | 6-15        | 2.42               | 2.1-2.9         | 00                        |
| Co 86032 x Co Se 92423                     | 7.5                    | 59                        | 59                                  | 17.2             | 14.4-21.2        | 6.78                           | 4-11        | 2.33               | 2.1-2.7         | 00                        |
| Co 92006 x Co 86249                        | 8.50                   | 59                        | 59                                  | 17.8             | 18.2-22.2        | 6.89                           | 5-10        | 2.62               | 2.4-3.2         | 04                        |
| Co 99006 x CoS 8436                        | 23.50                  | 73                        | 73                                  | 14.6             | 13.8-20.6        | 6.78                           | 4-9         | 2.26               | 2.2-2.9         | 00                        |
| Co 0238 x Co 86011                         | 8.00                   | 60                        | 60                                  | 17.6             | 14.8-21.8        | 6.33                           | 5-11        | 2.35               | 2.3-3.1         | 00                        |
| CoM 265 x CoT 8201                         | 14.50                  | 63                        | 63                                  | 15.4             | 13.8-19.4        | 7.33                           | 6-13        | 2.78               | 2.4-3.3         | 00                        |
| CoOr 3152 x Co 86011                       | 13.00                  | 00                        | 00                                  | 00               | 00               | 00                             | 00          | 00                 | 00              | 00                        |
| CoSnk 05103 x Co 89003                     | 7.00                   | 76                        | 76                                  | 16.2             | 15.8-19.8        | 6.78                           | 5-13        | 2.37               | 2.3-2.8         | 00                        |
| NB 94-545 x Co 94005                       | 24.00                  | 24                        | 24                                  | 16.8             | 16.8-20.6        | 7.67                           | 8-14        | 2.58               | 2.6-3.2         | 00                        |
| <b>Total A (24)</b>                        | <b>387.00</b>          | <b>807</b>                | <b>807</b>                          |                  |                  |                                |             |                    |                 | <b>15</b>                 |
| <b>B. Agali crosses</b>                    |                        |                           |                                     |                  |                  |                                |             |                    |                 |                           |
| IK 76-81 x Co 99006 (Eri.)                 | 10.50                  | 21                        | 21                                  | 13.4             | 15.8-18.8        | 8.33                           | 7-16        | 2.33               | 2.1-2.7         | 00                        |
| IK 76-93 x Co 775 (Eri.)                   | 12.00                  | 38                        | 38                                  | 12.2             | 10.8-17.4        | 9.67                           | 8-19        | 2.28               | 2.0-2.6         | 00                        |
| <b>Total B (10)</b>                        | <b>140.00</b>          | <b>59</b>                 | <b>59</b>                           |                  |                  |                                |             |                    |                 |                           |
| <b>D. General collection (GC)</b>          |                        |                           |                                     |                  |                  |                                |             |                    |                 |                           |
| Co 8013                                    | 5.00                   | 48                        | 48                                  | 16.2             | 14.8-18.4        | 7.67                           | 6-12        | 2.38               | 2.2-2.9         |                           |
| Co 85246                                   | 26.00                  | 44                        | 44                                  | 16.8             | 15.4-19.8        | 7.87                           | 6-14        | 2.68               | 2.6-3.8         | 01                        |
| Co 88013                                   | 18.00                  | 40                        | 40                                  | 16.4             | 14.6-19.4        | 7.67                           | 5-10        | 2.55               | 2.3-2.8         | 00                        |
| Co 89003                                   | 20.00                  | 46                        | 46                                  | 17.6             | 15.8-20.0        | 7.33                           | 7-16        | 2.54               | 2.6-3.2         | 01                        |
| Co 11001                                   | 53.00                  | 54                        | 54                                  | 18.2             | 16.6-21.8        | 6.33                           | 4-9         | 2.45               | 2.2-2.7         | 00                        |
| <b>Co 11004</b>                            | <b>62.50</b>           | <b>92</b>                 | <b>92</b>                           | <b>19.4</b>      | <b>18.4-24.2</b> | <b>8.67</b>                    | <b>5-12</b> | <b>3.08</b>        | <b>2.4-3.2</b>  | <b>01</b>                 |
| Co 0230                                    | 20.50                  | 58                        | 58                                  | 17.8             | 15.2-21.4        | 6.33                           | 6-13        | 2.33               | 2.3-2.9         | 00                        |
| Co 0233                                    | 4.00                   | 34                        | 34                                  | 16.6             | 16.8-21.2        | 7.33                           | 5-10        | 2.38               | 2.2-2.9         | 00                        |
| Co 0235                                    | 9.00                   | 38                        | 38                                  | 17.2             | 15.8-21.4        | 8.67                           | 7-12        | 2.52               | 2.4-3.0         | 00                        |
| Co 0312                                    | 7.00                   | 45                        | 45                                  | 18.2             | 16.4-21.8        | 8.33                           | 7-14        | 2.45               | 2.4-3.2         | 00                        |
| <b>CoA 13327</b>                           | <b>50.00</b>           | <b>98</b>                 | <b>98</b>                           | <b>19.4</b>      | <b>18.6-22.4</b> | <b>7.83</b>                    | <b>7-14</b> | <b>2.74</b>        | <b>2.6-3.35</b> | <b>01</b>                 |
| CoH 119                                    | 13.00                  | 36                        | 36                                  | 16.2             | 13.4-20.8        | 7.33                           | 7-14        | 2.39               | 2.2-2.8         | 00                        |
| <b>CoSnk 05103</b>                         | <b>13.00</b>           | <b>98</b>                 | <b>98</b>                           | <b>19.8</b>      | <b>18.2-23.4</b> | <b>8.42</b>                    | <b>7-14</b> | <b>2.60</b>        | <b>2.4-3.1</b>  | <b>01</b>                 |
| CoSnk 14101                                | 11.50                  | 74                        | 74                                  | 16.8             | 17.4-21.0        | 6.33                           | 8-16        | 2.79               | 2.6-3.3         | 02                        |
| CoV 89101                                  | 21.00                  | 68                        | 68                                  | 17.2             | 15.4-21.4        | 6.83                           | 5-12        | 2.68               | 2.4-3.1         | 00                        |
| CoLk 8102                                  | 30.00                  | 72                        | 72                                  | 15.8             | 13.8-19.4        | 9.33                           | 5-15        | 2.33               | 2.3-2.8         | 00                        |
| CoTl 1153                                  | 34.00                  | 31                        | 31                                  | 16.4             | 15.2-21.4        | 7.27                           | 6-11        | 2.60               | 2.4-3.2         | 00                        |
| CoVc 14062                                 | 3.50                   | 67                        | 67                                  | 16.2             | 16.4-21.6        | 6.83                           | 5-12        | 2.65               | 2.6-3.3         | 04                        |
| Bo 91                                      | 25.00                  | 75                        | 75                                  | 15.4             | 14.2-19.4        | 9.33                           | 9-14        | 2.35               | 2.4-2.8         | 00                        |
| Bo 102                                     | 32.50                  | 70                        | 70                                  | 16.8             | 16.2-20.4        | 7.44                           | 6-10        | 2.46               | 2.3-2.9         | 00                        |
| LG 08865                                   | 44.50                  | 55                        | 55                                  | 15.8             | 14.2-19.4        | 6.83                           | 5-12        | 2.56               | 2.2-2.8         | 00                        |
| <b>Total D: (45)</b>                       | <b>889.00</b>          | <b>1243</b>               | <b>1243</b>                         |                  |                  |                                |             |                    |                 | <b>11</b>                 |
| <b>E. Agali - General collection (AGC)</b> |                        |                           |                                     |                  |                  |                                |             |                    |                 |                           |
| CoSnk 03707                                | 15.00                  | 30                        | 30                                  |                  |                  |                                |             |                    |                 | 00                        |
| MS 6847                                    | 17.00                  | 36                        | 36                                  |                  |                  |                                |             |                    |                 | 00                        |
| <b>Total E</b>                             | <b>65.50</b>           | <b>66</b>                 | <b>66</b>                           |                  |                  |                                |             |                    |                 |                           |
| <b>Grand Total (A+B+C+D+E)</b>             | <b>1,508.00</b>        | <b>2,050</b>              | <b>2,050</b>                        |                  |                  |                                |             |                    |                 | <b>26</b>                 |

#### Performance of crosses in first clonal trial: (2020-21)

| Cross Combination        | No. of clones planted | HR brix % at 10 <sup>th</sup> month |             | HR brix % at 12 <sup>th</sup> month |            | Number of millable canes/ha (*000) (NMC) |               | Cane diameter (cm) |            | No. of clones selected |
|--------------------------|-----------------------|-------------------------------------|-------------|-------------------------------------|------------|--|---------------|--------------------|------------|------------------------|
|                          |                       | Mean                                | Range       | Mean                                | Range      | Mean                                     | Range         | Mean               | Range      |                        |
| Co 86002 x CoS 8436      | 03                    | 20.6                                | 19.6 - 21.8 | 22.17                               | 20.8-23.20 | 76.67                                    | 69.33 - 78.67 | 2.96               | 2.80 - 3.2 | 02                     |
| CoM 9220 x Co 775        | 01                    | 19.8                                | -           | 21.4                                | -          | 68.0                                     | -             | 3.2                | -          | 01                     |
| Co 8371 x CoH 13         | 02                    | 20.7                                |             | 22.08                               | -          | 68.36                                    | -             | 3.2                | -          | 01                     |
| CoV 89101 x CoPant 97222 | 01                    | 17.1                                |             | 18.7                                | -          | 67.27                                    | -             | 2.75               | -          | 00                     |
| Total                    | 07                    |                                     |             |                                     |            |  |               |                    |            | 04                     |

(\* quality data was not recorded due to wet field condition due to rains)

#### Performance of crosses in second clonal trial (2017 Batch):

| Cross Combination   | No. of clones planted | No. of clones with > 20 % sucrose at 240 days* | No. of clones with > 22 % sucrose at 300 days* | No. of clones with > 22 % sucrose at 360 days | No. of clones with >70 NMC /20' row | No. of clones with >2.5 cm cane thickness | No. of red-rot resistant clones         | Superiority of the cross (Sucrose/NMC/cane diameter/red rot resistance) | No. of clones selected |
|---|-----------------------|--|--|---|-------------------------------------|---|---|---|------------------------|
| Co 92013 x Co 62198   | 01                    | -  | 0  | 0   | 0                                   | 01  | -                                       |   | 00                     |
| Co 92006 x Co 89003   | 01                    | -  | 0  | 0   | 0                                   | 01  | -                                       |   | 00                     |
| Co 92006 x Co 89003   | 03                    | -  | 0  | 0   | 0                                   | 02  | CoVSI 12-1 clone-HS & one under testing | Sucrose, cane diameter  | 02                     |
| CoV 89101 PC (Co775, Co 99006, Co 86011, ISH 69, Co 94008, CoT 8201, CoV 92101, Co 93009) | 01                    | -  | 0  | 0   | 0                                   | 01  | -                                       |   | 00                     |
| Total   | 05                    | -  |  |   |                                     |   |   |   | 02                     |

(\* quality data was not recorded due to wet field condition due to rains)

#### 6.2.1.2 Padegaon

| Parentage          | Number of clones in I clonal trial | Number of clones in II clonal trial |
|--------------------|------------------------------------|-------------------------------------|
| Co 8371 x CoC 8001 | 30                                 | 4                                   |
| BO 91 x Co 62198   | 25                                 | 3                                   |
| Co 86002 x BO 130  | 54                                 | 5                                   |
| CoA 5321 GC        | 15                                 | 1                                   |
| Co 8371 PC         | 9                                  | 2                                   |
| Co98006 GC         | 7                                  | 4                                   |
| CoM 0265 x CoC 671 | 1                                  | 1                                   |
| ISH 100 x Co 62198 | 3                                  | 1                                   |
| CoV 89101 PC       | 38                                 | 4                                   |
| C 86002 x Co 87268 | 29                                 | 7                                   |
| Co 8371 PC         | 48                                 | 5                                   |
| MS 6847 x Co 86011 | 15                                 | 3                                   |

|                          |            |           |
|--------------------------|------------|-----------|
| C 8353 x Co 6037         | 11         | 4         |
| CoM 0265 GC              | 7          | 2         |
| 86 V 46 PC               | 12         | 2         |
| CoA7602 PC               | 4          | 1         |
| Co 8371 x Co 97015       | 40         | 1         |
| Co 88007 x ISH 70        | 7          | 1         |
| Co 92006 x Co 775        | 15         | 2         |
| Co 98008 x Co Pant 97222 | 15         | 2         |
| <b>Total</b>             | <b>494</b> | <b>61</b> |

### 6.2.3 Thiruvalla

Performance of crosses in ground nursery (2019-20 series)

| Cross combination     | Quantity of fluff sown | No of seedlings produced | Total number of seedlings evaluated | HR brix (%) |       |      | Number of millable canes (NMC) |       |      | Cane diameter (cm) |       |      | No. of seedlings selected |
|-----------------------|------------------------|--------------------------|-------------------------------------|-------------|-------|------|--------------------------------|-------|------|--------------------|-------|------|---------------------------|
|                       |                        |                          |                                     | Mean        | Range |      | Mean                           | Range |      | Mean               | Range |      |                           |
|                       |                        |                          |                                     |             | Min   | Max  |                                | Min   | Max  |                    | Min   | Max  |                           |
| Co 0238 X Co 94005    | 15                     | 174                      | 128                                 | 16.20       | 15.0  | 20.0 | 11.91                          | 7     | 22   | 2.53               | 1.6   | 3.5  | 14                        |
| Co 0238 X Co 94008    | 12                     | 27                       | 9                                   | 16.36       | 15.0  | 18.0 | 12.22                          | 9     | 16   | 2.53               | 2.20  | 2.90 | 1                         |
| Co 06022 X ISH 41     | 25                     | 75                       | 45                                  | 17.12       | 15.0  | 19.5 | 10.29                          | 6     | 18   | 2.59               | 2.00  | 3.80 | 17                        |
| Co 06022 X 97 R 401   | 29                     | 15                       | 5                                   | 16.40       | 15.0  | 17.5 | 10.80                          | 7     | 14   | 2.54               | 2.30  | 2.70 | 5                         |
| Co 2000-10 X Co 97009 | 24                     | 177                      | 118                                 | 16.41       | 15.0  | 19.2 | 9.03                           | 5     | 18   | 2.13               | 1.30  | 2.90 | 15                        |
| Co 2000-10 X CoC 8201 | 24                     | 122                      | 83                                  | 16.28       | 15.0  | 20.0 | 11.84                          | 8     | 22   | 2.26               | 1.30  | 3.00 | 6                         |
| Co 8371 X CoSe 92423  | 27                     | 184                      | 118                                 | 16.29       | 15.0  | 20.5 | 12.69                          | 8     | 25   | 2.30               | 1.30  | 3.50 | 13                        |
| Co 86032 X Co 1148    | 43                     | 17                       | 6                                   | 16.67       | 15.0  | 19.0 | 9.33                           | 7     | 11   | 2.23               | 1.70  | 2.50 | 1                         |
| Co 94012 X ISH 41     | 28                     | 103                      | 58                                  | 16.25       | 15.0  | 20.0 | 11.98                          | 8     | 22   | 2.49               | 1.60  | 3.30 | 5                         |
| CoC 671 X Co 94008    | 14                     | 83                       | 52                                  | 16.74       | 15.0  | 20.5 | 14.56                          | 10    | 24   | 2.63               | 1.70  | 3.20 | 5                         |
| CoC 671 X ISH 229     | 20                     | 223                      | 204                                 | 16.44       | 15.0  | 21.0 | 15.22                          | 10    | 29   | 2.49               | 1.30  | 3.80 | 13                        |
| CoTI 1153 X ISH 229   | 13                     | 44                       | 26                                  | 16.34       | 15.0  | 19.2 | 20.16                          | 17    | 24   | 2.27               | 1.60  | 3.20 | 2                         |
| CoTI 1153 X Co 8341   | 19                     | 18                       | 16                                  | 16.52       | 16.0  | 18.0 | 13.18                          | 9     | 17   | 2.37               | 1.90  | 2.90 | 1                         |
| CoVc 14062 X CoT 8201 | 24                     | 134                      | 94                                  | 16.43       | 15.0  | 19.3 | 13.32                          | 10    | 30   | 2.46               | 1.60  | 3.50 | 10                        |
| CoVc 14062 X Co 94005 | 16                     | 76                       | 49                                  | 16.83       | 15.0  | 19.0 | 15.88                          | 11    | 25.0 | 2.16               | 1.70  | 3.20 | 49                        |
| CoVc 14062 X Co 775   | 16                     | 228                      | 196                                 | 16.36       | 15.0  | 21.2 | 15.92                          | 11    | 28   | 2.23               | 1.30  | 6.10 | 9                         |

\* Observations on seedlings with low HR brix were not recorded.

II. Performance of crosses in first clonal trial (2016-17 series) Trial is in first clonal stage

| Cross combination      | No of clones planted | HR brix at 12 <sup>th</sup> month |       |      | Number of millable canes (NMC) |       |     | Cane diameter (cm) |       |     | No. of clones selected |
|------------------------|----------------------|-----------------------------------|-------|------|--------------------------------|-------|-----|--------------------|-------|-----|------------------------|
|                        |                      | Mean                              | Range |      | Mean                           | Range |     | Mean               | Range |     |                        |
|                        |                      |                                   | Min   | Max  |                                | Min   | Max |                    | Min   | Max |                        |
| ISH 100 X CoC 8001     | 0                    |                                   |       |      |                                |       |     |                    |       |     |                        |
| Co 2000-10 X Co 1148   | 20                   | 18.4                              | 17.0  | 20.2 | 17.1                           | 11    | 24  | 2.5                | 2.1   | 3.2 | 2                      |
| CoV 89101 X Co 775     | 20                   | 18.3                              | 17.2  | 19.2 | 16.2                           | 11    | 27  | 2.5                | 1.8   | 3.3 | 0                      |
| CoTI 1153 X Co 1148    | 0                    |                                   |       |      |                                |       |     |                    |       |     |                        |
| Co 98010 X Co 97015    | 11                   | 18.6                              | 17.2  | 19.5 | 16.5                           | 12    | 21  | 2.6                | 2.2   | 3.2 | 0                      |
| CoN 05072 X CoC 8001   | 10                   | 18.6                              | 17.7  | 20.2 | 15.4                           | 13    | 21  | 2.8                | 2.4   | 3.2 | 1                      |
| CoC 90063 X Co 8340    | 26                   | 18.7                              | 17.7  | 20.5 | 18.0                           | 11    | 23  | 2.7                | 2.1   | 3.3 | 2                      |
| Co 94007 self          | 0                    |                                   |       |      |                                |       |     |                    |       |     |                        |
| Co 6304 X CoA 7602     | 7                    | 20.0                              | 18.5  | 20.8 | 16.0                           | 12    | 22  | 2.7                | 2.0   | 3.4 | 5                      |
| Co Or 03152 X Co 97015 | 9                    | 19.0                              | 18.0  | 20.5 | 16.4                           | 13    | 24  | 2.5                | 1.9   | 3.2 | 2                      |

|                       |    |      |      |      |      |    |    |     |     |     |   |
|-----------------------|----|------|------|------|------|----|----|-----|-----|-----|---|
| Co 2000-10 X CoA 7802 | 33 | 18   | 17.3 | 21.2 | 16   | 10 | 27 | 2.6 | 2.0 | 3.2 | 4 |
| Co 92007 X Co 775     | 32 | 18.6 | 17.0 | 21.2 | 18.4 | 13 | 24 | 2.5 | 2.0 | 3.4 | 5 |
| Co 98006 X CoT 8201   | 13 | 18.3 | 17.2 | 20.8 | 19.3 | 15 | 24 | 2.6 | 2.0 | 3.5 | 1 |
| Co 88025 X Co 775     | 8  | 18.4 | 17.2 | 19.3 | 20.3 | 18 | 23 | 2.4 | 2.1 | 2.8 | 0 |
| Ms 68/47 X CoT 8201   | 9  | 17.7 | 17.0 | 18.8 | 18.9 | 14 | 22 | 2.7 | 2.2 | 3.2 | 0 |
| Co 2000-10 X Co 775   | 10 | 18.8 | 17.3 | 21.3 | 20.4 | 17 | 24 | 2.8 | 2.3 | 3.5 | 2 |
| CoC 671 X Co 88013    | 6  | 18.8 | 16.8 | 21.5 | 19.0 | 16 | 22 | 2.6 | 2.1 | 3.4 | 3 |

Observation on HR brix at 8<sup>th</sup> and 10<sup>th</sup> month were not reported

Performance of crosses in second clonal trial (2016 -17)

| Cross combination     | No. of clones planted | No. of clones with >20% sucrose at 240 days | No. of clones with >22% sucrose at 300 days | No. of clones with >22% sucrose at 360 days | No. of clones with >70 NMC/20' row | No. of clones with >2.5 cm cane thickness | No. of red rot resistant clones | Superiority of the cross (Sucrose/NMC/cane dia/red rot resistance) | No. of clones selected |
|-----------------------|-----------------------|---|---|---|------------------------------------|---|---------------------------------|--|------------------------|
| ISH 100 x CoC 8001    |                       |   |   |   |                                    |   |                                 |  |                        |
| Co 2000-10 x Co 1148  | 2                     |   |   | 0   | 0                                  | 0   |                                 |  | Nil                    |
| CoV 89101 x Co 775    |                       |   |   |   |                                    |   |                                 |  |                        |
| CoT1 1153 x Co 1148   |                       |   |   |   |                                    |   |                                 |  |                        |
| Co 98010 x Co 97015   |                       |   |   |   |                                    |   |                                 |  |                        |
| CoN05072 x CoC 8001   | 1                     |   |   | 0   | 0                                  | 0   |                                 |  | Nil                    |
| CoC 90063 x Co 8340   | 2                     |   |   | 0   | 0                                  | 0   |                                 |  | Nil                    |
| Co94007 self          |                       |   |   |   |                                    |   |                                 |  |                        |
| Co6304 x CoA 7602     | 5                     |   |   | 0   | 0                                  | 1   |                                 |  | Nil                    |
| CoOr 03152 x Co 97015 | 2                     |   |   | 0   | 0                                  | 0   |                                 |  | Nil                    |
| Co2000-10 x CoA 7802  | 4                     |   |   | 0   | 0                                  | 0   |                                 |  | Nil                    |
| Co 92007 x Co775      | 5                     |   |   | 0   | 0                                  | 0   |                                 |  | Nil                    |
| Co98006 x CoT 8201    | 1                     |   |   | 0   | 0                                  | 0   |                                 |  | Nil                    |
| Co 88025 x Co 775     |                       |   |   |   |                                    |   |                                 |  |                        |
| Ms 68/47 x CoT 8201   |                       |   |   |   |                                    |   |                                 |  |                        |
| Co 2000-10 x Co 775   | 2                     |   |   | 0   | 0                                  | 0   |                                 |  | Nil                    |
| CoC 671 x Co 88013    | 3                     |   |   | 0   | 0                                  | 0   |                                 |  | Nil                    |

## 6.2.2. East Coast Zone

### 6.2.2.1 Anakapalle

Performance of crosses in ground nursery

| Name of the Cross  | No. of selections | No. of canes/clump | HR Brix (%) | Cane length (m) | Cane girth (cm) | Single cane weight (kg) |
|--------------------|-------------------|--------------------|-------------|-----------------|-----------------|-------------------------|
| Co11015X Co94012   | 20                | 4.20               | 25.22       | 2.65            | 2.30            | 1.03                    |
| CoA11323GC         | 20                | 4.25               | 25.36       | 2.42            | 2.18            | 1.01                    |
| Co86032X CoSe92423 | 20                | 3.78               | 24.60       | 2.62            | 2.38            | 1.02                    |
| CoA93081X CoC671   | 8                 | 4.13               | 25.10       | 2.42            | 2.25            | 1.04                    |
| CoA12323XCo86032   | 1                 | 3.00               | 26.00       | 2.30            | 2.43            | 1.03                    |
| CoA 13327X XBO102  | 2                 | 3.50               | 25.60       | 2.42            | 2.22            | 1.01                    |
| CoA 05321X ISH229  | 7                 | 4.00               | 25.80       | 2.10            | 2.00            | 1.00                    |
| BO91X Co62198      | 9                 | 4.56               | 25.56       | 2.30            | 2.08            | 1.02                    |
| 93V297 X 83R23     | 6                 | 3.83               | 23.72       | 2.17            | 2.04            | 1.00                    |
| Co88081GC          | 10                | 3.80               | 23.75       | 2.08            | 2.34            | 1.02                    |
| CoA 96081GC        | 11                | 5.36               | 24.73       | 2.10            | 2.34            | 1.02                    |

|                     |            |      |       |       |      |      |
|---------------------|------------|------|-------|-------|------|------|
| CoA 10321GC         | 15         | 4.54 | 23.76 | 2.18  | 2.00 | 1.00 |
| 70A5 GC             | 5          | 4.40 | 22.50 | 2.26  | 2.00 | 1.02 |
| 69A251GC            | 3          | 3.33 | 22.30 | 2.20  | 2.10 | 1.05 |
| Co 0235GC           | 3          | 2.67 | 21.60 | 2.42  | 2.08 | 1.01 |
| CoA11326GC          | 2          | 2.50 | 22.60 | 2.30  | 2.00 | 1.02 |
| CoA12322Gc          | 4          | 5.25 | 23.66 | 2.20  | 2.10 | 1.03 |
| CoA06321X ISH12     | 2          | 4.50 | 25.60 | 2.18  | 2.20 | 1.00 |
| MS6847X ISH229      | 6          | 2.67 | 22.00 | 2.23  | 2.40 | 1.00 |
| Co775GC             | 11         | 4.64 | 21.68 | 2.43  | 2.00 | 1.00 |
| Co1148GC            | 12         | 2.67 | 21.88 | 2.43  | 2.00 | 1.00 |
| CoA99081GC          | 8          | 4.63 | 23.80 | 2.30  | 2.02 | 1.00 |
| 74A95GC             | 2          | 3.50 | 24.50 | 2.18  | 2.30 | 1.00 |
| Co8353XCo775        | 13         | 5.33 | 21.67 | 2.08  | 2.22 | 1.03 |
| CoA09321GC          | 4          | 3.25 | 24.00 | 2.30  | 2.12 | 1.00 |
| Co8338X CoSe92423   | 2          | 4.00 | 24.00 | 2.30  | 2.12 | 1.01 |
| CoC671XCoPant 97222 | 3          | 3.25 | 24.00 | 2.25  | 2.10 | 1.02 |
| CoA11324X Co62198   | 1          | 4.00 | 24.00 | 2.25  | 2.10 | 1.00 |
| CoA7602GC           | 8          | 4.25 | 23.60 | 2.26  | 2.02 | 1.02 |
| CoC24GC             | 8          | 5.26 | 25.60 | 2.20  | 2.00 | 1.02 |
| Co0331X BO128       | 3          | 4.00 | 26.00 | 2.18  | 2.00 | 1.00 |
| ISH100XNCO310       | 1          | 3.00 | 25.60 | 2.22  | 2.00 | 1.00 |
| CoA93081 X CoC671   | 27         | 3.39 | 24.20 | 2.18  | 2.03 | 1.00 |
| 97R129GC            | 21         | 4.08 | 23.60 | 2.08  | 2.22 | 1.03 |
| CoA12323GC          | 2          | 3.20 | 23.80 | 2.40  | 2.00 | 1.00 |
| CoA07321GC          | 13         | 5.31 | 23.60 | 23.32 | 2.00 | 1.00 |
| CoA11324GC          | 18         | 4.28 | 24.60 | 2.08  | 2.02 | 1.00 |
| CoA 11324X NCO310   | 1          | 3.00 | 25.00 | 2.10  | 2.00 | 1.00 |
| 74A95x CoC671       | 1          | 3.00 | 22.80 | 2.18  | 2.04 | 1.01 |
| Co86032XC81615      | 2          | 3.22 | 24.00 | 2.06  | 2.00 | 1.00 |
| 69A591GC            | 4          | 4.50 | 24.00 | 2.10  | 2.15 | 1.00 |
| CoA13321X CoH13     | 3          | 3.33 | 24.00 | 2.18  | 2.12 | 1.00 |
| CoA12323X CoC671    | 1          | 3.00 | 24.00 | 2.15  | 2.12 | 1.00 |
| CoA13325X Co1158    | 4          | 5.80 | 23.00 | 2.10  | 2.00 | 1.00 |
| CP52-68PC           | 3          | 4.20 | 23.60 | 2.10  | 2.02 | 1.00 |
| CoV89101 PC         | 2          | 3.18 | 22.00 | 2.02  | 2.00 | 1.02 |
| Co8371PC            | 10         | 4.20 | 24.00 | 2.00  | 2.12 | 1.00 |
| CoA7602PC           | 4          | 2.80 | 24.60 | 2.12  | 2.00 | 1.01 |
| CoA133327GC         | 14         | 4.43 | 24.00 | 2.00  | 2.08 | 1.00 |
| CoC671PC            | 7          | 4.29 | 25.00 | 2.18  | 2.00 | 1.00 |
| 69A591GC            | 4          | 3.50 | 25.00 | 2.00  | 2.14 | 1.02 |
| Co86002 PC          | 8          | 3.60 | 25.00 | 2.18  | 1.99 | 1.00 |
| CoV94101PC          | 14         | 3.44 | 24.40 | 2.10  | 2.00 | 1.00 |
| <b>Grand Total</b>  | <b>396</b> |      |       |       |      |      |

#### Performance of selected clones in first clonal trial

| SNo | Clone    | Pedigree             | NMC<br>(000s/ha) | Cane<br>Yield (<br>t/ha) | HR<br>Brix<br>% | Brix<br>Yield(t/ha) |
|-----|----------|----------------------|------------------|--------------------------|-----------------|---------------------|
| 1.  | 2020A 01 | CoC 90063 x CoA 7602 | 125.55           | 150.66                   | 21.00           | 31.64               |
| 2.  | 2020A 02 | CoC 90063 x CoA 7602 | 111.57           | 139.46                   | 25.20           | 35.14               |

|     |          |                           |        |        |       |       |
|-----|----------|---------------------------|--------|--------|-------|-------|
| 3.  | 2020A03  | CoC 90063 x CoA 7602      | 130.67 | 156.80 | 22.00 | 34.50 |
| 4.  | 2020A0 4 | CoC 90063 x CoA 7602      | 120.65 | 132.71 | 20.00 | 26.54 |
| 5.  | 2020A 05 | CoC 90063 x CoA 7602      | 123.85 | 146.14 | 20.80 | 30.40 |
| 6.  | 2020A 06 | CoC 90063 x CoA 7602      | 129.75 | 145.00 | 21.80 | 31.61 |
| 7.  | 2020A 10 | ISH 100 x CoA 7602        | 128.44 | 157.98 | 25.00 | 39.49 |
| 8.  | 2020A 12 | ISH 100 x CoA 7602        | 128.54 | 143.96 | 22.80 | 32.82 |
| 9.  | 2020A 11 | ISH 100 x CoA 7602        | 125.44 | 153.03 | 20.40 | 31.22 |
| 10. | 2020A 13 | ISH 100 x CoA 7602        | 120.35 | 138.40 | 22.60 | 31.28 |
| 11. | 2020A 15 | Bo 91 x Co 62198          | 131.67 | 150.10 | 22.00 | 33.02 |
| 12. | 2020A 16 | Bo 91 x Co 62198          | 135.78 | 128.62 | 20.80 | 26.75 |
| 13. | 2020A 17 | Bo 91 x Co 62198          | 118.53 | 143.42 | 20.00 | 28.68 |
| 14. | 2020A 19 | Bo 91 x Co 62198          | 131.78 | 155.50 | 24.80 | 38.56 |
| 15. | 2020A 20 | Bo 91 x Co 62198          | 118.5  | 133.90 | 23.60 | 31.60 |
| 16. | 2020A 21 | Bo 91 x Co 62198          | 128.45 | 151.84 | 20.00 | 30.36 |
| 17. | 2020A 22 | Bo 91 x Co 62198          | 122.34 | 150.47 | 24.80 | 37.32 |
| 18. | 2020A 23 | Bo 91 x Co 62198          | 130.4  | 149.52 | 20.40 | 30.50 |
| 19. | 2020A 24 | Bo 91 x Co 62198          | 119.5  | 145.79 | 23.00 | 33.53 |
| 20. | 2020A 25 | Co 8353 x Co 62198        | 125.25 | 146.54 | 23.00 | 33.70 |
| 21. | 2020A 26 | Co 8353 x Co 62198        | 122.34 | 149.25 | 22.60 | 33.73 |
| 22. | 2020A 27 | Co 8353 x Co 62198        | 121    | 143.60 | 21.60 | 30.15 |
| 23. | 2020A 28 | Co 8353 x Co 62198        | 120.21 | 132.75 | 21.60 | 28.67 |
| 24. | 2020A 30 | Co 8353 x Co 62198        | 124.22 | 125.58 | 20.80 | 26.12 |
| 25. | 2020A 34 | Co 8353 x Co 62198        | 124.58 | 135.89 | 19.60 | 26.63 |
| 26. | 2020A 36 | Co 8353 x Co 62198        | 119.89 | 121.65 | 20.00 | 24.33 |
| 27. | 2020A 37 | Co 8353 x Co 62198        | 125.45 | 137.85 | 21.40 | 29.49 |
| 28. | 2020A38  | Co 8353 x Co 62198        | 128.57 | 134.59 | 24.60 | 33.10 |
| 29. | 2020A 40 | Co 8353 x Co 62198        | 130.24 | 133.72 | 21.60 | 28.88 |
| 30. | 2020A 42 | Co 8353 x Co 62198        | 124.45 | 122.00 | 24.80 | 30.25 |
| 31. | 2020A44  | Co 8353 x Co 62198        | 123.55 | 143.31 | 19.80 | 28.38 |
| 32. | 2020A 47 | Co 1158 x Bo 91           | 125.65 | 145.25 | 24.80 | 36.02 |
| 33. | 2020A 50 | Co 1158 x Bo 91           | 130.50 | 137.45 | 21.50 | 29.55 |
| 34. | 2020A51  | Co 1158 x Bo 91           | 123.45 | 123.45 | 22.60 | 27.90 |
| 35. | 2020A 52 | Co 1158 x Bo 91           | 123.55 | 143.32 | 19.80 | 28.38 |
| 36. | 2020A53  | Co 1158 x Bo 91           | 130.67 | 146.80 | 22.00 | 32.30 |
| 37. | 2020A54  | Co 1158 x Bo 91           | 132.00 | 141.60 | 19.80 | 28.04 |
| 38. | 2020A 55 | CoA 92081 x Co 94008      | 135.33 | 145.92 | 22.00 | 32.10 |
| 39. | 2020A 57 | CoA 92081 x Co 94008      | 132.00 | 138.40 | 19.60 | 27.13 |
| 40. | 2020A 58 | CoA 92081 x Co 94008      | 127.67 | 127.67 | 20.20 | 25.79 |
| 41. | 2020A61  | CoA 92081 x Co Pant 97222 | 131.66 | 140.40 | 19.40 | 27.24 |
| 42. | 2020A 62 | CoA 92081 x Co Pant 97222 | 130.25 | 125.20 | 22.60 | 28.30 |
| 43. | 2020A 63 | CoA 92081 x Co Pant 97222 | 125.56 | 139.90 | 19.80 | 27.70 |
| 44. | 2020A 64 | CoA 92081 x Co Pant 97222 | 128.57 | 134.59 | 24.60 | 33.11 |

|     |           |                        |        |        |       |       |
|-----|-----------|------------------------|--------|--------|-------|-------|
| 45. | 2020A 69  | Co 86249 x 85 R 186    | 128.55 | 145.00 | 21.80 | 31.61 |
| 46. | 2020A 70  | CoA 11323 x Co 62198   | 125.65 | 145.25 | 24.80 | 36.02 |
| 47. | 2020A 71  | CoA 11323 x Co 62198   | 131.67 | 134.00 | 22.00 | 29.48 |
| 48. | 2020A 72  | CoA 11323 x Co 62198   | 118.50 | 123.33 | 23.60 | 29.11 |
| 49. | 2020A 73  | CoA 11323 x Co 62198   | 119.50 | 125.45 | 23.00 | 28.85 |
| 50. | 2020A75   | CoA 11323 x Co 62198   | 122.34 | 140.47 | 24.80 | 34.84 |
| 51. | 2020A 79  | CoA 11323 x Co 62198   | 119.35 | 122.42 | 20.00 | 24.48 |
| 52. | 2020A 82  | CoA 10321 x CoSe 92423 | 118.44 | 123.83 | 22.00 | 27.24 |
| 53. | 2020A 83  | CoA 11324 x CoH 70     | 123.45 | 122.34 | 21.60 | 26.43 |
| 54. | 2020A 87  | CoA 11324 x CoH 70     | 125.85 | 145.99 | 20.00 | 29.20 |
| 55. | 2020A 91  | CoA 11324 x Bo 154     | 126.46 | 144.16 | 20.40 | 29.41 |
| 56. | 2020A 93  | CoA 11324 x Bo 154     | 126.67 | 142.25 | 20.00 | 28.45 |
| 57. | 2020A95   | CoA 11324 x Bo 154     | 115.86 | 144.83 | 20.80 | 30.12 |
| 58. | 2020A97   | CoA 11324 x Bo 154     | 116.91 | 111.06 | 20.60 | 22.88 |
| 59. | 2020A98   | CoA 11324 x Bo 154     | 124.87 | 137.36 | 23.80 | 32.69 |
| 60. | 2020A 102 | CoA 11324 x Bo 154     | 125.00 | 142.63 | 21.30 | 30.38 |
| 61. | 2020A 103 | CoA 11324 x Bo 154     | 122.33 | 128.00 | 21.80 | 27.90 |
| 62. | 2020 A104 | CoA 11324 x Bo 154     | 118.50 | 129.00 | 22.40 | 28.90 |
| 63. | 2020A 106 | CoA 11324 x Bo 154     | 120.33 | 136.21 | 23.80 | 32.42 |
| 64. | 2020 A108 | Co 98008 x Co 8353     | 127.66 | 128.94 | 20.20 | 26.05 |
| 65. | 2020A 109 | Co 98008 x Co 8353     | 125.50 | 135.50 | 21.60 | 29.27 |
| 66. | 2020A 111 | CoA 13327 x CoS 96260  | 124.45 | 132.00 | 24.80 | 32.74 |
| 67. | 2020A 115 | CoA 13327 x CoS 96260  | 127.33 | 142.61 | 20.80 | 29.66 |
| 68. | 2020A 120 | CoA 13327 x CoS 96260  | 126.00 | 133.33 | 20.40 | 27.20 |
| 69. | 2020A 123 | CoA 13327 x CoS 96260  | 122.54 | 138.00 | 20.80 | 28.70 |
| 70. | 2020A 124 | CoA 13327 x CoS 96260  | 120.00 | 136.80 | 20.00 | 27.36 |
| 71. | 2020A 135 | CoA 13327 x CoS 96275  | 131.78 | 145.67 | 24.80 | 36.13 |
| 72. | 2020A 137 | CoA 13327 x CoS 96275  | 122.34 | 149.25 | 22.60 | 33.73 |
| 73. | 2020A 138 | CoA 13327 x CoS 96275  | 121.33 | 139.00 | 21.80 | 30.30 |
| 74. | 2020A 141 | CoA 13327 x CoS 96275  | 120.34 | 138.39 | 22.00 | 30.45 |
| 75. | 2020A 148 | CoA 13327 x CoS 96275  | 129.00 | 145.18 | 21.80 | 31.65 |
| 76. | 2020A 195 | Co2000-10 PC           | 123.00 | 125.00 | 21.00 | 26.25 |
| 77. | 2020A 196 | Co2000-10 PC           | 120.21 | 130.00 | 21.60 | 28.08 |
| 78. | 2020A 197 | Co2000-10 PC           | 125.50 | 139.31 | 21.00 | 29.25 |
| 79. | 2020A 198 | Co2000-10 PC           | 130.22 | 128.45 | 22.60 | 29.03 |
| 80. | 2020A 202 | Co2000-10 PC           | 124.22 | 135.00 | 20.80 | 28.08 |
| 81. | 2020A 204 | Co 86032 x Co 11015    | 123.00 | 121.16 | 24.80 | 30.05 |
| 82. | 2020A 205 | Co 86032 x Co 11015    | 126.67 | 146.93 | 20.60 | 30.27 |
| 83. | 2020A 207 | Co 86032 x Co 11015    | 115.35 | 131.50 | 25.00 | 32.87 |
| 84. | 2020A 209 | Co 86032 x Co 11015    | 130.44 | 137.66 | 22.80 | 31.39 |
| 85. | 2020A 213 | Co 86032 x Co 11015    | 124.25 | 139.16 | 22.80 | 31.73 |
| 86. | 2020A 216 | Co 86032 x Co 11015    | 126.00 | 142.46 | 22.40 | 31.91 |



|     |           |                     |        |        |       |       |
|-----|-----------|---------------------|--------|--------|-------|-------|
| 87. | 2020A 217 | Co 86032 x Co 11015 | 128.00 | 137.44 | 25.00 | 34.36 |
| 88. | 2020A 218 | Co 86032 x Co 11015 | 130.24 | 148.47 | 22.80 | 33.85 |
| 89. | 2020A 225 | Co8371 PC           | 128.33 | 146.30 | 20.60 | 30.14 |
| 90. | 2020A 255 | Co1148 GC           | 120.35 | 145.62 | 20.00 | 29.12 |
| 91. | 2020A 282 | Co 94008 GC         | 125.34 | 128.47 | 19.80 | 25.44 |
| 92. | 2020A 296 | Co 94008 GC         | 128.67 | 145.78 | 19.80 | 28.87 |
| 93. | 2020A 333 | 2003V 46 GC         | 129.33 | 132.25 | 22.50 | 29.76 |
|     | 83V 15    | Standard            | 127.75 | 102.2  | 20.50 | 20.95 |
|     | 87A298    | Standard            | 130.5  | 117.45 | 21.50 | 25.25 |

#### Performance of crosses in second clonal trial

| S.No | Clone     | Pedigree              | NMC(00<br>Os/ha) | Cane<br>Yield(t<br>/ha) | Sucros<br>e % | CCS<br>% | CCS<br>Yield(t/ha<br>) |
|------|-----------|-----------------------|------------------|-------------------------|---------------|----------|------------------------|
| 1    | 2019A 254 | CoH 119XLG07482       | 126.35           | 135.00                  | 20.08         | 13.76    | 18.58                  |
| 2    | 2019A 59  | BO91GC                | 121.63           | 125.33                  | 21.12         | 14.88    | 18.64                  |
| 3    | 2019A 57  | BO91GC                | 128.00           | 135.67                  | 18.78         | 13.12    | 17.79                  |
| 4    | 2019A 10  | CoH92GC               | 120.00           | 125.67                  | 19.18         | 13.86    | 17.41                  |
| 5    | 2019A 54  | BO91GC                | 121.88           | 128.00                  | 20.18         | 14.00    | 17.92                  |
| 6    | 2019A 271 | CoS92268XCoA10321     | 120.00           | 125.00                  | 20.00         | 13.98    | 17.48                  |
| 7    | 2019A 215 | CoH 76X Co97015       | 124.38           | 126.50                  | 20.00         | 13.88    | 17.00                  |
| 8    | 2019A 250 | CoS8436XCo52198       | 118.13           | 121.88                  | 19.54         | 13.09    | 15.95                  |
| 9    | 2019A 188 | CoT8201X CoSe92423    | 121.00           | 131.88                  | 20.19         | 14.02    | 18.49                  |
| 10   | 2019A 189 | CoT8201X CoSe92423    | 118.25           | 120.00                  | 19.16         | 13.85    | 16.06                  |
| 11   | 2019A 156 | Co06035X Co88013      | 118.13           | 120.75                  | 20.18         | 14.03    | 16.94                  |
| 12   | 2019A 180 | Co88025 X Co H7803    | 121.00           | 120.50                  | 19.32         | 13.30    | 16.90                  |
| 13   | 2019A187  | CoT8201X CoSe92423    | 125.00           | 128.33                  | 19.00         | 13.20    | 16.94                  |
| 14   | 2019A166  | CoA13327X Co1148      | 121.06           | 126.67                  | 19.30         | 13.80    | 17.48                  |
| 15   | 2019A163  | CoA13327X Co1148      | 120.67           | 133.36                  | 19.60         | 13.92    | 18.56                  |
| 16   | 2019A36   | CoM6806GC             | 118.23           | 125.67                  | 20.00         | 14.02    | 17.62                  |
| 17   | 2019A178  | Co88025 X Co H7803    | 121.33           | 126.67                  | 19.56         | 13.16    | 16.67                  |
| 18   | 2019A255  | CoH 119X LG 07482     | 124.67           | 128.33                  | 19.22         | 13.24    | 17.00                  |
| 19   | 2019A162  | C79218X Co Pant 90223 | 123.33           | 130.67                  | 19.00         | 13.18    | 17.22                  |
| 20   | 2019A116  | CoM6806X ISH69        | 119.67           | 125.67                  | 20.00         | 13.89    | 17.46                  |
| 21   | 2019A149  | C81615 GC             | 120.33           | 132.33                  | 19.54         | 13.12    | 17.36                  |
| 22   | 2019A160  | C79218X Co Pant 90223 | 118.33           | 126.67                  | 19.50         | 13.20    | 16.72                  |
| 23   | 2019A202  | CoA13327X Co1148      | 118.00           | 126.67                  | 19.20         | 13.20    | 16.72                  |
| 24   | 2019A41   | CoM6806GC             | 119.67           | 124.67                  | 19.40         | 13.53    | 16.87                  |
| 25   | 2019A94   | CoM6806X ISH69        | 121.33           | 123.33                  | 19.52         | 13.60    | 16.77                  |
| 26   | 2019A117  | CoM6806X ISH69        | 122.67           | 126.67                  | 19.00         | 13.20    | 16.72                  |
| 27   | 2019A299  | CoC671X CoSe92423     | 123.67           | 126.67                  | 20.06         | 14.00    | 17.73                  |
| 28   | 2019A249  | CoS8436X Co62198      | 118.33           | 122.56                  | 19.50         | 13.42    | 16.44                  |
| 29   | 2019A66   | Co89036 GC            | 119.67           | 123.67                  | 20.56         | 14.34    | 17.73                  |
| 30   | 2019A73   | Co89036 GC            | 120.67           | 124.67                  | 21.00         | 14.67    | 18.29                  |
| 31   | 2019A10   | CoH92GC               | 118.33           | 121.33                  | 20.52         | 14.30    | 17.35                  |
| 32   | 2019A134  | C81615 GC             | 121.33           | 120.33                  | 19.23         | 13.30    | 16.00                  |
| 33   | 2019A8    | CoH92GC               | 122.33           | 125.67                  | 19.10         | 13.62    | 17.11                  |
| 34   | 2019A271  | CoS92268X CoA10321    | 126.67           | 128.33                  | 20.22         | 13.88    | 17.25                  |
| 35   | 87A298(C) | Co7704X coC671        | 118.67           | 118.00                  | 20.00         | 13.81    | 16.29                  |
| 36   | 83V15(C)  | CoC671X Co6806        | 116.67           | 116.98                  | 20.32         | 13.28    | 15.54                  |

### 6.2.2.2 Cuddalore

#### Performance of crosses in ground nursery (2020-21)

| Cross combination         | Quantity of fluff sown (g) | No. of seedlings produced | Total number of seedlings evaluated | HR brix (%) |             | Number of millable canes (NMC) |       | Cane diameter (cm) |         | No. of seedlings selected |
|---------------------------|----------------------------|---------------------------|-------------------------------------|-------------|-------------|--------------------------------|-------|--------------------|---------|---------------------------|
|                           |                            |                           |                                     | Mean        | Range       | Mean                           | Range | Mean               | Range   |                           |
| CoV 14062 x CoA 7602      | 12                         | 136                       | 123                                 | 19.8        | 18.6 – 22.8 | 4.8                            | 3-8   | 2.82               | 2.5-3.4 | 4                         |
| CoC 13339 x CoT 8201      | 33                         | 71                        | 69                                  | 20.2        | 18.4-23.2   | 4.5                            | 3-7   | 2.65               | 2.6-3.3 | 3                         |
| CoVc 14062 x CoVc 14061   | 17                         | 148                       | 141                                 | 20.0        | 18.0-23.2   | 4.7                            | 3-10  | 2.81               | 2.4-3.5 | 5                         |
| CoOr 03152 x CoPant 97222 | 45                         | 192                       | 188                                 | 20.1        | 18.8-23.2   | 5.3                            | 4-10  | 2.91               | 2.6-3.4 | 4                         |
| Co 88025 x CoPb 08212     | 29                         | 26                        | 25                                  | 19.7        | 17.8-22.6   | 4.5                            | 4-7   | 2.79               | 2.3-3.3 | 1                         |
| Co 2000-10 x 85 R 186     | 27                         | 48                        | 45                                  | 20.3        | 19.2-23.4   | 5.1                            | 4-10  | 2.84               | 2.9-3.5 | 2                         |
| CoM 9217 x CoVc 14061     | 12                         | 322                       | 301                                 | 20.1        | 18.4-23.4   | 5.0                            | 4-9   | 2.86               | 2.6-3.5 | 5                         |
| Co 88025 x Co 775         | 21                         | 170                       | 165                                 | 19.9        | 18.6-22.8   | 4.8                            | 3-8   | 2.78               | 2.5-3.4 | 2                         |
| Co 86032 x ISH 41         | 26                         | 128                       | 119                                 | 20.5        | 19.2-23.0   | 4.7                            | 3-9   | 2.95               | 2.7-3.5 | 6                         |
| Co 2000-10 x CoBln 03174  | 14                         | 206                       | 200                                 | 20.1        | 18.4-22.4   | 5.0                            | 3-10  | 2.85               | 2.6-3.4 | 3                         |
| CoH 119 x Co 94008        | 20                         | 56                        | 52                                  | 20.7        | 19.8-23.2   | 5.2                            | 4-10  | 2.77               | 2.5-3.3 | 2                         |
| Co 740 x CoC 671          | 17                         | 333                       | 314                                 | 20.2        | 18.8-23.4   | 4.8                            | 4-9   | 2.71               | 2.4-3.4 | 2                         |
| CoC 779 x CoA 7602        | 16                         | 72                        | 71                                  | 20.3        | 19.2-22.8   | 4.6                            | 3-8   | 2.83               | 2.6-3.3 | 3                         |
| CoC 773 GC                | 59                         | 432                       | 421                                 | 19.9        | 18.6-23.2   | 4.8                            | 2-9   | 2.77               | 2.3-3.5 | 2                         |
| MS 68/47 GC               | 31                         | 214                       | 203                                 | 19.8        | 18.4-23.4   | 5.2                            | 4-8   | 2.84               | 2.8-3.3 | 6                         |
| CoSi 6 GC                 | 24                         | 243                       | 239                                 | 20.2        | 19.4-23.0   | 5.1                            | 3-8   | 2.93               | 2.7-3.5 | 4                         |
| ISH 69 GC                 | 10                         | 197                       | 181                                 | 19.8        | 18.2 – 22.8 | 5.6                            | 2-8   | 3.04               | 2.6-3.4 | 4                         |
| CoC 779 GC                | 1                          | 25                        | 22                                  | 20.4        | 19.6 – 23.4 | 5.2                            | 3-8   | 2.98               | 2.7-3.3 | 1                         |
| CoA 13327 GC              | 9                          | 72                        | 70                                  | 20.0        | 19.4-22.8   | 4.7                            | 2-7   | 3.06               | 2.8-3.4 | 1                         |
| CP 52-68 PC               | 43                         | 223                       | 205                                 | 20.2        | 19.2-23.2   | 4.9                            | 3-8   | 3.02               | 2.9-3.5 | 1                         |
| CoA 7602 PC               | 18                         | 202                       | 196                                 | 19.8        | 19.2-22.8   | 4.5                            | 2-7   | 3.05               | 2.8-3.2 | 2                         |
| CoV 94101 PC              | 10                         | 195                       | 182                                 | 19.6        | 19.0-22.8   | 4.9                            | 3-6   | 3.02               | 2.9-3.5 | 1                         |

|             |    |     |     |      |           |     |     |      |         |   |
|-------------|----|-----|-----|------|-----------|-----|-----|------|---------|---|
| Co 85002 PC | 27 | 307 | 301 | 20.4 | 20.2-23.2 | 4.7 | 3-8 | 3.10 | 2.9-3.4 | 2 |
|-------------|----|-----|-----|------|-----------|-----|-----|------|---------|---|

#### Performance of crosses in first clonal trial (2020-21)

| Cross combination     | No. of clones planted | HR brix at 8 <sup>th</sup> month |           | HR brix at 10 <sup>th</sup> month |           | HR brix at 12 <sup>th</sup> month |           | Number of millable canes (NMC) |       | Cane diameter (cm) |         | No. of clones selected |
|-----------------------|-----------------------|----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|--------------------------------|-------|--------------------|---------|------------------------|
|                       |                       | Mean                             | Range     | Mean                              | Range     | Mean                              | Range     | Mean                           | Range | Mean               | Range   |                        |
| Co 86002 x ISH 69     | 8                     | 16.3                             | 15.0-18.2 | 18.2                              | 17.8-19.8 | 21.2                              | 19.6-22.8 | 5.5                            | 4-7   | 3.0                | 2.8-3.2 | 5                      |
| CoTL 1153 x CoC 8001  | 3                     | 18.1                             | 17.8-18.6 | 19.6                              | 19.2-20.0 | 21.5                              | 21.2-22.0 | 6.3                            | 5-8   | 3.1                | 3.0-3.3 | 2                      |
| Co 8371 x Co 11015    | 6                     | 16.9                             | 15.4-18.2 | 17.7                              | 16.8-18.8 | 19.5                              | 19-20.8   | 4.7                            | 3-6   | 3.0                | 2.8-3.3 | 1                      |
| Co 2000-10 x Co 94008 | 5                     | 16.3                             | 15.6-17.0 | 18.6                              | 17.8-19.2 | 20.4                              | 19.6-21.2 | 4.6                            | 4-6   | 3.2                | 2.9-3.4 | 2                      |
| Co 86002 x Co 775     | 6                     | 16.5                             | 16.0-17.4 | 18.4                              | 17.6-19.8 | 20.3                              | 19.8-21.4 | 4.3                            | 3-6   | 3.0                | 2.7-3.2 | 1                      |
| CoA 92081 x Co 62198  | 6                     | 16.7                             | 15.8-17.8 | 18.5                              | 17.6-19.6 | 20.6                              | 19.4-21.8 | 4.7                            | 3-6   | 3.1                | 2.8-3.4 | 1                      |
| Co 94008 x Co 12014   | 3                     | 16.8                             | 16.4-17.2 | 19.1                              | 18.2-19.8 | 21.3                              | 20.0-22.4 | 5                              | 4-6   | 3.2                | 3.1-3.3 | 2                      |
| Co 86032 x Co 0233    | 4                     | 16.4                             | 15.6-16.8 | 18.7                              | 17.8-19.4 | 21.2                              | 19.6-22.4 | 5.3                            | 5-6   | 3.1                | 2.9-3.3 | 2                      |
| Co 86032 x Co 11015   | 8                     | 16.9                             | 16.0-17.6 | 18.9                              | 18.2-20.4 | 20.9                              | 20.0-22.8 | 5.0                            | 3-7   | 3.0                | 2.6-3.3 | 3                      |
| Co 0235 GC            | 4                     | 17.0                             | 16.6-17.2 | 19.5                              | 18.2-20.4 | 21.5                              | 20.0-23.0 | 4.3                            | 3-6   | 3.2                | 3.0-3.4 | 2                      |
| Co 62198 GC           | 3                     | 16.6                             | 15.8-17.2 | 18.9                              | 18.2-19.6 | 21.2                              | 19.8-22.4 | 4.7                            | 4-5   | 3.3                | 3.2-3.4 | 2                      |
| Co 86002 GC           | 2                     | 16.5                             | 15.8-17.2 | 18.6                              | 17.6-19.6 | 21.1                              | 20.0-22.2 | 5                              | 4-6   | 3.3                | 3.2-3.4 | 1                      |
| Co 0212 GC            | 3                     | 17.1                             | 16.4-17.6 | 19.3                              | 18.2-20.0 | 21.9                              | 20.0-23.2 | 4.7                            | 3-6   | 3.1                | 3.0-3.3 | 2                      |
| CoC 08336 GC          | 3                     | 16.5                             | 15.8-17.2 | 18.7                              | 18.2-19.6 | 20.7                              | 19.8-22.2 | 4.7                            | 4-5   | 3.2                | 3.1-3.3 | 1                      |
| CoA 7602 PC           | 2                     | 17.0                             | 16.6-17.4 | 18.6                              | 18.0-19.2 | 20.8                              | 19.8-21.8 | 4.5                            | 4-5   | 3.3                | 3.2-3.4 | 1                      |
| Co 8371 PC            | 4                     | 17.4                             | 17.0-17.8 | 19.7                              | 18.8-20.4 | 21.3                              | 20.2-22.8 | 4.3                            | 3-6   | 3.1                | 2.9-3.2 | 2                      |

#### Performance of crosses in second clonal trial (2020-21)

| Cross combination *     | No. of clones planted | No. of clones with > 20% sucrose at 240 days | No. of clones with > 22% sucrose at 300 days | No. of clones with > 22% sucrose at 360 days | No. of clones with > 70NM C /20'row | No. of clones with > 2.5 cm cane thickness | Superiority of the cross (Sucrose <sup>a</sup> /NMC <sup>b</sup> / cane dia <sup>c</sup> / Red rot resistance) | No. of clones selected |
|-------------------------|-----------------------|--|--|--|-------------------------------------|--|--|------------------------|
| Co 0238 x Co 97015      | 4                     | 4  | 4  | 4  | 4                                   | 4  | a,b & c  | 4                      |
| Co 86002 x CoH 70       | 7                     | 5  | 3  | 3  | 6                                   | 7  | a,b & c  | 2                      |
| NB 94545 x CoA 13327    | 20                    | 12   | 9  | 5  | 15                                  | 19   | a,b & c  | 3                      |
| CoOr 0315 x CoH 70      | 1                     | 1  | 1  | 1  | 1                                   | 1  | a,b & c  | 1                      |
| BO 102 x Co 97015       | 4                     | 4  | 3  | 2  | 4                                   | 4  |  | 1                      |
| CoM 6806 X CoPant 90233 | 3                     | 3  | 2  | 2  | 3                                   | 3  | a,b & c  | 0**                    |

|                       |   |   |   |   |   |   |       |     |
|-----------------------|---|---|---|---|---|---|-------|-----|
| Co 06022 x<br>Co97015 | 1 | - | 1 | - | 1 | 1 | b & c | 0** |
|-----------------------|---|---|---|---|---|---|-------|-----|

\* Clones were not tested against red rot; \*\* not selected due to flowering

## Vuyyuru

Performance of selected seedlings in Seedling nursery (2020-21)

| Clone     | Parentage               | NMC /<br>Clump | Clump<br>Weight (Kg) | LMC<br>(cm) | Diameter<br>(cm) | H.R. Brix |
|-----------|-------------------------|----------------|----------------------|-------------|------------------|-----------|
| 2021 V 1  | Co 8371 X Co 1148       | 8              | 5.5                  | 150.0       | 2.41             | 23.60     |
| 2021 V 2  | Co 8371 X Co 1148       | 5              | 5.0                  | 173.3       | 2.26             | 18.77     |
| 2021 V 3  | Co 8371 X Co 1148       | 7              | 5.0                  | 136.7       | 2.34             | 21.37     |
| 2021 V 4  | Co 8371 X Co 1148       | 5              | 5.0                  | 141.7       | 2.27             | 20.17     |
| 2021 V 5  | Co 8371 X Co 1148       | 3              | 2.5                  | 140.0       | 2.46             | 20.47     |
| 2021 V 6  | Co 8371 X Co 1148       | 4              | 4.5                  | 170.0       | 2.46             | 21.60     |
| 2021 V 7  | Co 8371 X Co 1148       | 4              | 6.0                  | 170.0       | 3.08             | 20.79     |
| 2021 V 8  | Co 8371 X Co 1148       | 4              | 3.0                  | 121.7       | 2.23             | 20.33     |
| 2021 V 9  | Co 8371 X Co 1148       | 6              | 7.0                  | 243.3       | 2.27             | 24.20     |
| 2021 V 10 | Co 8371 X Co 1148       | 4              | 5.0                  | 171.7       | 2.52             | 22.80     |
| 2021 V 11 | Co 8371 X Co 1148       | 5              | 5.5                  | 190.0       | 2.27             | 21.53     |
| 2021 V 12 | Co 8371 X Co 1148       | 3              | 4.0                  | 190.0       | 2.46             | 20.30     |
| 2021 V 13 | Co 8371 X Co 1148       | 3              | 4.0                  | 153.3       | 2.31             | 20.43     |
| 2021 V 14 | Co 8371 X Co 1148       | 5              | 6.0                  | 173.3       | 2.46             | 23.65     |
| 2021 V 15 | Co 8371 X Co 1148       | 11             | 16.0                 | 236.7       | 2.49             | 21.80     |
| 2021 V 16 | Co Vc 14062 X Co S 8436 | 5              | 5.0                  | 156.7       | 2.23             | 21.13     |
| 2021 V 17 | Co Vc 14062 X Co S 8436 | 2              | 2.5                  | 200.0       | 2.60             | 22.53     |
| 2021 V 18 | Co Vc 14062 X Co S 8436 | 5              | 8.0                  | 213.3       | 2.46             | 21.73     |
| 2021 V 19 | Co Vc 14062 X Co S 8436 | 5              | 8.0                  | 216.7       | 2.45             | 21.17     |
| 2021 V 20 | Co Vc 14062 X Co S 8436 | 2              | 3.0                  | 190.0       | 2.48             | 22.30     |
| 2021 V 21 | C 79218 X Co 86011      | 5              | 12.0                 | 221.7       | 2.432            | 22.45     |
| 2021 V 22 | C 79218 X Co 86011      | 4              | 7.0                  | 217.5       | 2.50             | 22.35     |
| 2021 V 23 | C 79218 X Co 86011      | 4              | 6.5                  | 178.3       | 2.34             | 20.20     |
| 2021 V 24 | C 79218 X Co 86011      | 6              | 8.0                  | 221.7       | 2.61             | 20.60     |
| 2021 V 25 | C 79218 X Co 86011      | 3              | 5.0                  | 148.3       | 2.46             | 22.15     |
| 2021 V 26 | CP 52-68 PC             | 5              | 8.0                  | 215.0       | 2.57             | 21.07     |
| 2021 V 27 | CP 52-68 PC             | 5              | 6.0                  | 171.7       | 2.57             | 21.93     |
| 2021 V 28 | Co V 89101 X Co A 7602  | 4              | 6.0                  | 173.3       | 3.19             | 25.20     |
| 2021 V 29 | Co V 89101 X Co A 7602  | 5              | 9.0                  | 180.0       | 2.64             | 22.85     |
| 2021 V 30 | Co V 89101 X Co A 7602  | 8              | 11.0                 | 190.0       | 2.61             | 21.50     |
| 2021 V 31 | Co V 89101 X Co A 7602  | 4              | 6.0                  | 163.3       | 2.10             | 23.70     |
| 2021 V 32 | Co V 89101 X Co A 7602  | 5              | 5.0                  | 171.7       | 2.31             | 22.63     |
| 2021 V 33 | Co V 89101 X Co A 7602  | 4              | 4.0                  | 160.0       | 2.27             | 26.23     |
| 2021 V 34 | Co V 89101 X Co A 7602  | 6              | 7.0                  | 160.0       | 2.61             | 23.57     |
| 2021 V 35 | Co V 89101 X Co A 7602  | 3              | 5.0                  | 141.7       | 2.61             | 21.83     |
| 2021 V 36 | Co V 89101 X Co A 7602  | 4              | 6.0                  | 195.0       | 2.49             | 22.27     |

|              |                          |    |      |       |      |       |
|--------------|--------------------------|----|------|-------|------|-------|
| 2021 V 37    | Co V 89101 X ISH 69      | 4  | 8.0  | 188.3 | 2.72 | 20.83 |
| 2021 V 38    | Co V 89101 X ISH 69      | 4  | 6.0  | 186.7 | 2.30 | 20.87 |
| 2021 V 39    | Co V 89101 X ISH 69      | 8  | 10.0 | 178.3 | 2.46 | 21.17 |
| 2021 V 40    | Co V 89101 X ISH 69      | 8  | 11.0 | 138.3 | 2.64 | 20.73 |
| 2021 V 41    | Co 8371 X ISH 229        | 4  | 6.0  | 186.7 | 1.94 | 20.00 |
| 2021 V 42    | Co V 92101 PC            | 4  | 5.0  | 145.0 | 2.60 | 26.47 |
| 2021 V 43    | Co V 89101 PC            | 5  | 6.0  | 201.7 | 2.61 | 23.80 |
| 2021 V 44    | Co V 12357 GC            | 2  | 2.0  | 162.5 | 2.44 | 21.43 |
| 2021 V 45    | Co V 12357 GC            | 3  | 5.0  | 228.7 | 2.64 | 21.07 |
| 2021 V 46    | Co V 12357 GC            | 4  | 5.0  | 195.0 | 2.65 | 21.35 |
| 2021 V 47    | Co V 12357 GC            | 10 | 12.0 | 255.0 | 2.49 | 21.53 |
| 2021 V 48    | Co V 12357 GC            | 3  | 4.0  | 200.0 | 2.41 | 21.23 |
| 2021 V 49    | Co V 12357 GC            | 7  | 8.0  | 193.3 | 2.49 | 23.03 |
| 2021 V 50    | Co V 12357 GC            | 4  | 5.0  | 203.3 | 2.27 | 21.90 |
| 2021 V 51    | Co 98010 X Co Pant 97222 | 6  | 8.0  | 215.0 | 2.93 | 21.50 |
| 2021 V 52    | Co 98010 X Co Pant 97222 | 4  | 8.0  | 240.0 | 2.67 | 22.20 |
| 2021 V 53    | Co 98010 X Co Pant 97222 | 6  | 6.0  | 201.7 | 2.75 | 21.40 |
| 2021 V 54    | Co 98010 X Co Pant 97222 | 4  | 5.0  | 208.3 | 2.31 | 21.30 |
| 2021 V 55    | Co 98010 X Co Pant 97222 | 5  | 7.0  | 231.7 | 2.64 | 20.30 |
| 2021 V 56    | Co 98010 X Co Pant 97222 | 3  | 2.5  | 193.3 | 2.34 | 21.50 |
| 2021 V 57    | Co 98010 X Co Pant 97222 | 4  | 5.0  | 186.7 | 2.71 | 20.40 |
| 2021 V 58    | Co 98010 X Co Pant 97222 | 4  | 7.0  | 186.7 | 2.64 | 20.97 |
| 2021 V 59    | Co 98010 X Co Pant 97222 | 5  | 7.0  | 225.0 | 2.82 | 21.40 |
| 2021 V 60    | Co 98010 X Co Pant 97222 | 5  | 7.0  | 186.7 | 3.30 | 20.80 |
| 2021 V 61    | Co A 90081 GC            | 9  | 15.0 | 230.0 | 2.63 | 23.95 |
| 2021 V 62    | Co A 90081 GC            | 4  | 5.0  | 186.7 | 2.27 | 21.17 |
| 2021 V 63    | Co A 90081 GC            | 3  | 5.0  | 173.3 | 2.51 | 22.07 |
| 2021 V 64    | Co A 90081 GC            | 3  | 4.0  | 118.3 | 2.27 | 20.67 |
| 2021 V 65    | Co A 90081 GC            | 7  | 7.0  | 138.3 | 2.27 | 23.40 |
| 2021 V 66    | Co 8371 PC               | 3  | 5.0  | 161.7 | 2.52 | 24.53 |
| 2021 V 67    | Co 8371 PC               | 5  | 4.0  | 173.3 | 2.43 | 21.65 |
| 2021 V 68    | Co 8371 PC               | 3  | 3.0  | 156.7 | 2.61 | 20.53 |
| 2021 V 69    | 89 V 74 GC               | 5  | 7.0  | 181.7 | 2.49 | 23.40 |
| 2021 V 70    | 89 V 74 GC               | 6  | 4.0  | 161.7 | 2.52 | 21.40 |
| 2021 V 71    | 89 V 74 GC               | 3  | 4.0  | 170.0 | 2.64 | 20.17 |
| 2021 V 72    | 89 V 74 GC               | 11 | 12.0 | 163.3 | 2.28 | 20.13 |
| 2021 V 73    | 89 V 74 GC               | 4  | 5.0  | 181.7 | 2.31 | 24.27 |
| 2021 V 74    | 89 V 74 GC               | 5  | 6.0  | 175.0 | 2.08 | 22.10 |
| 2021 V 75    | 89 V 74 GC               | 3  | 3.0  | 150.0 | 2.34 | 22.03 |
| 87 A 298 (C) | Co A 7704 X Co C 671     | 4  | 4.0  | 170.0 | 2.56 | 19.75 |
| Co 86249 (C) | Co 62198 X Co C 671      | 4  | 5.0  | 186.9 | 2.50 | 20.94 |

Performance of crosses seedling nursery (2020-21)

| Parentage | Clone | NMC/ | Clump | LMC | Diamete | H.R. |
|-----------|-------|------|-------|-----|---------|------|
|-----------|-------|------|-------|-----|---------|------|

|                          |                   | Clump | Weight (Kg) | (cm)   | r (cm) | Brix  |
|--------------------------|-------------------|-------|-------------|--------|--------|-------|
| Co 8371 X Co 1148        | 2021 V 1 to V 15  | 5.1   | 5.6         | 170.78 | 2.42   | 21.45 |
| Co Vc 14062 X Co S 8436  | 2021 V 14 to V 20 | 3.8   | 5.3         | 195.34 | 2.44   | 21.77 |
| C 79218 X Co 86011       | 2021 V 21 to V 25 | 4.4   | 7.7         | 197.50 | 2.47   | 21.55 |
| CP 52-68 PC              | 2021 V 26 to V 27 | 5.0   | 7.0         | 193.35 | 2.57   | 21.50 |
| Co V 89101 X Co A 7602   | 2021 V 28 to V 36 | 4.8   | 6.6         | 170.56 | 2.54   | 23.31 |
| Co V 89101 X ISH 69      | 2021 V 37 to V 40 | 4.5   | 6.6         | 189.19 | 2.50   | 22.03 |
| Co 8371 X ISH 229        | 2021 V 41         | 4.0   | 6.0         | 186.70 | 1.94   | 20.00 |
| Co V 92101 PC            | 2021 V 42         | 4.0   | 5.0         | 145.00 | 2.60   | 26.47 |
| Co V 89101 PC            | 2021 V 43         | 5.0   | 6.0         | 201.70 | 2.61   | 23.80 |
| Co V 12357 GC            | 2021 V 44 to V 50 | 4.7   | 5.9         | 205.40 | 2.48   | 21.65 |
| Co 98010 X Co Pant 97222 | 2021 V 51 to V 60 | 4.6   | 6.3         | 207.51 | 2.71   | 21.18 |
| Co A 90081 GC            | 2021 V 61 to V 65 | 5.2   | 7.2         | 169.32 | 2.39   | 22.25 |
| Co 8371 PC               | 2021 V 66 to V 68 | 3.7   | 4.0         | 163.90 | 2.52   | 22.24 |
| 89 V 74 GC               | 2021 V 69 to V 75 | 5.3   | 5.9         | 169.06 | 2.38   | 21.93 |

Performance of selected clones in settling nursery (2020-21)

| Clone     | Parentage             | NMC (000s/ha) | H.R. Brix | Plant height (cm) | Diameter (cm) | Cane yield (t/ha) | Brix yield (t/ha) |
|-----------|-----------------------|---------------|-----------|-------------------|---------------|-------------------|-------------------|
| 2020 V 4  | Co V 89101 GC         | 75.000        | 21.15     | 244.3             | 2.44          | 105.00            | 22.21             |
| 2020 V 5  | Co V 89101 GC         | 100.000       | 21.23     | 214.7             | 2.89          | 135.00            | 28.66             |
| 2020 V 10 | Co V 89101 GC         | 97.500        | 19.47     | 244.3             | 2.70          | 120.00            | 23.36             |
| 2020 V 12 | Co V 89101 GC         | 50.000        | 20.40     | 229.7             | 2.66          | 75.00             | 15.30             |
| 2020 V 24 | Co V 89101 GC         | 160.000       | 21.43     | 282.7             | 2.76          | 138.75            | 29.73             |
| 2020 V 34 | Co V 89101 GC         | 60.000        | 20.83     | 210.0             | 2.46          | 85.00             | 17.71             |
| 2020 V 42 | Co V 89101 GC         | 82.500        | 19.55     | 216.3             | 2.63          | 98.75             | 19.31             |
| 2020 V 51 | 69 A 591 GC           | 102.500       | 20.17     | 234.7             | 2.19          | 105.00            | 21.18             |
| 2020 V 53 | 69 A 591 GC           | 65.000        | 20.70     | 243.3             | 2.42          | 123.75            | 25.62             |
| 2020 V 58 | Co 7224 GC            | 100.000       | 21.98     | 212.7             | 2.17          | 165.00            | 36.27             |
| 2020 V 63 | Co M 6806 X ISH 41    | 102.500       | 23.07     | 223.3             | 1.88          | 190.00            | 43.83             |
| 2020 V 64 | Co V 89101 X ISH 69   | 60.000        | 22.40     | 232.7             | 2.94          | 150.00            | 33.60             |
| 2020 V 70 | Co V 89101 X ISH 69   | 115.000       | 21.83     | 225.7             | 2.48          | 165.00            | 36.02             |
| 2020 V 71 | Co V 89101 X ISH 69   | 102.500       | 22.28     | 217.3             | 2.44          | 127.50            | 28.41             |
| 2020 V 74 | Co 8371 X Co 89003    | 155.000       | 21.77     | 216.0             | 2.38          | 253.75            | 55.24             |
| 2020 V 75 | Co 8371 X Co 89003    | 87.500        | 22.53     | 216.0             | 2.53          | 105.00            | 23.66             |
| 2020 V 76 | Co 8371 X Co 89003    | 85.000        | 23.00     | 260.0             | 2.29          | 100.00            | 23.00             |
| 2020 V 77 | Co 8371 X Co 89003    | 50.000        | 20.07     | 228.0             | 2.53          | 105.00            | 21.07             |
| 2020 V 79 | Co V 89101 X Co 97015 | 80.000        | 20.53     | 195.3             | 2.28          | 158.75            | 32.59             |
| 2020 V 82 | Co V 89101 X Co 97015 | 140.000       | 21.15     | 253.3             | 1.87          | 125.00            | 26.44             |
| 2020 V 86 | Co V 89101 X Co 97015 | 110.000       | 20.23     | 231.3             | 2.41          | 127.50            | 25.79             |
| 2020 V 91 | Co V 89101 X Co 97015 | 85.000        | 23.37     | 214.0             | 2.88          | 225.00            | 52.58             |
| 2020 V 92 | Co V 89101 X Co 97015 | 80.000        | 21.73     | 218.0             | 2.54          | 163.75            | 35.58             |
| 2020 V 93 | Co V 89101 X Co 97015 | 105.000       | 21.20     | 223.0             | 2.86          | 156.25            | 33.13             |

|             |                        |         |       |       |      |        |       |
|-------------|------------------------|---------|-------|-------|------|--------|-------|
| 2020 V 95   | Co V 89101 X Co 97015  | 60.000  | 21.33 | 234.7 | 2.51 | 106.25 | 22.66 |
| 2020 V 96   | Co V 89101 X Co 97015  | 125.000 | 22.48 | 225.0 | 2.83 | 168.75 | 37.94 |
| 2020 V 97   | Co V 89101 X Co 97015  | 112.500 | 21.63 | 236.7 | 2.51 | 92.50  | 20.01 |
| 2020 V 99   | Co V 89101 X Co 97015  | 117.500 | 21.58 | 210.0 | 2.57 | 116.25 | 25.09 |
| 2020 V 100  | Co V 89101 X Co 97015  | 105.000 | 22.40 | 206.7 | 2.74 | 123.75 | 27.72 |
| 2020 V 101  | Co V 89101 X Co 97015  | 97.500  | 20.50 | 228.3 | 2.32 | 103.75 | 21.27 |
| 2020 V 102  | Co V 89101 X Co 97015  | 117.500 | 20.00 | 194.7 | 2.29 | 110.00 | 22.00 |
| 2020 V 104  | Co V 89101 X Co 97015  | 112.500 | 20.80 | 240.0 | 2.32 | 112.50 | 23.40 |
| 2020 V 106  | Co V 89101 X Co 97015  | 65.000  | 20.67 | 217.3 | 2.83 | 130.00 | 26.87 |
| 2020 V 107  | Co V 89101 X Co 97015  | 97.500  | 21.03 | 230.7 | 2.31 | 173.50 | 36.49 |
| 2020 V 109  | Co V 89101 X Co 97015  | 120.000 | 20.98 | 214.0 | 2.47 | 213.75 | 44.84 |
| 2020 V 110  | Co V 89101 X Co 97015  | 102.500 | 22.27 | 187.7 | 2.52 | 105.00 | 23.38 |
| 2020 V 111  | Co V 89101 X Co 97015  | 107.500 | 20.93 | 208.7 | 2.47 | 107.50 | 22.50 |
| 2020 V 113  | Co V 89101 X Co 97015  | 75.000  | 22.83 | 208.0 | 2.60 | 115.00 | 26.25 |
| 2020 V 116  | Co V 89101 X Co 97015  | 130.000 | 20.27 | 219.3 | 2.47 | 135.00 | 27.36 |
| 2020 V 120  | Co Or 03152 X Co 11015 | 112.500 | 20.77 | 209.7 | 2.37 | 117.50 | 24.40 |
| 87 A 298(C) | Co A 7704 X Co C 671   | 115.000 | 20.79 | 223.3 | 2.48 | 135.00 | 28.07 |
| Co 86249(C) | Co 62198 X Co C 671    | 117.500 | 20.63 | 206.0 | 2.31 | 130.00 | 26.82 |

Performance of selected clones in Selection nursery (2020-21)

| Clone     | Parentage             | NMC (000s/ha) | Cane yield (t/ha) | % Juice Sucrose | Length of millable cane(cm) | Diameter (cm) | Single Cane Weight(kg) |
|-----------|-----------------------|---------------|-------------------|-----------------|-----------------------------|---------------|------------------------|
| 2019 V 6  | Co 98008 × Co 1148    | 91.875        | 125.63            | 18.63           | 265.0                       | 2.43          | 0.83                   |
| 2019 V 16 | Co 98008 × Co 1148    | 160.625       | 151.25            | 18.88           | 217.5                       | 1.68          | 0.73                   |
| 2019 V 18 | Co 98008 × Co 1148    | 126.250       | 113.13            | 19.02           | 210.0                       | 2.13          | 0.80                   |
| 2019 V 23 | Co 98008 × Co 1148    | 129.375       | 120.63            | 17.46           | 218.3                       | 2.27          | 1.00                   |
| 2019 V 36 | Co 98010 × Co H 104   | 121.875       | 138.13            | 17.78           | 266.0                       | 2.33          | 1.85                   |
| 2019 V 37 | Co 98010 × Co H 104   | 125.625       | 121.25            | 19.48           | 241.3                       | 2.43          | 1.23                   |
| 2019 V 38 | Co C 671 × Co H 70    | 106.250       | 116.25            | 17.82           | 240.0                       | 2.70          | 1.23                   |
| 2019 V 39 | Co C 671 × Co H 70    | 78.750        | 125.00            | 17.27           | 331.7                       | 3.18          | 1.80                   |
| 2019 V 40 | Co V 89101 × LG 05434 | 108.125       | 105.63            | 19.29           | 237.5                       | 2.16          | 0.80                   |
| 2019 V 42 | Co V 89101 × LG 05434 | 107.500       | 111.25            | 19.21           | 228.8                       | 2.50          | 0.90                   |
| 2019 V 46 | Co V 89101 × LG 05434 | 122.500       | 124.38            | 19.40           | 233.3                       | 2.16          | 1.00                   |
| 2019 V 47 | Co V 89101 × LG 05434 | 114.375       | 118.13            | 18.85           | 231.7                       | 2.29          | 0.98                   |

|             |                      |         |        |       |       |      |      |
|-------------|----------------------|---------|--------|-------|-------|------|------|
| 2019 V 48   | Co H 110 × Co 775    | 113.750 | 104.38 | 17.66 | 223.3 | 2.17 | 0.80 |
| 87 A 298(C) | Co A 7704 X Co C 671 | 93.125  | 120.00 | 16.71 | 248.8 | 2.33 | 1.33 |
| Co 86249(C) | Co 62198 X Co C 671  | 111.250 | 115.63 | 18.98 | 236.7 | 2.31 | 1.05 |

### 6.2.3. North West Zone

#### 6.2.3.1 Faridkot

Performances of crosses in ground nursery (2020 Series, Crossing during November 2019)

| Cross Combinations  | Total number of seedlings evaluated | No. of seedlings selected | No. of tillers |           | Number of millable canes |          | HR Brix at 8th Months |           | HR Brix at 10th Months |           | HR Brix at 12th Months |           |
|---------------------|-------------------------------------|---------------------------|----------------|-----------|--------------------------|----------|-----------------------|-----------|------------------------|-----------|------------------------|-----------|
|                     |                                     |                           | Mean           | Range     | Mean                     | Range    | Mean                  | Range     | Mean                   | Range     | Mean                   | Range     |
| CoPb 10182 GC       | 116                                 | 32                        | 7              | 5-9       | 4                        | 2-6      | 15.4                  | 13-16     | 16.3                   | 14.0-17.2 | 18.2                   | 17.0-19.2 |
| CoJ83 GC            | 89                                  | 8                         | 12             | 10-18     | 8                        | 6-9      | 16.3                  | 15.0-17.2 | 17.3                   | 17.0-19.2 | 19.2                   | 18.2-20.7 |
| CoPb 14183 GC       | 105                                 | 29                        | 14.0           | 9.0-21.0  | 9.0                      | 6.0-12.0 | 17.7                  | 14.0-18.4 | 18.6                   | 17.8-19.0 | 19.3                   | 18.5-21.0 |
| Sel 9 22/98 GC      | 162                                 | 22                        | 12.0           | 8.0-22.0  | 8.0                      | 5.0-13.0 | 16.2                  | 14.1-18.0 | 18.2                   | 16.4-19.7 | 19.9                   | 18.4-21.2 |
| Co118XCo94005       | 160                                 | 37                        | 14             | 3.0-21.0  | 7.0                      | 1.0-15.0 | 19.5                  | 15.0-22.0 | 20.0                   | 17.0-22.9 | 21.5                   | 19.0-23.0 |
| Co86002XCoPant97222 | 255                                 | 74                        | 16             | 6.0-17.0  | 7.4                      | 2.0-13.0 | 18.0                  | 13.0-20.0 | 19.4                   | 15.3-21.2 | 21.8                   | 16.0-22.8 |
| Co06022XCoH110      | 40                                  | 18                        | 8.3            | 3.0-12.0  | 5.2                      | 1.0-7.0  | 15.2                  | 11.0-18.0 | 17.3                   | 15.4-20.0 | 18.1                   | 17.2-20.0 |
| CoC671XCo99031      | 146                                 | 21                        | 8.3            | 3.0-17.0  | 6.4                      | 3.0-12.0 | 18.2                  | 12.2-19.8 | 19.7                   | 16.2-20.2 | 20.8                   | 17.3-21.1 |
| CoC671XCCoA7321     | 186                                 | 34                        | 10.8           | 5.0-16.0  | 5.7                      | 1.0-12.0 | 14.1                  | 11.2-17.2 | 16.8                   | 13.2-19.4 | 19.5                   | 14.0-20.0 |
| CoC671XCo91031      | 15                                  | 4                         | 11.0           | 4.0-27.0  | 5.8                      | 2.0-16.0 | 17.6                  | 14.0-19.0 | 19.5                   | 14.2-19.0 | 20.0                   | 17.4-20.0 |
| CoPb10183XCo1148    | 73                                  | 24                        | 6.0            | 3.0-14.0  | 3.0                      | 2.0-8.0  | 17.1                  | 14.8-18.8 | 19.2                   | 17.0-19.8 | 20.0                   | 18.1-21.1 |
| Co92006XISH69       | 45                                  | 8                         | 10.9           | 6.0-12.0  | 5.1                      | 3.0-10.0 | 18.0                  | 14.4-19.4 | 19.5                   | 18.0-20.2 | 20.5                   | 19.5-21.0 |
| Co89003XCoPant97222 | 74                                  | 41                        | 11.1           | 10.0-14.0 | 8.3                      | 6.0-13.0 | 16.5                  | 11.0-17.0 | 18.7                   | 13.0-19.0 | 19.6                   | 16.0-20.0 |
| CoC71XCoBln03171    | 82                                  | 20                        | 9.0            | 2.0-13.0  | 5.6                      | 1.0-10.0 | 18.9                  | 15.4-18.2 | 19.4                   | 16.0-19.6 | 21.0                   | 18.8-20.0 |
| Co2000-10XCoH70     | 187                                 | 27                        | 11.3           | 8.0-12.0  | 6.8                      | 6.0-10.0 | 16.1                  | 15.0-18.0 | 18.0                   | 16.2-19.8 | 19.6                   | 18.5-20.7 |
| Co92006XCoH8201     | 215                                 | 46                        | 10             | 5.0-18.0  | 7.0                      | 2.0-11.0 | 18.3                  | 14.2-20.0 | 19.2                   | 15.4-20.6 | 20.0                   | 17.0-21.1 |
| CoJ64XCo97015       | 20                                  | 1                         | 8              | 6-14      | 5                        | 4-6      | 19.0                  | 17.0-20.0 | 20.3                   | 18.6-21.4 | 21.8                   | 19.7-21.9 |
| Co118XCo97015       | 230                                 | 47                        | 16.0           | 13.0-20.0 | 7.0                      | 6.0-9.0  | 18.2                  | 16.2-19.2 | 19.0                   | 17.0-20.0 | 20.4                   | 18.4-22.4 |
| Co92021XBo154       | 560                                 | 47                        | 12             | 8-19      | 8.0                      | 6.0-16.0 | 16.7                  | 15.2-18.4 | 17.6                   | 16.4-18.9 | 18.6                   | 17-19.8   |

Performances of crosses in first clonal trials (2018 Series, Crossing during November 2017)

| Cross Combinations | Germination | No. of clones | HR Brix at 8th months | HR Brix at 10th Months | HR Brix at 12th | NMC |
|--------------------|-------------|---------------|-----------------------|------------------------|-----------------|-----|
|--------------------|-------------|---------------|-----------------------|------------------------|-----------------|-----|



|                       |       |       |         |           |       |           |       |           | Months |           |       |       |
|-----------------------|-------|-------|---------|-----------|-------|-----------|-------|-----------|--------|-----------|-------|-------|
|                       | Mean  | Range | Planted | Select ed | Mean  | Range     | Mean  | Range     | Mean   | Range     | Mean  | Range |
| CoJ 88 PC             | 8     | 7-9   | 3       | 1         | 15.7  | 14.2-17.2 | 17.66 | 16.6-19.8 | 18.28  | 17.1-20.3 | 32.66 | 30-34 |
| Bo 91 GC              | 11    | 11-11 | 1       | 0         | 18.6  | 18.2-19   | 19.9  | 19.8-20   | 20.9   | 20.8-21   | 40    | 40-40 |
| CoPb 09191xCo 01148   | 11.88 | 6-16  | 9       | 0         | 15.37 | 11-17.25  | 17.67 | 13.5-20.3 | 18.63  | 15.4-20.3 | 25.77 | 18-36 |
| Co98008xCoPant97222   | 10.62 | 5-17  | 39      | 1         | 14.3  | 9.5-18.4  | 15.58 | 10-20.2   | 16.55  | 12.2-20.7 | 29.13 | 6-44  |
| Co 9801xCoN 98138     | 12.5  | 10-15 | 4       | 0         | 15.1  | 13.9-16.9 | 15.97 | 14.8-17.5 | 16.72  | 16.1-17.9 | 29.25 | 25-33 |
| CoPb 09181xCo 62198   | 8.94  | 5-15  | 36      | 10        | 15.4  | 6.75-19.6 | 17.6  | 7.8-20.9  | 18.55  | 10.1-21.3 | 24.25 | 11-36 |
| Co 0238 X Co 097015   | 8.5   | 8-9   | 2       | 0         | 12.7  | 12-3.4    | 14.05 | 12-16.1   | 15.55  | 14-17.1   | 18    | 17-19 |
| CoM8606XCoPant84213   | 8.1   | 3-13  | 9       | 0         | 15.06 | 13-16.1   | 16.52 | 15.3-18.6 | 17.37  | 15.3-19.1 | 27.77 | 11-40 |
| CoBln 03179X Co 92008 | 6     | 6-6   | 1       | 0         | 17.5  | 17.2-17.8 | 18.9  | 18.8-19   | 20.1   | 20-20.2   | 19    | 19-19 |
| C 0238 x Co097015     | 10.8  | 8-13  | 11      | 1         | 15.10 | 10.0-18.6 | 16.51 | 10.1-19.5 | 17.75  | 13.7-21.1 | 26.27 | 12-36 |
| CoH 76 X Co 92008     | 10.62 | 2-15  | 32      | 20        | 16.88 | 12.6-20.8 | 18.14 | 13.8-22.1 | 18.96  | 15.1-22.1 | 26.40 | 9-47  |
| Co 98008XCoSnk03044   | 13    | 11-15 | 2       | 0         | 16.3  | 16.1-16.5 | 18.35 | 17.8-18.9 | 19.05  | 18.6-19.5 | 27.5  | 24-31 |
| NB94-545XCo 92008     | 9     | 5-13  | 6       | 2         | 18.2  | 16.1-20.3 | 20.01 | 18.1-21   | 20.66  | 18.7-21.6 | 20.16 | 8-40  |
| Co 62198 X Co 1158    | 9.1   | 1-16  | 9       | 0         | 16.65 | 16.1-17.8 | 18.08 | 16.6-19.3 | 19.1   | 18.1-20.8 | 20.33 | 8-54  |
| CoLk 03-044XCoS13278  | 2.14  | 2-16  | 22      | 2         | 13.9  | 11-19.2   | 15.7  | 13.7-19.1 | 16.62  | 15.2-20.0 | 26.14 | 5-54  |
| Co8208XCoS93278       | 9.06  | 4-16  | 16      | 3         | 17.0  | 12.8-20.0 | 18.21 | 14.4-20.4 | 18.57  | 13.8-22.2 | 25.87 | 10-49 |
| LG 99190XLG 05413     | 12    | 8-17  | 3       | 0         | 12.93 | 10.5-15.0 | 16.73 | 15.7-17.5 | 16.97  | 16.2-17.6 | 27    | 18-43 |
| CoPb 10182XCoS93278   | 11.14 | 2-17  | 17      | 0         | 15    | 9-19.25   | 17.06 | 12-21.2   | 18.1   | 15.9-22.2 | 24.42 | 6-50  |

### Performance of crosses in second clonal trial

| Cross Combinations | No. of clones planted | No. of clones with > 20 % Sucrose at 240 days | No. of clones with > 22 % Sucrose at 300 days | No. of clones with > 22 % Sucrose at 360 days | No. of clones with > 70 NMC/ 2 rows | No. of clones with > 70 Tillers/ 2 rows | Superiority of the crosses (Sucrose/ NMC/ Cane Dia/ Red rot resistant) | No. of clones selected |
|--------------------|-----------------------|---|---|---|-------------------------------------|---|--|------------------------|
| CoLk 8102XBo130    | 4                     | 0   | 0   | 0   | 4                                   | 4                                       | Sucrose, NMC   | 0                      |
| CoPb13183XCoS08279 | 2                     | 0   | 0   | 0   | 2                                   | 2                                       | Sucrose, NMC   | 0                      |
| CoPb13183XISH 80   | 1                     | 0   | 0   | 0   | 0                                   | 0                                       | Sucrose, NMC   | 0                      |
| CoPb13183XCo89029  | 1                     | 0   | 0   | 0   | 1                                   | 1                                       | Sucrose, NMC   | 0                      |
| Co 8102XCo89029    | 1                     | 0   | 0   | 0   | 1                                   | 1                                       | Sucrose, NMC   | 0                      |
| Co 87272XCoH 15    | 2                     | 0   | 0   | 0   | 2                                   | 2                                       | Sucrose, NMC   | 0                      |
| CoPb13183XBo154    | 3                     | 0   | 0   | 0   | 3                                   | 3                                       | Sucrose, NMC   | 1                      |
| CoLk 8102XCo87268  | 6                     | 0   | 0   | 0   | 6                                   | 6                                       | Sucrose, NMC   | 2                      |
| Co86002XBo91       | 8                     | 1   | 1   | 1   | 8                                   | 8                                       | Sucrose, NMC   | 0                      |
| CoPb10182XCo62198  | 6                     | 0   | 0   | 0   | 4                                   | 3                                       | Sucrose, NMC   | 1                      |

|                  |    |   |   |   |    |    |              |   |
|------------------|----|---|---|---|----|----|--------------|---|
| CoPb13182XCo1158 | 6  | 1 | 0 | 0 | 5  | 4  | Sucrose, NMC | 5 |
| Co98133XCo89036  | 1  | 0 | 0 | 0 | 1  | 0  | Sucrose, NMC | 0 |
| Co8353XCoS 510   | 15 | 0 | 0 | 0 | 13 | 12 | Sucrose, NMC | 5 |
| CoV 89101 PC     | 6  | 0 | 0 | 0 | 4  | 6  | Sucrose, NMC | 2 |
| Co 0238 PC       | 4  | 0 | 0 | 0 | 3  | 3  | Sucrose, NMC | 1 |

Information of red resistant clones was not provided by the centre

### 6.2.3.2 Kapurthala

**Performance of crosses in ground nursery (ratoon) :** From fluff of 2019 hybridization programme, 5000 seedlings were transplanted in field during July, 2020 and were ratooned in January, 2021. These seedlings are showing good sprouting and shoot formation. Their final survival after ratoon, cane characteristics and Brix data will be recorded in October-November, 2021 and selection will be made for their advancement to clonal stage I.

**Performance of crosses in first clonal trial (C0 ratooned 2019):** During 2018, 11367 seedlings were ratooned in January month from (C0) seedlings of different cross combinations and were scored for different cane traits and brix using hand refractometer in October and November, 2020. Based on brix and cane traits **561** clones were selected and advanced to clonal stage I for further evaluation in 2021-22 crop season.

**Performance of crosses in second clonal trial (stage I):** Eight hundred twelve (931) clones were advanced from Clonal stage C0 were evaluated in Clonal stage I for cane traits and brix during crop season 2020-21. Data revealed sufficient variability among and within cross combinations for these traits. **Ninety four (66)** were advanced to Clonal stage CII.

**Performance of crosses in second clonal trial (stage II):** In clonal stage II, 168 clones were evaluated for cane yield and quality traits and 32 (12 early + 20 midlate) clones selected and advanced to preliminary yield trial (PYT) for their evaluation to cane yield, its components, quality traits and disease resistance.

### 6.2.3.3 Lucknow

#### Performance of crosses in ground nursery

| Cross combination       | Number of seedling evaluated | HR brix (%) |           | Number of millable cane |       | Cane diameter (cm) |         | No. of seedling Selected |
|-------------------------|------------------------------|-------------|-----------|-------------------------|-------|--------------------|---------|--------------------------|
|                         |                              | Mean        | range     | Mean                    | Range | Mean               | range   |                          |
| CoS 03261 x Co 775      | 1463                         | 18.23       | 16.6-20.4 | 5.5                     | 4-11  | 2.27               | 2.2-2.6 | 13                       |
| Co 86032 x CoPant 97222 | 532                          | 17.54       | 15.6-19.6 | 3.8                     | 5-8   | 2.35               | 2.1-2.7 | 5                        |
| CoS 96260 x ISH 69      | 361                          | 18.42       | 16.2-20.8 | 4.6                     | 3-7   | 2.24               | 2.2-2.8 | 18                       |
| CoS 92268 x ISH 69      | 171                          | 17.21       | 14.8-20.4 | 4.5                     | 3-9   | 2.22               | 2.1-2.4 | 2                        |
| BO 91 x BO 154          | 532                          | 18.24       | 15.6-21.4 | 4.6                     | 4-7   | 2.31               | 2.2-2.7 | 13                       |
| CoH 110 x Co 775        | 513                          | 17.85       | 16.2-20.2 | 5.2                     | 4-9   | 2.31               | 1.9-2.8 | 19                       |
| Co 98010 x Co 97015     | 836                          | 18.36       | 14.8-21.2 | 5.4                     | 4-8   | 2.45               | 2.0-2.5 | 23                       |
| CoM 6806 x CoPant 97222 | 418                          | 18.64       | 16.4-21.4 | 6.5                     | 3-10  | 2.23               | 2.1-2.6 | 16                       |
| Co 89003 x Co 775       | 133                          | 16.81       | 15.6-18.4 | 4.7                     | 2-9   | 1.92               | 1.8-2.6 | 0                        |

|                        |      |       |           |     |      |      |         |    |
|------------------------|------|-------|-----------|-----|------|------|---------|----|
| CoSe 01434 x N Co 310  | 323  | 17.98 | 16.8-19.8 | 5.8 | 3-11 | 2.15 | 1.8-2.4 | 7  |
| LG 0118 x Co 92006     | 209  | 18.24 | 17.8-20.2 | 4.7 | 3-7  | 2.23 | 2.1-2.4 | 22 |
| CoLk 8102 x CoS 88216  | 38   | 17.23 | 16.4-17.8 | 5.6 | 4-9  | 2.24 | 1.8-2.6 | 0  |
| CoH 119 x Co 11015     | 133  | 17.91 | 17.2-18.8 | 6.5 | 4-12 | 2.56 | 1.9-2.7 | 2  |
| CoH 119 x Co 97015     | 76   | 18.51 | 17.6-19.6 | 4.8 | 3-8  | 2.24 | 2.1-2.4 | 2  |
| CoA 92081 x Co 775     | 19   | 17.24 | 16.2-18.4 | 4.9 | 3-9  | 2.21 | 1.8-2.5 | 0  |
| CoBln 03174 x Co 89003 | 38   | 16.87 | 14.6-19.8 | 5.8 | 4-8  | 2.36 | 2.1-2.7 | 2  |
| CoH 110 x CoPant 97222 | 133  | 17.24 | 15.6-18.8 | 5.9 | 5-7  | 2.15 | 1.9-2.3 | 3  |
| Co 0232 x Co 11015     | 76   | 17.36 | 16.2-18.8 | 5.9 | 4-8  | 2.24 | 2.1-2.5 | 1  |
| CoLk 94184 x Co 775    | 57   | 18.20 | 15.2-19.4 | 4.9 | 3-9  | 2.22 | 2.0-2.4 | 1  |
| LG 08422 x ISH 69      | 57   | 18.74 | 14.8-20.8 | 5.9 | 4-8  | 2.42 | 1.8-2.6 | 6  |
| NG 77-142 x Co 86002   | 38   | 16.52 | 14.6-17.2 | 6.2 | 4-9  | 2.23 | 1.7-2.4 | 0  |
| CoV 89101 x Co 1148    | 532  | 18.47 | 16.2-19.8 | 5.4 | 3-7  | 2.35 | 1.8-2.6 | 10 |
| CoH 116 X Co 94008     | 76   | 17.26 | 15.6-18.2 | 4.4 | 2-8  | 2.45 | 2.0-2.8 | 0  |
| Baragua x Co 15008     | 152  | 16.85 | 15.4-17.8 | 6.2 | 4-9  | 2.27 | 2.1-2.4 | 0  |
| LG 05609 GC            | 874  | 18.45 | 14.8-19.8 | 4.8 | 3-7  | 2.21 | 1.8-2.4 | 13 |
| CoPant 84212 GC        | 1178 | 16.25 | 14.2-17.4 | 6.8 | 5-10 | 2.56 | 2.1-2.6 | 0  |
| CoLk 7901 GC           | 1957 | 17.89 | 14.6-20.4 | 4.2 | 3-9  | 2.23 | 1.8-2.4 | 25 |
| LG 72120 GC            | 798  | 17.24 | 15.8-19.6 | 6.8 | 4-12 | 2.27 | 1.7-2.5 | 1  |
| CoLk 13201 GC          | 1349 | 18.42 | 16.8-20.8 | 6.4 | 5-12 | 2.27 | 2.1-2.8 | 51 |
| Co 775 GC              | 1140 | 17.24 | 16.2-19.4 | 5.8 | 3-8  | 2.34 | 2.0-2.7 | 3  |
| LG 07590 GC            | 304  | 18.25 | 16.4-20.8 | 5.9 | 4-9  | 2.12 | 1.9-2.3 | 25 |
| LG 0715 GC             | 969  | 17.24 | 16.2-18.4 | 6.2 | 5-10 | 2.21 | 2.1-2.4 | 0  |
| LG 05610 GC            | 1007 | 17.95 | 17.2-18.6 | 7.2 | 6-9  | 2.37 | 2.0-2.4 | 2  |
| LG 08478 GC            | 589  | 17.89 | 16.2-19.4 | 5.3 | 4-8  | 2.45 | 2.1-2.8 | 12 |
| LG 0844 GC             | 551  | 18.42 | 15.4-20.2 | 5.1 | 3-9  | 2.36 | 2.0-2.7 | 19 |
| LG 02100 GC            | 722  | 18.35 | 14.8-19.8 | 4.7 | 2-10 | 2.05 | 1.8-2.1 | 17 |
| CoSe 96436 GC          | 494  | 18.24 | 16.2-20.4 | 5.8 | 4-9  | 2.02 | 1.9-2.1 | 29 |
| BO 130 GC              | 2622 | 18.21 | 16.4-19.8 | 6.8 | 5-10 | 2.15 | 1.8-2.2 | 20 |
| LG 05817 GC            | 285  | 17.24 | 14.6-19.4 | 4.6 | 2-9  | 2.23 | 1.9-2.4 | 9  |
| CoPant 01215 GC        | 646  | 18.27 | 16.2-21.4 | 4.6 | 3-7  | 2.24 | 2.0-2.6 | 24 |
| LG 08866 GC            | 570  | 18.56 | 16.4-20.8 | 5.2 | 3-8  | 2.25 | 2.1-2.6 | 23 |
| CoSe 92423 GC          | 209  | 17.56 | 16.4-20.0 | 6.3 | 4-7  | 2.26 | 2.2-2.8 | 5  |
| CoLk 09202 GC          | 475  | 18.89 | 17.6-21.4 | 6.7 | 5-8  | 2.24 | 1.8-2.5 | 53 |
| LG 01002 GC            | 19   | 17.45 | 16.8-19.8 | 5.2 | 4-6  | 2.25 | 2.2-2.7 | 2  |
| BO 91 GC               | 1406 | 17.58 | 16.2-20.6 | 6.4 | 3-11 | 2.35 | 2.1-2.7 | 41 |
| LG 07482 GC            | 323  | 17.24 | 15.6-19.8 | 7.2 | 5-10 | 2.45 | 1.8-2.9 | 23 |
| LG 05434 GC            | 608  | 17.32 | 14.8-19.8 | 5.7 | 3-11 | 2.23 | 1.8-2.4 | 11 |
| LG 94164 GC            | 57   | 16.78 | 15.6-19.2 | 6.2 | 5-8  | 2.42 | 2.0-2.7 | 2  |
| LG 991 GC              | 171  | 17.36 | 14.8-19.8 | 5.2 | 4-7  | 2.21 | 2.1-2.4 | 3  |
| CoS 93178 GC           | 247  | 18.24 | 16.6-19.8 | 5.2 | 3-8  | 2.35 | 2.0-2.6 | 8  |
| LG 99183 GC            | 380  | 17.56 | 18.6-20.6 | 6.2 | 4-8  | 2.14 | 2.1-2.6 | 9  |
| LG 99122 GC            | 437  | 18.31 | 16.8-20.4 | 4.6 | 3-11 | 2.24 | 2.0-2.5 | 10 |
| LG 99190 GC            | 38   | 17.24 | 14.6-18.8 | 5.6 | 4-9  | 2.21 | 1.8-2.4 | 1  |
| LG 99001 GC            | 57   | 17.58 | 15.8-19.4 | 6.3 | 5-8  | 2.37 | 1.8-2.7 | 1  |
| LG 08422 GC            | 95   | 17.24 | 16.6-19.8 | 6.4 | 5-9  | 2.28 | 2.1-2.7 | 6  |

|               |     |       |           |     |      |      |         |    |
|---------------|-----|-------|-----------|-----|------|------|---------|----|
| CoLk 97009 GC | 114 | 18.21 | 15.6-20.6 | 5.9 | 4-7  | 2.26 | 2.1-2.6 | 4  |
| CoLk 11201GC  | 38  | 18.89 | 18.6-19.2 | 4.8 | 3-8  | 2.22 | 2.0-2.6 | 2  |
| LG 72115 GC   | 323 | 16.23 | 15.4-17.8 | 5.6 | 4-9  | 2.25 | 1.8-2.4 | 0  |
| CoJ 88 GC     | 532 | 18.28 | 16.2-20.8 | 5.3 | 3-7  | 2.48 | 1.8-2.9 | 26 |
| LG 04602 GC   | 114 | 17.39 | 16.4-18.8 | 4.7 | 2-8  | 2.24 | 2.4-2.8 | 1  |
| LG 09487 GC   | 361 | 18.74 | 15.8-21.4 | 5.6 | 3-9  | 2.24 | 2.1-2.7 | 8  |
| CoLk 8102 GC  | 380 | 17.21 | 16.4-18.8 | 5.3 | 4-8  | 2.45 | 2.0-2.7 | 3  |
| LG 06610 GC   | 133 | 18.21 | 14.8-19.6 | 4.5 | 3-8  | 2.34 | 1.8-2.4 | 2  |
| LG 06604 GC   | 19  | 16.36 | 15.6-17.4 | 5.3 | 4-9  | 2.24 | 1.9-2.6 | 0  |
| CoS 92268 GC  | 95  | 16.96 | 14.6-18.2 | 4.8 | 2-6  | 2.24 | 2.1-2.5 | 0  |
| LG 05823 GC   | 19  | 15.83 | 13.6-17.6 | 4.3 | 3-7  | 2.35 | 2.0-2.6 | 0  |
| CoJn 80141    | 19  | 15.98 | 15.4-16.8 | 7.2 | 3-10 | 2.47 | 2.4-2.5 | 0  |
| CoM 0265 GC   | 57  | 17.24 | 14.6-18.6 | 5.8 | 4-12 | 2.27 | 2.1-2.4 | 0  |
| LG 94187 GC   | 38  | 16.35 | 15.8-19.2 | 4.7 | 3-7  | 2.35 | 2.0-2.6 | 0  |
| LG 07408 GC   | 6   | 15.48 | 14.6-16.8 | 5.9 | 4-11 | 2.58 | 1.9-2.8 | 0  |
| CoS 8436 GC   | 20  | 16.98 | 16.8-18.8 | 6.8 | 3-12 | 2.35 | 1.8-2.4 | 0  |
| CoJ 83 PC     | 57  | 16.28 | 15.8-16.8 | 5.2 | 4-12 | 2.33 | 2.1-2.7 | 0  |
| CoJ 88 PC     | 152 | 17.84 | 16.8-19.8 | 4.8 | 3-8  | 2.23 | 2.2-2.6 | 3  |
| Co 0118 PC    | 8   | 18.47 | 17.6-20.4 | 4.6 | 4-7  | 2.32 | 2.1-2.6 | 3  |
| Co 7201 PC    | 13  | 17.69 | 16.8-19.8 | 5.2 | 3-9  | 2.12 | 2.1-2.4 | 0  |
| CoV 89101 PC  | 19  | 17.58 | 17.2-18.4 | 5.3 | 4-7  | 2.42 | 2.0-2.7 | 0  |

### Performance of crosses in first clonal trial

| Cross combination         | No. of clones planted | HR brix at 8th month |           | HR brix at 10th month |           | Cane diameter (cm) |         | No of clones selected |
|---------------------------|-----------------------|----------------------|-----------|-----------------------|-----------|--------------------|---------|-----------------------|
|                           |                       | Mean                 | Range     | Mean                  | Range     | Mean               | Range   |                       |
| LG 72120 x 28 NG 288      | 1                     | 18.2                 | -         | 18.8                  | -         | 2.35               | -       | 0                     |
| LG 95053 x BO 154         | 13                    | 18.5                 | 17.8-20.4 | 19.2                  | 18.4-21.4 | 2.26               | 2.1-2.6 | 6                     |
| CoSe 01434 x CoPant 97222 | 1                     | 18.8                 | -         | 19.8                  | -         | 2.24               | -       | 1                     |
| CoS 8436 x CoLk 09202     | 10                    | 19.2                 | 18.2-20.8 | 19.5                  | 19.8-21.4 | 2.48               | 2.3-2.7 | 5                     |
| CoH 110 x Co 775          | 8                     | 18.5                 | 18.1-20.8 | 19.2                  | 18.8-21.0 | 2.47               | 2.3-2.8 | 2                     |
| CoH 110 x LG 05434        | 13                    | 17.2                 | 16.2-19.7 | 18.9                  | 17.8-20.5 | 2.36               | 2.1-2.5 | 8                     |
| CoSe 01434 x BO 154       | 2                     | 18.0                 | 17.5-19.5 | 19.3                  | 18.2-20.3 | 2.30               | 2.2-2.4 | 2                     |
| CoLk 94184 x Co 1148      | 8                     | 18.5                 | 17.1-19.9 | 18.8                  | 17.9-20.1 | 2.45               | 2.4-2.6 | 2                     |
| CoLk 94184 x LG 05823     | 17                    | 18.8                 | 17.2-19.9 | 19.2                  | 18.8-20.1 | 2.64               | 2.1-2.8 | 2                     |
| Co 06022 x BO 91          | 1                     | 18.9                 | -         | 19.8                  | -         | 2.23               | -       | 1                     |
| CoH 14 GC                 | 4                     | 18.5                 | 17.5-20.1 | 19.2                  | 18.4-21.3 | 2.63               | 2.2-2.8 | 1                     |
| CoPb 10183 GC             | 2                     | 19.1                 | 18.5-19.6 | 19.7                  | 18.9-20.5 | 2.40               | 2.3-2.5 | 0                     |
| CoH 12 GC                 | 3                     | 18.8                 | 18.2-19.5 | 19.8                  | 18.2-21.0 | 2.45               | 2.2-2.7 | 0                     |
| LG 04605 GC               | 4                     | 18.4                 | 17.5-19.4 | 19.7                  | 18.4-20.1 | 2.23               | 2.1-2.4 | 0                     |
| LG 02100 GC               | 10                    | 18.6                 | 17.4-19.4 | 19.4                  | 18.2-20.4 | 2.41               | 2.2-2.8 | 1                     |
| LG 05810 GC               | 3                     | 18.7                 | 16.5-20.5 | 19.8                  | 18.4-20.6 | 2.25               | 2.2-2.8 | 1                     |
| LG 05434 GC               | 2                     | 18.7                 | 17.8-19.5 | 19.5                  | 18.9-20.1 | 2.10               | 1.8-2.4 | 1                     |
| CoLk 7901 GC              | 15                    | 17.8                 | 17.2-18.9 | 19.5                  | 17.8-21.5 | 2.65               | 2.0-2.7 | 9                     |

|                 |    |      |           |      |           |      |         |   |
|-----------------|----|------|-----------|------|-----------|------|---------|---|
| LG 04602 GC     | 1  | 18.2 | -         | 19.8 | -         | 2.24 | -       | 1 |
| LG 05828 GC     | 1  | 18.6 | -         | 20.1 | -         | 2.35 | -       | 1 |
| CoLk 09202 GC   | 3  | 18.4 | 17.8-19.6 | 19.8 | 19.2-20.5 | 2.45 | 2.1-2.8 | 0 |
| LG 991 GC       | 2  | 18.9 | 18.4-19.5 | 20.2 | 18.9-21.5 | 2.55 | 2.4-2.7 | 0 |
| CoPant 84212 GC | 5  | 18.2 | 17.2-19.5 | 19.8 | 18.4-21.0 | 2.23 | 2.1-2.4 | 2 |
| LG 07482 GC     | 2  | 18.6 | 17.8-19.4 | 19.4 | 18.4-20.3 | 2.10 | 1.8-2.4 | 2 |
| BO 91 GC        | 7  | 18.4 | 17.2-19.8 | 19.2 | 18.4-20.1 | 2.52 | 2.0-2.6 | 1 |
| Co 1148 GC      | 4  | 17.5 | 16.8-18.9 | 19.5 | 18.7-20.8 | 2.00 | 1.8-2.1 | 1 |
| LG 72115 GC     | 2  | 18.7 | 17.8-19.5 | 19.6 | 18.7-20.5 | 2.50 | 2.2-2.8 | 0 |
| CoPb 13183 GC   | 1  | 18.2 | -         | 19.8 | -         | 2.24 | -       | 0 |
| LG 95053 GC     | 2  | 17.9 | 16.9-18.9 | 19.5 | 18.4-20.5 | 2.45 | 2.4-2.5 | 0 |
| LG 95123 GC     | 2  | 18.0 | 16.8-19.2 | 19.5 | 17.5-21.5 | 2.10 | 1.8-2.4 | 0 |
| LG 05493 Self   | 2  | 18.6 | 17.8-19.5 | 19.0 | 18.2-19.8 | 2.20 | 1.8-2.6 | 2 |
| CoLk 8002 GC    | 10 | 18.4 | 16.5-19.7 | 19.8 | 18.2-21.5 | 2.45 | 2.1-2.8 | 3 |
| CoA 7602 GC     | 3  | 18.2 | 17.2-19.3 | 19.4 | 19.1-20.4 | 2.35 | 2.4-2.6 | 1 |
| LG 08422 GC     | 2  | 19.3 | 18.8-19.7 | 20.1 | 19.8-20.4 | 2.60 | 2.4-2.8 | 1 |
| CoLk 8102 GC    | 5  | 18.9 | 18.2-19.8 | 19.4 | 18.7-20.5 | 2.23 | 2.0-2.4 | 1 |
| LG 06839 GC     | 1  | 17.8 | -         | 18.9 | -         | 2.36 | -       | 0 |
| LG 08478 Self   | 2  | 18.6 | 17.8-19.5 |      | 18.9-19.7 | 2.60 | 2.4-2.8 | 0 |

**Performance of crosses in second clonal trial:** Among the 50 crosses / selfs/ polycrosses evaluated in second clonal trial, no selection were effected in the 22 crosses / selfs viz., Co 86002 X Co 775, CoPb 12180 x CoSe 01434, CoP 06436 x Co 62198, CoLk 94184 x ISH 176, CoA 7602 x ISH 136, CoS 8436 x Co 1148, CoS 8436 x Co 0233, UP 9530 x CoP 9301, LG 08478 Self, BO 91 GC, CoJ 88 GC, ISH 100 PC, Co 1158 GC, Co 95021 GC, BO 91 GC, Co 0238 GC, CoLk 8002 GC, ISH 100 PC, Co 1158 GC, LG 07615 GC, Co 98006 GC and Co 1148 GC. Crosses having selection is given in the following table

| Cross combination         | Number of clones planted | No. of clones with >20 % sucrose at 240 days* | No. of clones with >22% sucrose at 300 days* | No. of clones with >22% sucrose at 360 days* | No. of clones with >70 NM C/20' row | Number of clones with >2.5 cm cane thickness | Number of red resistant clone** | Superiority of the cross (Sucrose/NM C/cane dia/red rot resistance) | Number of clones selected |
|---------------------------|--------------------------|---|--|--|-------------------------------------|--|---------------------------------|---|---------------------------|
| CoPant 84212 x CoH 15     | 3                        |   |  |  |                                     |  | 1                               |   | 1                         |
| CoH 110 x Co 1148         | 6                        |   |  |  |                                     |  | 1                               |   | 2                         |
| CoLk 94184 x CoPant 84212 | 3                        |   |  |  |                                     |  | 2                               |   | 2                         |
| LG 07501 x LG 05434       | 12                       |   |  |  |                                     |  | 3                               |   | 4                         |
| CoLk 8002 x Co 62198      | 1                        |   |  |  |                                     |  | 1                               |   | 1                         |
| CoLk 94184 x Co 62198     | 1                        |   |  |  |                                     |  |                                 |   | 1                         |
| CoLk 94184 x Co 775       | 2                        |   |  |  |                                     |  | 1                               |   | 1                         |
| CoSe 95422 x CoSe 92423   | 3                        |   |  |  |                                     |  | 1                               |   | 1                         |
| CoSe 95422 x Co 62198     | 2                        |   |  |  |                                     |  |                                 |   | 2                         |
| BO 91 x CoH 115           | 2                        |   |  |  |                                     |  | 1                               |   | 1                         |
| LG 07482 GC               | 4                        |   |  |  |                                     |  | 1                               |   | 3                         |
| Co 0238 GC                | 2                        |   |  |  |                                     |  | 1                               |   | 1                         |

|               |    |  |  |  |  |  |  |   |  |    |
|---------------|----|--|--|--|--|--|--|---|--|----|
| CoLk 8002 GC  | 1  |  |  |  |  |  |  | 1 |  | 1  |
| LG 72115 GC   | 13 |  |  |  |  |  |  | 3 |  | 3  |
| CoLk 8102 GC  | 1  |  |  |  |  |  |  | 1 |  | 1  |
| LG 04602 GC   | 2  |  |  |  |  |  |  |   |  | 1  |
| LG 05823 GC   | 1  |  |  |  |  |  |  | 1 |  | 1  |
| CoS 88216 GC  | 2  |  |  |  |  |  |  | 1 |  | 1  |
| CoJ 88 GC     | 7  |  |  |  |  |  |  | 2 |  | 4  |
| LG 01030 GC   | 5  |  |  |  |  |  |  | 1 |  | 2  |
| LG 07650 GC   | 2  |  |  |  |  |  |  | 1 |  | 1  |
| LG 02100 GC   | 11 |  |  |  |  |  |  | 1 |  | 3  |
| CoSe 95422 PC | 31 |  |  |  |  |  |  | 7 |  | 13 |
| CoS 8436 PC   | 8  |  |  |  |  |  |  |   |  | 2  |
| LG 06839 GC   | 10 |  |  |  |  |  |  | 1 |  | 1  |
| CoJ 77 GC     | 4  |  |  |  |  |  |  |   |  | 2  |
| Co 88013 GC   | 18 |  |  |  |  |  |  | 1 |  | 5  |
| BO 108 GC     | 4  |  |  |  |  |  |  |   |  | 2  |

\* none of the selected clones recorded >20 % Sucrose in juice.

\*\*Selected clones given for red rot testing during this year (2021-22)

### 6.2.3.3 Uchani

**Performance of crosses in ground nursery:** The fluff was received on Feb 14, 2019 and seedlings were transplanted in ground nursery on July 08, 2019. A total number of 7819 seedling survived out of 11033 seedlingtransplanted in ground nursery during 2019. One thousands eight hundred sixty five seedling from 18 biparental crosses viz. CoH 160 x Co 87268, CoH 56 x Co8353, CoH 92 x Bo91, , Co 0238 x Co 87268, Co 8353 x CoS 96260, CoS 96268 x Co 89029, CoJ 88 x Co 8353, CoPb 9181 x Co 89029, LG 95053 X Co 87268, Co 0237 x ISH 69, CoH 160 x Co 62198, CoH 56 X ISH 69, CoH 104 x ISH 69, CoH 128 x Co 06037, Co 86002 X CoS 96260, CoH 119 X Co 62198, CoJ 64 X Co 87268 and CoPant 84212 x CoH 70, five thousand seven hundred forty four seedlings from 26 general collection viz. Co 0237, Co 1148, Co 89003, Co 86036, CoH 102), CoH 160, CoH 167, CoH 76, CoJ 64, CoJ 88, CoPb 09181, CoS 08279, CoS 8436, CoS 97261, CoH 106, Co 09022, CoH 104, CoH 133, CoL 29, CoH 99, CoH 104 (repeat), Co 98003, CoH 128, CoH 12, CoH 10262 and CoS 8119, two hundred tenseseedlings from 7 poly crosses namely CoM 0265, Co 7201, CoV 89101, CoJ 88, Co 0118 and CoS 8436 were evaluated in ground nursery. The observations on HR brix (%), number of millable canes and cane diameter (cm) were recorded during October, 2020 in seedlings ratoon crop. A total number of 743 seedlings were selected from cross combinations whose performance is presented in table below:

| Sr.No. | Pedigree           | Quantity of fluff sown (g) | Number of Seedlings produced | Number of seedlings evaluated | HR Brix (%) |           | Number of Millable canes (NMC/clump) |          | Cane diameter (cm) |         | No. of seedlings selected |
|--------|--------------------|----------------------------|------------------------------|-------------------------------|-------------|-----------|--------------------------------------|----------|--------------------|---------|---------------------------|
|        |                    |                            |                              |                               | Mean        | Range     | Mean                                 | Range    | Mean               | Range   |                           |
| 1      | CoH 160 x Co 87268 | 10                         | 68                           | 64                            | 21.09       | 20.1-23.1 | 7.81                                 | 2.0-13.0 | 2.39               | 2.0-2.8 | 16                        |
| 2      | CoH 56 x Co8353    | 14.5                       | 132                          | 127                           | 21.06       | 18.0-23.4 | 5.9                                  | 2.0-17.0 | 2.54               | 1.5-4.4 | 41                        |
| 3      | CoH 92 x           | 33                         | 158                          | 98                            | 21.08       | 20.2-     | 6                                    | 1.0-11.0 | 2.39               | 1.8-    | 14                        |

|    |                               |      |      |      |       |                |       |               |      |              |    |
|----|-------------------------------|------|------|------|-------|----------------|-------|---------------|------|--------------|----|
|    | Bo91                          |      |      |      |       | 23.0           |       |               |      | 3.4          |    |
| 4  | Co 0237 x<br>Co 62198         | 21   | 0    | 0    | -     | -              | -     | -             | -    | -            | -  |
| 5  | Co 0238 x<br>Co 87268         | 17   | 53   | 47   | 22.54 | 20.1-<br>24.0  | 7.8   | 3.0-20.0      | 2.31 | 1.6-<br>3.0  | 20 |
| 6  | Co 8353 x<br>CoS 96260        | 30.5 | 458  | 220  | 20.87 | 18.0-<br>24.1  | 6.2   | 1.0-20        | 2.75 | 2.1-<br>4.1  | 60 |
| 7  | CoS 96268 x<br>Co 89029       | 15.5 | 10   | 9    | -     | -              | -     | -             | -    | -            | -  |
| 8  | CoJ 88 x Co<br>8353           | 25.5 | 135  | 81   | 20.92 | 19.0 -<br>23.1 | 6.93  | 1.0 -<br>15.0 | 2.63 | 2.2-<br>3.2  | 14 |
| 9  | CoPb 9181 x<br>Co 89029       | 24.5 | 28   | 26   | 22.54 | 22.1 -<br>23.3 | 6.67  | 2.0 -<br>10.0 | 2.66 | 2.2-<br>3.1  | 9  |
| 10 | LG 95053 X<br>Co 87268        | 25   | 72   | 56   | 22.39 | 21.2 -<br>24.1 | 9.4   | 5.0 -<br>16.0 | 2.32 | 1.9-<br>2.8  | 10 |
| 11 | Co 0237 x<br>ISH 69           | 16.5 | 14   | 11   | -     | -              | -     | -             | -    | -            | -  |
| 12 | CoH 160 x<br>Co 62198         | 18   | 2    | 1    | -     | -              | -     | -             | -    | -            | -  |
| 13 | CoH 56 X<br>ISH 69            | 11.5 | 6    | 6    | 23    | 23             | 8     | 8             | 2.7  | 2.7          | 1  |
| 14 | CoH 104 X<br>ISH 69           | 28   | 170  | 97   | 20.66 | 19.0 -<br>24.0 | 10.26 | 3.0 -<br>24.0 | 2.24 | 1.8-<br>3.2  | 27 |
| 15 | CoH 128 x<br>Co 06037         | 33   | 2    | 2    | -     | -              | -     | -             | -    | -            | -  |
| 16 | Co 86002 X<br>CoS 96260       | 36.5 | 1002 | 824  | 22.27 | 20.3 -<br>24.2 | 5.83  | 2.0 -<br>21.0 | 2.61 | 2.1-<br>3.3  | 47 |
| 17 | CoH 119 X<br>Co 62198         | 43   | 10   | 10   | 21.2  | 21.2           | 8     | 8             | 2.2  | 2.2          | 1  |
| 18 | CoJ 64 X Co<br>87268          | 18.5 | 30   | 25   | 21.33 | 21.1 -<br>22.0 | 6.67  | 4.0 -<br>12.0 | 2.57 | 2.3-<br>2.8  | 6  |
| 19 | CoPant<br>84212 x<br>CoH 70   | 25.5 | 190  | 161  | 21.87 | 20.3 -<br>23.2 | 9.54  | 2.2 -<br>18.0 | 2.66 | 2.2-<br>3.2  | 13 |
| 20 | Co 86032 x<br>CoPant<br>97222 | 7    | 0    | 0    | -     | -              | -     | -             | -    | -            | -  |
| 21 | Co 237 GC                     | 44.5 | 196  | 142  | 22.07 | 21.2 -<br>23.2 | 10.1  | 6.0 -<br>20.0 | 2.17 | 1.8-<br>2.6  | 10 |
| 22 | Co 1148 GC                    | 35.5 | 493  | 237  | 21.94 | 21.2 -<br>23.2 | 9.5   | 6.0 -<br>17.0 | 2.32 | 2.0-<br>2.8  | 10 |
| 23 | Co 89003<br>GC                | 24   | 1569 | 1267 | 22.16 | 20.1 -<br>24.3 | 6.56  | 2.0 -<br>15.0 | 2.53 | 2.0-<br>3.1  | 77 |
| 24 | Co 86036<br>GC                | 28.5 | 525  | 274  | 22.37 | 22.2 -<br>23.1 | 5.17  | 2.0 -<br>10.0 | 2.58 | 2.0-<br>3.2  | 6  |
| 25 | CoH 102<br>GC                 | 7    | 64   | 54   | 23.49 | 22.2 -<br>25.0 | 5.44  | 3.0 -<br>12.0 | 2.41 | 2.0 -<br>3.2 | 18 |
| 26 | CoH 160<br>GC                 | 5    | 175  | 160  | 23.16 | 22.2 -<br>25.0 | 6.75  | 3.0 -<br>11.0 | 2.33 | 1.9 -<br>2.9 | 12 |
| 27 | CoH 167<br>GC                 | 28.5 | 323  | 194  | 22.71 | 22.2 -<br>24.1 | 4.82  | 2.0 - 8.0     | 2.48 | 2.0 -<br>2.8 | 17 |
| 28 | CoH 76 GC                     | 44   | 235  | 137  | 22.46 | 22.1 -<br>23.2 | 5.86  | 3.0 -<br>15.0 | 2.56 | 2.2 -<br>2.8 | 8  |
| 29 | CoJ 64 GC                     | 6    | 3    | 3    | -     | -              | -     | -             | -    | -            | -  |
| 30 | CoJ 88 GC                     | 17   | 82   | 79   | 22.29 | 20.0 -<br>24.1 | 7.19  | 3.0 -<br>15.0 | 2.33 | 1.8 -<br>2.7 | 21 |
| 31 | CoPb 9181                     | 28   | 116  | 75   | 22.37 | 22.1 -         | 6.67  | 5.0 - 9.0     | 2.6  | 2.5 -        | 6  |

|    |              |             |              |             |       |             |      |            |      |           |            |
|----|--------------|-------------|--------------|-------------|-------|-------------|------|------------|------|-----------|------------|
|    | GC           |             |              |             |       | 23.1        |      |            |      | 2.8       |            |
| 32 | CoS 8279 GC  | 10.5        | 481          | 448         | 22.15 | 21.2 - 24.1 | 5.59 | 2.0 - 10.0 | 2.41 | 1.6 - 3.0 | 22         |
| 33 | CoS 8436 GC  | 19.5        | 500          | 260         | 22.54 | 22.2 - 23.7 | 7.16 | 3.0 - 14.0 | 2.58 | 2.0 - 3.2 | 25         |
| 34 | CoS 97261 GC | 9           | 92           | 89          | 22.17 | 22.1 - 22.2 | 6.67 | 2.0 - 8.0  | 2.7  | 2.1 - 2.6 | 3          |
| 35 | CoH 106 GC   | 40          | 85           | 48          | 22.23 | 22.1 - 22.3 | 7    | 3.0 - 11.0 | 2.65 | 2.2 - 3.1 | 4          |
| 36 | Co 9022 GC   | 28          | 264          | 250         | 22.49 | 21.2 - 24.1 | 6.65 | 3.0 - 13.0 | 2.41 | 2.2 - 2.7 | 17         |
| 37 | CoH 104 GC   | 16          | 411          | 337         | 22.73 | 21.2 - 24.1 | 5.83 | 3.0 - 12.0 | 2.45 | 2.0 - 3.2 | 42         |
| 38 | CoH 104 GC   | 26          | 450          | 211         | 22.71 | 22.1 - 24.2 | 7.09 | 2.0 - 17.0 | 2.37 | 1.9 - 2.8 | 22         |
| 39 | CoH 133 GC   | 33          | 333          | 248         | 22.53 | 19.4 - 26.0 | 5.79 | 2.0 - 11.0 | 2.57 | 2.1 - 3.5 | 39         |
| 40 | CoL 29 GC    | 12.5        | 45           | 39          | 23.25 | 23.1 - 23.4 | 8    | 7.0 - 9.0  | 2.25 | 2.2 - 2.3 | 2          |
| 41 | CoH 99GC     | 9.5         | 112          | 103         | 23.81 | 22.2 - 25.1 | 5.9  | 2.0-11.0   | 2.44 | 2.0-3.1   | 10         |
| 42 | Co 98003 GC  | 12          | 183          | 178         | 22.48 | 22.2 - 23.3 | 4.5  | 2.0 - 7.0  | 2.6  | 2.2 - 3.0 | 12         |
| 43 | CoH 128 GC   | 26          | 134          | 79          | 23.3  | 23.3        | 7    | 7          | 2.3  | 2.3       | 1          |
| 44 | CoH 12GC     | 59          | 358          | 178         | 20.83 | 18.2 - 23.1 | 11   | 4.0 - 17.0 | 2.27 | 2.1 - 2.4 | 3          |
| 45 | CoH 10262 GC | 37.5        | 421          | 320         | 22.13 | 19.2 - 25.1 | 8.77 | 3.0 - 22.0 | 2.37 | 1.9 - 3.2 | 30         |
| 46 | CoS 8119GC   | 98.5        | 622          | 334         | 21.67 | 20.0 - 24.0 | 7.14 | 3.0 - 12.0 | 2.41 | 2.0 - 3.2 | 22         |
| 47 | CoM 0265 PC  | 4.5         | 45           | 43          | 23.18 | 22.2 - 24.2 | 4.5  | 2.0 - 8.0  | 2.42 | 2.3 - 2.5 | 6          |
| 48 | Co 7201 PC   | 5.5         | 6            | 6           | 22.1  | 22.1        | 10   | 10         | 2.7  | 2.7       | 1          |
| 49 | CoV 89101 PC | 5.5         | 40           | 38          | 22.68 | 22.2 - 23.2 | 6    | 2.0 - 8.0  | 2.38 | 2.1-2.6   | 4          |
| 50 | CoJ 88 PC    | 7.5         | 82           | 78          | 22.88 | 21.2 - 26.1 | 6.67 | 3.0 - 12.0 | 2.36 | 1.9-2.6   | 12         |
| 51 | Co 118 PC    | 4.5         | 8            | 8           | 20.65 | 20.1 - 21.2 | 5    | 2.0 - 8.0  | 2.8  | 2.6-3.0   | 2          |
| 52 | CoS 8436PC   | 5.5         | 18           | 17          | -     | -           | -    | -          | -    | -         | -          |
| 53 | CoJ 83       | 7           | 22           | 20          | -     | -           | -    | -          | -    | -         | -          |
|    | <b>Total</b> | <b>1199</b> | <b>11033</b> | <b>7819</b> |       |             |      |            |      |           | <b>743</b> |

**Performance of crosses in first clonal trial:** One hundred seventy two clones of different kinds of crosses including, 6 general collections and 17 bi-parental crosses were evaluated in first clonal trial. No superior clone was selected from the four crosses viz. Co 98008 x CoS 510, Co89036 x CoS 510, CoH 92 x Co 775, CoH 110 x CoS 88216 and one general collection Co 0238 GC. A total number of 44 clones were selected from the 172 clones evaluated in the first clonal trial. Performance of crosses selected is given in the following table.

| Cross combination | Number of seedling | HR Brix (%) at 10 m | Cane Diameter (cm) | Number of millable cane (NMC) | Number of seedling selected |
|-------------------|--------------------|---------------------|--------------------|-------------------------------|-----------------------------|
|-------------------|--------------------|---------------------|--------------------|-------------------------------|-----------------------------|



|                        | g<br>plante<br>d | Mea<br>n | Range       | Mea<br>n | Rang<br>e | Mean | Range    |           |
|------------------------|------------------|----------|-------------|----------|-----------|------|----------|-----------|
| CoC 671 x CoPant 97222 | 48               | 21.3     | 17.0 - 25.8 | 2.6      | 2.0-3.2   | 8.1  | 4.0-10.0 | 12        |
| CoA 13327 x LG 05434   | 35               | 17.7     | 15.0 - 21.0 | 2.5      | 1.9-3.0   | 7.4  | 6.0-11.0 | 4         |
| CoS 8436 x Bo 130      | 14               | 18.7     | 16.0 - 21.6 | 2.4      | 2.0-2.7   | 8.6  | 6.0-12.0 | 4         |
| CoH 104 x Co 89003     | 8                | 20.2     | 17.0 - 22.1 | 2.6      | 2.0-3.4   | 7.0  | 5.0-9.0  | 6         |
| Co 98008 x CoS 510     | 7                | 18.2     | 17.3 - 19.2 | -        | -         | -    | -        | 0         |
| CoS 8436 x CoH 70      | 16               | 17.1     | 15.3 - 20.1 | 3.0      | 2.8-3.2   | 8.0  | 7.0-9.0  | 2         |
| Co 0238 x Co 0209      | 7                | 19.9     | 17.5 - 22.4 | 2.5      | 2.0-2.7   | 8.2  | 8.0-10.0 | 3         |
| Co 0237 x CoH 15       | 19               | 19.1     | 15.6 - 22.3 | 2.7      | 2.4-3.1   | 7.8  | 6.0-13.0 | 7         |
| CoH 160 x Co 62198     | 1                | 20.8     | 20.8        | 2.7      | 2.7       | 6.0  | 6.0      | 1         |
| Co89036 x CoS 510      | 5                | 17.8     | 16.5 - 20.2 | -        | -         | -    | -        | 0         |
| CoH 92 x Co 775        | 2                | 17.8     | 17.1 - 18.5 | -        | -         | -    | -        | 0         |
| CoH 76 x Co 775        | 1                | 21.3     | 21.3        | 2.9      | 2.9       | 8.0  | 8.0      | 1         |
| CoH 110 x CoS 88216    | 1                | 17.3     | 17.3        | -        | -         | -    | -        | 0         |
| Co 0238 x CoPant 97222 | 1                | 21.1     | 21.1        | 3.0      | 3.0       | 11.0 | 11.0     | 1         |
| CoS 10239 GC           | 4                | 18.2     | 16.8 - 20.3 | 3.0      | 2.8-3.2   | 8.0  | 8.0-10.0 | 2         |
| Co 0238 GC             | 1                | 21.1     | 21.1        | -        | -         | -    | -        | 0         |
| CoLk 94184 GC          | 2                | 19.6     | 22.1-23.3   | 2.8      | 2.8       | 7.0  | 7.0      | 1         |
| Total                  | <b>172</b>       |          |             |          |           |      |          | <b>44</b> |

**Performance of crosses in second clonal trial (2020-21):** The centre did not participate in hybridization programme during 2016 flowering season. The fluff was not received from National hybridization programme during 2017. Therefore, second clonal selection trial was not evaluated at centre.

## 6.2.2.4 North Central Zone

### 6.2.2.4.1 Bethuadahari

Performance of crosses in first clonal trial(2020-21) crosses made during 2018.

| Cross combination     | No of clones planted | HR brix at 8 <sup>th</sup> month |           | HR brix at 10 <sup>th</sup> month |           | HR brix at 12 <sup>th</sup> month |           | Number of millable canes (NMC) |       | Cane diameter (cm) |           | No. of clones selected |
|-----------------------|----------------------|----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|--------------------------------|-------|--------------------|-----------|------------------------|
|                       |                      | Mean                             | Range     | Mean                              | Range     | Mean                              | Range     | Mean                           | Range | Mean               | Range     |                        |
| CoT11153x CoPant97222 | 3                    | 17.3                             | 17.0-17.6 | 18.0                              | 17.8-18.2 | 19.4                              | 18.5-20.2 | 15.0                           | 13-18 | 1.96               | 1.81-2.12 | 1                      |
| CoLk94184 xCoH70      | 31                   | 16.4                             | 15.8-17.2 | 17.7                              | 17.0-18.5 | 19.1                              | 18.3-20.6 | 14.3                           | 11-18 | 1.77               | 1.55-2.13 | 7                      |
| CoLk94184             | 6                    | 15.2                             | 15.0-     | 16.8                              | 16.2-     | 17.9                              | 17.5-     | 12.5                           | 10-14 | 1.63               | 1.51-     | 0                      |

|                           |     |      |               |      |               |      |               |      |       |      |               |    |
|---------------------------|-----|------|---------------|------|---------------|------|---------------|------|-------|------|---------------|----|
| xCo97015                  |     |      | 15.9          |      | 17.5          |      | 18.6          |      |       |      | 1.79          |    |
| CoN05071<br>x Co12014     | 2   | 16.4 | 16.2-<br>16.6 | 17.5 | 17.4-<br>17.6 | 18.2 | 18.0-<br>18.4 | 13.5 | 13-14 | 1.67 | 1.65-<br>1.69 | 0  |
| Co0238xCo<br>H70)         | 11  | 16.2 | 15.4-<br>18.3 | 16.3 | 16.0-<br>20.5 | 18.5 | 16.8-<br>21.6 | 15.6 | 13-20 | 1.70 | 1.51-<br>2.02 | 1  |
| CoH119xCo<br>775)         | 53  | 15.7 | 14.2-<br>18.4 | 16.6 | 15.4-<br>20.2 | 17.5 | 16.0-<br>22.8 | 13.3 | 9-21  | 1.62 | 1.41-<br>2.27 | 13 |
| Co98010xC<br>oA7602)      | 17  | 16.1 | 15.6-<br>18.0 | 17.3 | 16.2-<br>19.5 | 18.2 | 17.0-<br>21.2 | 14.6 | 10-19 | 1.67 | 1.48-<br>2.03 | 2  |
| CoBln0317<br>4xCoH70)     | 2   | 15.4 | 15.2-<br>15.6 | 16.5 | 16.4-<br>16.6 | 17.3 | 17.0-<br>17.6 | 10.5 | 10-11 | 1.61 | 1.57-<br>1.65 | 0  |
| 85R186xCo<br>86011)       | 31  | 16.4 | 14.2-<br>17.5 | 17.8 | 16.0-<br>20.2 | 18.5 | 16.9-<br>21.4 | 13.3 | 9-20  | 1.66 | 1.48-<br>2.10 | 3  |
| Co92006xC<br>o1148)       | 289 | 15.2 | 13.4-<br>17.3 | 16.8 | 15.2-<br>19.8 | 17.3 | 16.2-<br>22.8 | 12.8 | 7-22  | 1.71 | 1.59-<br>2.26 | 30 |
| CoV06356x<br>BO155)       | 113 | 15.9 | 14.9-<br>17.4 | 16.5 | 15.0-<br>19.5 | 17.7 | 16.2-<br>22.6 | 11.3 | 6-18  | 1.64 | 1.44-<br>2.19 | 17 |
| Co86249xC<br>o97015)      | 75  | 16.1 | 14.2-<br>17.0 | 16.8 | 15.4-<br>19.5 | 17.6 | 16.0-<br>22.8 | 12.4 | 5-22  | 1.59 | 1.42-<br>2.13 | 9  |
| Co98006xC<br>oS96275)     | 1   | 16.2 | 16.2-<br>16.2 | 17.0 | 17.0-<br>17.0 | 17.6 | 17.6-<br>17.6 | 11.0 | 11-11 | 1.61 | 1.61-<br>1.61 | 0  |
| Co93009xC<br>o775)        | 11  | 16.9 | 16.2-<br>17.6 | 17.8 | 17.0-<br>19.2 | 18.4 | 17.6-<br>21.2 | 14.9 | 10-18 | 1.75 | 1.69-<br>2.15 | 6  |
| CoC85061x<br>CoA12322)    | 39  | 15.6 | 14.2-<br>16.5 | 16.3 | 15.6-<br>18.8 | 17.2 | 16.4-<br>20.4 | 13.7 | 10-17 | 1.57 | 1.39-<br>1.98 | 3  |
| NB94-<br>545xCo920<br>13) | 34  | 16.2 | 14.6-<br>17.6 | 16.9 | 15.5-<br>20.0 | 17.8 | 16.4-<br>22.4 | 11.6 | 8-16  | 1.74 | 1.51-<br>2.28 | 6  |
| CoOr04152<br>xCoA7602)    | 2   | 16.1 | 15.8-<br>16.4 | 16.9 | 16.6-<br>17.2 | 17.7 | 17.0-<br>18.4 | 10.5 | 9-12  | 1.58 | 1.52-<br>1.64 | 0  |
| 97R129xIS<br>H69)         | 3   | 16.3 | 15.8-<br>16.7 | 17.2 | 16.4-<br>17.9 | 17.8 | 17.6-<br>18.0 | 13.0 | 11-16 | 1.61 | 1.57-<br>1.66 | 0  |
| Co0118xCo<br>Se92423)     | 8   | 16.6 | 16.2-<br>17.2 | 17.9 | 17.2-<br>18.5 | 19.3 | 18.0-<br>21.8 | 14.5 | 12-19 | 1.73 | 1.65-<br>2.24 | 3  |
| BO91xCoPa<br>nt84212)     | 40  | 15.7 | 14.2-<br>16.0 | 16.5 | 15.4-<br>17.3 | 17.2 | 16.2-<br>19.4 | 13.0 | 9-18  | 1.61 | 1.46-<br>1.87 | 1  |
| BO91xCo11<br>48)          | 199 | 15.9 | 13.8-<br>17.4 | 16.6 | 15.0-<br>19.4 | 17.3 | 15.8-<br>22.8 | 10.7 | 6-23  | 1.57 | 1.38-<br>2.19 | 18 |
| CoM0265<br>PC             | 19  | 16.6 | 15.8-<br>17.8 | 17.9 | 16.4-<br>19.6 | 19.4 | 18.0-<br>22.6 | 15.5 | 11-23 | 1.83 | 1.63-<br>2.33 | 6  |
| Co7201 PC                 | 16  | 15.8 | 14.4-<br>16.9 | 16.7 | 16.0-<br>19.3 | 18.4 | 17.1-<br>21.4 | 13.3 | 9-18  | 1.67 | 1.48-<br>2.20 | 2  |
| CoV89101<br>PC            | 29  | 15.9 | 14.6-<br>17.2 | 16.8 | 15.6-<br>19.2 | 18.1 | 17.0-<br>22.9 | 12.7 | 8-20  | 1.73 | 1.59-<br>2.03 | 4  |
| CoJ88 PC                  | 40  | 16.4 | 14.8-<br>18.0 | 17.5 | 15.9-<br>20.3 | 18.3 | 17.2-<br>23.4 | 15.6 | 12-22 | 1.64 | 1.46-<br>2.37 | 10 |
| Co0118 PC                 | 2   | 15.8 | 15.4-<br>16.2 | 16.5 | 16.2-<br>16.8 | 17.6 | 17.4-<br>17.8 | 11.0 | 9-13  | 1.53 | 1.46-<br>1.61 | 0  |
| CoS9436<br>PC             | 4   | 15.9 | 15.4-<br>16.3 | 17.1 | 16.2-<br>18.3 | 17.9 | 16.9-<br>20.2 | 12.3 | 10-15 | 1.69 | 1.53-<br>1.88 | 1  |
| Co0238 PC                 | 3   | 16.5 | 16.2-<br>16.9 | 17.8 | 17.1-<br>18.7 | 19.1 | 18.3-<br>20.1 | 13.3 | 12-15 | 1.77 | 1.70-<br>1.89 | 1  |
| CoJ83 GC                  | 12  | 16.7 | 16.0-<br>17.9 | 18.0 | 17.2-<br>20.0 | 19.2 | 18.2-<br>21.5 | 15.4 | 13-19 | 1.85 | 1.78-<br>2.33 | 4  |
| CoA10321<br>GC            | 3   | 15.6 | 15.0-<br>16.4 | 16.8 | 16.1-<br>17.9 | 17.7 | 17.2-<br>18.4 | 11.7 | 9-13  | 1.57 | 1.49-<br>1.66 | 0  |
| CoH119 GC                 | 10  | 15.5 | 14.8-<br>16.4 | 16.3 | 15.6-<br>17.3 | 17.3 | 16.7-<br>18.2 | 12.0 | 7-16  | 1.62 | 1.46-<br>1.77 | 0  |
| BO91 GC                   | 360 | 15.9 | 14.4-<br>18.2 | 17.1 | 15.5-<br>21.4 | 18.3 | 16.3-<br>23.7 | 13.6 | 6-25  | 1.73 | 1.41-<br>2.31 | 21 |
| Co1158 GC                 | 5   | 14.3 | 13.9-<br>16.0 | 16.2 | 15.4-<br>17.3 | 17.0 | 16.1-<br>18.2 | 10.6 | 9-12  | 1.59 | 1.43-<br>1.72 | 0  |
| CoA7602<br>GC             | 10  | 16.1 | 14.8-<br>17.2 | 17.6 | 16.0-<br>19.0 | 18.8 | 17.3-<br>20.4 | 12.9 | 10-17 | 1.67 | 1.55-<br>1.83 | 1  |
| LG07615                   | 84  | 15.7 | 14.3-         | 17.1 | 15.6-         | 17.9 | 16.4-         | 11.8 | 6-19  | 1.61 | 1.49-         | 5  |

|                   |    |      |               |      |               |      |               |      |       |      |               |    |
|-------------------|----|------|---------------|------|---------------|------|---------------|------|-------|------|---------------|----|
| GC                |    |      | 17.4          |      | 19.5          |      | 20.6          |      |       |      | 2.07          |    |
| CoBln0317<br>3 GC | 23 | 15.4 | 14.8-<br>17.2 | 16.5 | 15.6-<br>19.1 | 17.8 | 16.6-<br>19.9 | 9.7  | 5-13  | 1.54 | 1.36-<br>1.87 | 1  |
| CoBln0550<br>1 GC | 30 | 14.9 | 13.2-<br>16.6 | 15.5 | 14.4-<br>18.0 | 16.8 | 15.9-<br>19.4 | 11.1 | 4-14  | 1.57 | 1.36-<br>1.79 | 1  |
| Co05010<br>GC     | 1  | 16.6 | 16.6-<br>16.6 | 18.2 | 18.2-<br>18.2 | 19.5 | 19.5-<br>19.5 | 14.0 | 14-14 | 1.86 | 1.86-<br>1.86 | 1  |
| CP62-23<br>GC     | 6  | 16.3 | 15.8-<br>16.6 | 17.1 | 16.5-<br>17.4 | 17.6 | 16.9-<br>17.9 | 9.5  | 6-13  | 1.52 | 1.47-<br>1.58 | 0  |
| CoBln9104<br>GC   | 2  | 15.4 | 15.0-<br>15.8 | 16.5 | 16.2-<br>16.8 | 17.4 | 17.3-<br>17.5 | 12.5 | 12-13 | 1.73 | 1.69-<br>1.77 | 0  |
| BO155 GC          | 57 | 16.2 | 14.6-<br>17.5 | 17.3 | 15.8-<br>19.9 | 18.6 | 17.0-<br>23.4 | 13.6 | 8-21  | 1.64 | 1.52-<br>2.37 | 15 |
| CoP11436<br>GC    | 4  | 14.7 | 13.5-<br>15.6 | 15.9 | 14.8-<br>17.2 | 17.0 | 15.9-<br>18.0 | 13.0 | 10-15 | 1.57 | 1.41-<br>1.70 | 0  |
| CoH13 GC          | 2  | 17.3 | 17.2-<br>17.4 | 18.9 | 18.7-<br>19.1 | 20.2 | 20.0-<br>20.4 | 16.0 | 14-18 | 1.85 | 1.81-<br>1.89 | 2  |
| CoSe92423<br>GC   | 16 | 15.3 | 14.4-<br>16.6 | 16.7 | 15.5-<br>18.1 | 17.4 | 16.6-<br>19.8 | 12.8 | 9-17  | 1.54 | 1.39-<br>1.83 | 1  |
| CoP02182<br>GC    | 9  | 15.5 | 14.2-<br>16.4 | 16.3 | 15.0-<br>16.9 | 17.2 | 16.0-<br>18.0 | 8.7  | 4-11  | 1.64 | 1.55-<br>1.73 | 0  |
| CoLk96029<br>GC   | 28 | 16.7 | 16.2-<br>17.8 | 18.1 | 17.3-<br>20.2 | 19.7 | 18.6-<br>22.2 | 14.9 | 12-20 | 1.79 | 1.58-<br>2.11 | 9  |
| LG06839<br>GC     | 1  | 15.8 | 15.8-<br>15.8 | 16.5 | 16.5-<br>16.5 | 17.4 | 17.4-<br>17.4 | 7.0  | 7-7   | 1.49 | 1.49-<br>1.49 | 0  |

Performance of crosses in second clonal trial(2020-21)

| Cross combination                | No. of clones planted | No. of clones with > 20% sucrose at 240 days | No. of clones with > 22 % sucrose at 300 days | No of clones with > 22% sucrose at 360 days | No. of clones with > 70NMC /20'row | No. of clones with > 2.5 cm cane thickness | No. of red rot resistant clones | No. of clones selected |
|----------------------------------|-----------------------|--|---|---|------------------------------------|--|---------------------------------|------------------------|
| Cross No-516 (Co 94012 X ISH 41) | 1                     | 0  | 0   | 0   | 0                                  | 1  | 0                               | 0                      |
| GC1- LG 05828                    | 1                     | 0  | 0   | 0   | 0                                  | 0  | 0                               | 0                      |
| GC4- Co 0235                     | 9                     | 1  | 1   | 1   | 3                                  | 4  | 5                               | 5                      |
| GC5- Co 04602                    | 7                     | 0  | 0   | 1   | 2                                  | 2  | 2                               | 2                      |
| GC6- Co 7201                     | 9                     | 0  | 1   | 0   | 2                                  | 2  | 4                               | 4                      |
| GC7- LG 04605                    | 17                    | 1  | 2   | 0   | 2                                  | 3  | 5                               | 5                      |
| GC8- Co 200-10                   | 1                     | 0  | 0   | 0   | 0                                  | 0  | 0                               | 0                      |
| GC9- CoLk 7901                   | 1                     | 0  | 0   | 0   | 0                                  | 1  | 1                               | 1                      |
| GC10- LG 07650                   | 1                     | 0  | 0   | 0   | 1                                  | 0  | 0                               | 1                      |
| GC12- BO 155                     | 1                     | 0  | 0   | 0   | 0                                  | 0  | 0                               | 0                      |

6.2.2.4.2 Pusa

Performance of crosses in ground nursery

| Cross combination    | Total no. of seedlings evaluated | HR brix (%) |           | Number of millable canes (NMC) |            | Cane diameter (cm) |           | No. of seedlings selected |
|----------------------|----------------------------------|-------------|-----------|--------------------------------|------------|--------------------|-----------|---------------------------|
|                      |                                  | Mean        | Range     | Mean                           | Range      | Mean               | Range     |                           |
| CoSe 92423 X Co11015 | 240                              | 20.2        | 18.2-22.2 | 6.00                           | 3.00-9.00  | 2.40               | 1.60-2.80 | 96                        |
| CoC 671 X BO 155     | 016                              | 20.8        | 17.8-23.8 | 7.00                           | 3.00-11.00 | 2.20               | 1.70-3.10 | 06                        |
| BO 154 X Co 62198    | 350                              | 20.2        | 16.8-23.6 | 6.00                           | 3.00-9.00  | 2.10               | 1.40-2.80 | 104                       |
| BO 102 X Co 775      | 005                              | 20.5        | 17.3-23.7 | 5.00                           | 3.00-7.00  | 2.30               | 1.40-3.20 | 01                        |

|                        |     |      |           |      |            |      |           |    |
|------------------------|-----|------|-----------|------|------------|------|-----------|----|
| CoV 98101 X BO 155     | 020 | 20.6 | 17.5-23.7 | 6.00 | 4.00-8.00  | 2.30 | 1.30-3.30 | 06 |
| CoSe 92423 X CoV 14061 | 050 | 20.4 | 15.6-23.2 | 7.00 | 3.00-11.00 | 2.40 | 1.60-3.20 | 32 |
| CoC 671 X CoSe 92423   | 081 | 20.8 | 17.8-23.8 | 6.00 | 3.00-9.00  | 2.40 | 1.70-3.10 | 38 |
| BO139 X CoS 767        | 009 | 20.6 | 18.2-23.0 | 7.00 | 4.00-10.00 | 2.40 | 1.70-3.10 | 02 |
| CoM 6806 X BO 155      | 012 | 20.8 | 18.2-23.4 | 7.00 | 3.00-11.00 | 2.50 | 1.90-3.10 | 03 |
| BO92 X NCO 310         | 031 | 20.4 | 17.4-23.4 | 6.00 | 4.00-8.00  | 2.30 | 1.70-2.90 | 09 |
| Co 0238 X BO 130       | 016 | 20.2 | 18.2-22.2 | 6.00 | 3.00-9.00  | 2.40 | 1.50-3.30 | 07 |
| BO 91 X Co 775         | 028 | 20.8 | 18.2-23.4 | 6.00 | 3.00-9.00  | 2.40 | 1.70-3.10 | 14 |
| Co 92006 X CoS 8436    | 031 | 20.6 | 18.4-22.8 | 7.00 | 3.00-11.00 | 2.40 | 1.50-3.30 | 14 |
| CoV 14061 X CoSe 92423 | 054 | 21.0 | 18.2-23.8 | 7.00 | 4.00-10.00 | 2.40 | 1.60-2.80 | 37 |
| CoV 14061 X Co 97015   | 007 | 19.4 | 17.8-21.0 | 7.00 | 4.00-10.00 | 2.30 | 1.60-3.00 | 03 |
| Co 09201 X BO 130      | 009 | 20.1 | 18.2-22.0 | 7.00 | 3.10-6.90  | 2.70 | 1.80-3.60 | 02 |
| CoH160 X Co 775        | 013 | 19.8 | 17.8-21.8 | 5.00 | 3.00-9.00  | 2.50 | 1.80-3.20 | 02 |
| CoP 06436 X Co62198    | 054 | 19.5 | 18.4-20.6 | 6.00 | 4.00-10.00 | 2.40 | 1.70-3.10 | 21 |
| Co 0238 X BO 155       | 022 | 20.0 | 18.0-22.0 | 7.00 | 3.00-7.00  | 2.80 | 1.80-3.80 | 12 |
| BO 92 X Co 775         | 063 | 19.8 | 18.2-21.4 | 5.00 | 4.50-9.50  | 2.40 | 1.60-3.20 | 35 |
| CoLk 94184 X Co 8353   | 008 | 19.2 | 17.6-20.8 | 7.00 | 3.00-11.00 | 2.30 | 1.50-3.10 | 01 |
| BO 108 X Co 92006      | 019 | 19.6 | 17.8-21.4 | 6.00 | 3.50-8.50  | 2.40 | 1.70-3.10 | 08 |
| BO 130 X Co 62198      | 006 | 19.0 | 17.6-20.4 | 7.00 | 3.50-10.50 | 2.40 | 1.5-3.3   | 01 |
| BO 108 GC's            | 097 | 20.2 | 18.0-22.4 | 6.00 | 3.00-9.00  | 2.30 | 1.6-3.0   | 40 |
| BO 128 GC's            | 032 | 20.6 | 18.2-23.0 | 7.00 | 4.50-9.50  | 2.40 | 1.6-3.2   | 12 |
| BO 130 GC's            | 042 | 19.5 | 17.8-21.2 | 7.00 | 3.00-11.00 | 2.30 | 1.4-3.2   | 20 |
| BO 137 GC's            | 079 | 19.8 | 18.0-21.6 | 6.00 | 4.00-8.00  | 2.40 | 1.5-3.30  | 29 |
| BO 139 GC's            | 026 | 19.8 | 18.4-21.2 | 5.00 | 3.00-7.00  | 2.60 | 1.9-3.3   | 14 |
| BO 146 GC's            | 037 | 19.6 | 18.2-21.4 | 7.00 | 4.00-10.00 | 2.50 | 1.7-3.3   | 11 |
| BO 155 GC's            | 015 | 20.0 | 18.8-21.2 | 5.00 | 4.00-6.00  | 2.60 | 1.8-3.4   | 05 |
| CoP 9206 GC's          | 063 | 19.2 | 17.6-20.8 | 7.00 | 3.50-10.50 | 2.50 | 1.8-3.2   | 15 |
| CoP 12436 GC's         | 011 | 20.2 | 18.2-22.2 | 5.00 | 3.00-7.00  | 2.40 | 1.6-3.2   | 05 |
| CoP 3181 GC's          | 042 | 19.8 | 18.0-21.6 | 6.00 | 4.00-8.00  | 2.40 | 1.7-3.1   | 23 |
| Co 8371 GC's           | 006 | 19.8 | 18.4-21.2 | 7.00 | 3.00-11.00 | 2.30 | 1.7-2.9   | 03 |
| Co 94008 GC's          | 005 | 19.6 | 17.8-21.8 | 7.00 | 4.00-10.00 | 2.40 | 1.8-3.0   | 01 |
| Co 0120 GC's           | 038 | 20.2 | 18.4-22.0 | 6.00 | 4.50-7.50  | 2.40 | 1.7-3.1   | 15 |
| Co 8353 GC's           | 062 | 19.2 | 18.2-20.2 | 7.00 | 4.50-9.50  | 2.40 | 1.6-3.2   | 18 |
| Co 7201 GC's           | 009 | 20.1 | 18.0-22.2 | 8.00 | 5.00-11.00 | 2.50 | 1.6-3.4   | 03 |
| CoV 8901 GC's          | 003 | 19.6 | 17.8-4.21 | 6.00 | 3.00-9.00  | 2.40 | 1.5-3.3   | 01 |
| CoSe 92423 GC's        | 017 | 20.2 | 18.4-22.0 | 7.00 | 4.00-10.00 | 2.40 | 1.8-3.0   | 06 |
| NCo 310 GC's           | 024 | 19.4 | 16.2-22.6 | 6.00 | 4.00-8.00  | 2.40 | 1.5-3.3   | 13 |
| Co 7201 PC's           | 004 | 19.6 | 18.2-21.0 | 6.00 | 4.00-8.00  | 2.40 | 1.6-3.2   | 02 |
| CoJ 88 PC's            | 008 | 20.0 | 17.5-     | 6.00 | 3.00-9.00  | 2.70 | 1.85-3.6  | 02 |
| CoJ 83 PC's            | 006 | 20.0 | 18.8-21.2 | 5.00 | 4.00-6.00  | 2.60 | 1.8-3.4   | 02 |
| CoM 0265 PC's          | 018 | 19.2 | 17.6-20.8 | 7.00 | 3.50-10.50 | 2.50 | 1.8-3.2   | 06 |
| Co 0238 PC's           | 004 | 20.2 | 18.2-22.2 | 5.00 | 3.00-7.00  | 2.40 | 1.6-3.2   | 01 |
| CoS 8436 PC's          | 005 | 19.8 | 18.0-21.6 | 6.00 | 4.00-8.00  | 2.40 | 1.7-3.1   | 01 |
| CoP 12436 FC's         | 009 | 19.8 | 18.4-21.2 | 7.00 | 3.00-11.00 | 2.30 | 1.7-2.9   | 02 |
| BO 128 FC's            | 007 | 19.2 | 18.2-20.2 | 7.00 | 4.50-9.50  | 2.40 | 1.6-3.2   | 03 |

### Performance of crosses in first clonal trial

| Cross combination   | No. of seedlings Planned | HR brix at 8 <sup>th</sup> month |           | HR brix at 10 <sup>th</sup> month |           | HR brix at 12 <sup>th</sup> month |           | Number of millable canes (NMC) |           | Cane diameter (cm) |         | No. of seedlings selected |
|---------------------|--------------------------|----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|--------------------------------|-----------|--------------------|---------|---------------------------|
|                     |                          | Mean                             | Range     | Mean                              | Range     | Mean                              | Range     | Mean                           | Range     | Mean               | Range   |                           |
| Co09022XBO154       | 61                       | 17.8                             | 15.2-20.8 | 18.8                              | 16.4-22.2 | 22.4                              | 19.4-26.4 | 5.0                            | 3.00-7.00 | 2.3                | 1.4-3.2 | 23                        |
| BO91XC087268        | 25                       | 17.6                             | 15.6-19.6 | 19.2                              | 16.8-21.6 | 21.8                              | 18.8-24.8 | 5.0                            | 4.00-6.00 | 2.1                | 1.6-2.6 | 12                        |
| CoA13327X BO154     | 23                       | 17.4                             | 15.0-19.8 | 19.2                              | 16.4-22.0 | 20.6                              | 18.2-23.0 | 5.0                            | 3.00-7.00 | 2.4                | 1.7-3.1 | 06                        |
| BO146XCo1148        | 01                       | 18.0                             | 16.6-19.4 | 20.1                              | 17.0-23.2 | 20.8                              | 19.2-22.4 | 6.0                            | 3.00-9.00 | 2.0                | 1.3-2.7 | 00                        |
| Co1158XBO130        | 11                       | 16.5                             | 14.6-18.4 | 17.8                              | 15.6-20.0 | 20.6                              | 18.6-22.6 | 5.0                            | 4.00-6.00 | 2.4                | 1.5-3.3 | 02                        |
| BO155XBO91          | 03                       | 16.8                             | 15.4-18.2 | 17.6                              | 15.0-20.2 | 20.2                              | 18.2-22.2 | 6.0                            | 3.00-9.00 | 2.2                | 1.5-2.9 | 00                        |
| CoPant84212xCo62198 | 11                       | 17.5                             | 15.2-19.8 | 18.8                              | 15.4-22.2 | 20.4                              | 18.4-22.4 | 5.0                            | 3.00-7.00 | 2.3                | 1.4-3.2 | 03                        |
| CoLk8102x BO130     | 04                       | 16.8                             | 14.8-18.8 | 19.0                              | 17.2-20.8 | 20.3                              | 19.0-21.6 | 7.0                            | 5.00-9.00 | 2.3                | 1.6-3.0 | 00                        |
| BO102xCo775         | 75                       | 18.2                             | 16.6-19.4 | 20.1                              | 17.0-23.2 | 20.8                              | 19.2-22.4 | 6.0                            | 3.00-9.00 | 2.0                | 1.3-2.7 | 04                        |
| CoH110x Co87268     | 02                       | 16.5                             | 14.6-18.4 | 17.8                              | 15.6-20.0 | 20.6                              | 18.6-22.6 | 5.0                            | 4.00-6.00 | 2.4                | 1.5-3.3 | 00                        |
| BO154xCo62198       | 03                       | 17.4                             | 15.0-19.8 | 19.2                              | 16.4-22.0 | 20.6                              | 18.2-23.0 | 5.0                            | 3.00-7.00 | 2.4                | 1.7-3.1 | 00                        |
| CoPb09181xCoH15     | 01                       | 17.5                             | 15.2-19.8 | 18.8                              | 15.4-22.2 | 20.4                              | 18.4-22.4 | 5.0                            | 3.00-7.00 | 2.3                | 1.4-3.2 | 00                        |
| Co0237x BO154       | 01                       | 17.6                             | 15.6-19.6 | 19.2                              | 16.8-21.6 | 20.8                              | 18.8-22.8 | 5.0                            | 4.00-6.00 | 2.1                | 1.6-2.6 | 00                        |
| CoC671X BO154       | 04                       | 17.2                             | 15.7-18.7 | 19.4                              | 16.2-22.6 | 20.8                              | 18.2-23.4 | 6.0                            | 4.00-8.00 | 2.4                | 1.5-3.3 | 00                        |
| CoP13436XCo356      | 02                       | 16.8                             | 14.6-19.0 | 18.8                              | 16.6-21.0 | 20.2                              | 17.8-22.6 | 7.0                            | 5.00-9.00 | 2.2                | 1.5-2.9 | 00                        |
| CoH160X Co62198     | 13                       | 17.6                             | 15.6-19.6 | 19.2                              | 16.8-21.6 | 20.8                              | 18.8-22.8 | 5.0                            | 4.00-6.00 | 2.1                | 1.6-2.6 | 05                        |
| CoPant84212X Co775  | 05                       | 17.2                             | 15.7-18.7 | 19.4                              | 16.2-22.6 | 20.8                              | 18.2-23.4 | 6.0                            | 4.00-8.00 | 2.4                | 1.5-3.3 | 01                        |
| CoP13436XCo8353     | 03                       | 16.8                             | 14.6-19.0 | 18.8                              | 16.6-21.0 | 20.2                              | 17.8-22.6 | 7.0                            | 5.00-9.00 | 2.2                | 1.5-2.9 | 00                        |
| Co8353x BO130       | 07                       | 16.8                             | 14.8-18.8 | 19.0                              | 17.2-20.8 | 20.3                              | 19.0-21.6 | 7.0                            | 5.00-9.00 | 2.3                | 1.6-3.0 | 01                        |
| CoP06436x Co62198   | 09                       | 18.0                             | 16.6-19.4 | 20.1                              | 17.0-23.2 | 20.8                              | 19.2-22.4 | 6.0                            | 3.00-9.00 | 2.0                | 1.3-2.7 | 00                        |
| CoP13438x Co1148    | 01                       | 17.4                             | 15.0-19.8 | 19.2                              | 16.4-22.0 | 20.6                              | 18.2-23.0 | 5.0                            | 3.00-7.00 | 2.4                | 1.7-3.1 | 00                        |
| Co09021xCoJ46       | 09                       | 16.8                             | 15.4-18.2 | 17.6                              | 15.0-20.2 | 20.2                              | 18.2-22.2 | 6.0                            | 3.00-9.00 | 2.2                | 1.5-2.9 | 04                        |
| BO154 FC            | 40                       | 17.5                             | 15.2-19.8 | 18.8                              | 15.4-22.2 | 20.4                              | 18.4-22.4 | 5.0                            | 3.00-7.00 | 2.3                | 1.4-3.2 | 14                        |
| Co0238 GC           | 06                       | 17.6                             | 15.6-19.6 | 19.2                              | 16.8-21.6 | 20.8                              | 18.8-22.8 | 5.0                            | 4.00-6.00 | 2.1                | 1.6-2.6 | 01                        |
| CoSe95422 GC        | 01                       | 17.2                             | 15.7-18.7 | 19.4                              | 16.2-22.6 | 20.8                              | 18.2-23.4 | 6.0                            | 4.00-8.00 | 2.4                | 1.5-3.3 | 00                        |
| CoP13436GC          | 01                       | 17.4                             | 15.0-19.8 | 19.2                              | 16.4-22.0 | 20.6                              | 18.2-23.0 | 5.0                            | 3.00-7.00 | 2.4                | 1.7-3.1 | 00                        |
| Co356GC             | 01                       | 16.8                             | 14.8-18.8 | 19.0                              | 17.2-20.8 | 20.3                              | 19.0-21.6 | 7.0                            | 5.00-9.00 | 2.3                | 1.6-3.0 | 00                        |
| CoPb09181GC         | 05                       | 18.0                             | 16.6-19.4 | 20.1                              | 17.0-23.2 | 20.8                              | 19.2-22.4 | 6.0                            | 3.00-9.00 | 2.0                | 1.3-2.7 | 01                        |
| BO91GC              | 06                       | 17.4                             | 15.0-19.8 | 19.2                              | 16.4-22.0 | 20.6                              | 18.2-23.0 | 5.0                            | 3.00-7.00 | 2.4                | 1.7-3.1 | 02                        |
| CoS8436PC           | 01                       | 17.4                             | 15.0-19.8 | 19.2                              | 16.4-22.0 | 20.6                              | 18.2-23.0 | 5.0                            | 3.00-7.00 | 2.4                | 1.7-3.1 | 00                        |
| CoP06436GC          | 27                       | 17.5                             | 15.2-19.8 | 18.8                              | 15.4-22.2 | 20.4                              | 18.4-22.4 | 5.0                            | 3.00-7.00 | 2.3                | 1.4-3.2 | 03                        |
| CoJ88PC             | 07                       | 17.6                             | 15.6-19.6 | 19.2                              | 16.8-21.6 | 20.8                              | 18.8-22.8 | 5.0                            | 4.00-6.00 | 2.1                | 1.6-2.6 | 01                        |
| Co1148GC            | 15                       | 17.2                             | 15.7-18.7 | 19.4                              | 16.2-22.6 | 20.8                              | 18.2-23.4 | 6.0                            | 4.00-8.00 | 2.4                | 1.5-3.3 | 01                        |

|             |         |      |           |      |           |      |           |     |           |     |         |           |
|-------------|---------|------|-----------|------|-----------|------|-----------|-----|-----------|-----|---------|-----------|
| CoP12436GC  | 04      | 16.8 | 14.6-19.0 | 18.8 | 16.6-21.0 | 20.2 | 17.8-22.6 | 7.0 | 5.00-9.00 | 2.2 | 1.5-2.9 | 00        |
| BO137GC     | 04      | 16.8 | 14.8-18.8 | 19.0 | 17.2-20.8 | 20.3 | 19.0-21.6 | 7.0 | 5.00-9.00 | 2.3 | 1.6-3.0 | 00        |
| CoP03181GC  | 04      | 18.0 | 16.6-19.4 | 20.1 | 17.0-23.2 | 20.8 | 19.2-22.4 | 6.0 | 3.00-9.00 | 2.0 | 1.3-2.7 | 01        |
| BO155GC     | 10      | 16.5 | 14.6-18.4 | 17.8 | 15.6-20.0 | 20.6 | 18.6-22.6 | 5.0 | 4.00-6.00 | 2.4 | 1.5-3.3 | 04        |
| BO130GC     | 08      | 16.8 | 15.4-18.2 | 17.6 | 15.0-20.2 | 20.2 | 18.2-22.2 | 6.0 | 3.00-9.00 | 2.2 | 1.5-2.9 | 00        |
| CoH12GC     | 05      | 17.5 | 15.2-19.8 | 18.8 | 15.4-22.2 | 20.4 | 18.4-22.4 | 5.0 | 3.00-7.00 | 2.3 | 1.4-3.2 | 00        |
| BO99GC      | 04      | 17.6 | 15.6-19.6 | 19.2 | 16.8-21.6 | 20.8 | 18.8-22.8 | 5.0 | 4.00-6.00 | 2.1 | 1.6-2.6 | 00        |
| CoLk8102GC  | 06      | 17.2 | 15.7-18.7 | 19.4 | 16.2-22.6 | 20.8 | 18.2-23.4 | 6.0 | 4.00-8.00 | 2.4 | 1.5-3.3 | 01        |
| CoPb10181GC | 02      | 16.8 | 14.6-19.0 | 18.8 | 16.6-21.0 | 20.2 | 17.8-22.6 | 7.0 | 5.00-9.00 | 2.2 | 1.5-2.9 | 00        |
| BO146GC     | 02      | 17.4 | 15.0-19.8 | 19.2 | 16.4-22.0 | 20.6 | 18.2-23.0 | 5.0 | 3.00-7.00 | 2.4 | 1.7-3.1 | 00        |
| Co7201 GC   | 01      | 18.2 | 16.6-19.4 | 20.1 | 17.0-23.2 | 20.8 | 19.2-22.4 | 6.0 | 3.00-9.00 | 2.0 | 1.3-2.7 | 00        |
| 467         | Total = |      |           |      |           |      |           |     |           |     |         | <b>92</b> |

### Performance of crosses in second clonal trial

| Cross combination        | No. of clones planted | No. of clones with > 20% sucrose at 240 days | No. of clones with > 22% sucrose at 300 days | No. of clones with > 22% sucrose at 360 days | No. of clones with > 70NMC /20' row | No. of clones with > 2.5 cm cane thickness | No. of red rot resistant clones | Superiority of the cross (Sucrose /NMC/ cane dia / Red rot resistance) | No. of clones selected |
|--------------------------|-----------------------|--|--|--|-------------------------------------|--|---------------------------------|--|------------------------|
| 1.BO91XCo88025           | 07                    | 06   | 06   | 05   | 05                                  | 05   | 05                              | 05   | 05                     |
| 2.BO155XCo0233           | 09                    | 04   | 05   | 03   | 02                                  | 04   | 02                              | 02   | 02                     |
| 3.BO92XCo775             | 02                    | 02   | 01   | 01   | 01                                  | 01   | 01                              | 01   | 01                     |
| 4. BO91xCo89003          | 01                    | 01   | 01   | 01   | 00                                  | 00   | 00                              | 00   | 00                     |
| 5.CoP8371XBO137          | 01                    | 01   | 01   | 01   | 00                                  | 00   | 00                              | 00   | 00                     |
| 6. CoPant884212XCo775    | 03                    | 03   | 02   | 01   | 02                                  | 01   | 02                              | 02   | 02                     |
| 7.BO147X Co775           | 06                    | 05   | 04   | 04   | 04                                  | 04   | 04                              | 04   | 04                     |
| 8.Co89003XBO137          | 01                    | 01   | 01   | 01   | 01                                  | 01   | 01                              | 01   | 01                     |
| 9.Co0233xCoSe92423       | 08                    | 04   | 05   | 04   | 06                                  | 04   | 04                              | 04   | 02                     |
| 10.CoP06436XCo89003      | 02                    | 02   | 02   | 02   | 02                                  | 02   | 02                              | 02   | 02                     |
| 11.CoP03181XCoPant 97222 | 01                    | 02   | 02   | 02   | 02                                  | 02   | 02                              | 02   | 00                     |
| 12.Co62198 GC            | 01                    | 01   | 01   | 01   | 01                                  | 01   | 01                              | 01   | 01                     |
| 13.CoJn80141GC           | 06                    | 06   | 05   | 06   | 06                                  | 05   | 05                              | 05   | 05                     |
| 14.C 79218GC             | 03                    | 01   | 01   | 01   | 00                                  | 00   | 00                              | 00   | 00                     |
| 15.CoJ88GC               | 06                    | 04   | 03   | 02   | 01                                  | 01   | 02                              | 02   | 02                     |
| 16.BO153GC               | 37                    | 26   | 20   | 22   | 24                                  | 22   | 21                              | 20   | 20                     |
| 17.CoH70GC               | 02                    | 02   | 01   | 01   | 00                                  | 00   | 00                              | 00   | 00                     |
| 18.Co98006GC             | 01                    | 01   | 01   | 01   | 00                                  | 00   | 00                              | 00   | 00                     |
| 19.BO130GC               | 02                    | 02   | 02   | 02   | 02                                  | 02   | 02                              | 02   | 02                     |
| 20.Co8353GC              | 04                    | 02   | 01   | 01   | 01                                  | 01   | 01                              | 01   | 01                     |
| 21.CoS88216GC            | 02                    | 01   | 01   | 01   | 02                                  | 01   | 01                              | 01   | 01                     |
| 22.BO154GC               | 02                    | 02   | 01   | 01   | 01                                  | 02   | 01                              | 01   | 01                     |
| Others                   | 04                    | 04   | 04   | 04   | 04                                  | 04   | 04                              | 04   | 04                     |
| <b>Total</b>             | <b>111</b>            |  |  |  |                                     |  |                                 |  | <b>55</b>              |

### 6.3. Achievement of the fluff receiving centers during the last five years

#### Bathuadahari

| Year    | No. of seedlings evaluated in ground nursery | No. of clones planted in first clonal trial | No. of clones in second clonal trials | No of clones evaluated in station trial | No. of clones selected for Zonal varietal trails | Name (s) of the clone(s) released by SVRC / CVRC |
|---------|--|---|---------------------------------------|---|--|--|
| 2020-21 | 0(*)   |   |                                       |   |  |  |
| 2019-20 | 3321   | 1747  | 205                                   |   |  |  |
| 2018-19 | 640  | 619   | 48                                    | 18                                      |  |  |
| 2017-18 | 828  | 821   | 88                                    | 22                                      | 9  |  |
| 2016-17 | 0(#)   |   |                                       |   |  |  |

#### Cuddalore

| Year    | No. of seedlings evaluated in ground nursery | No. of clones planted in first clonal trial | No. of clones in second clonal trials | No of clones evaluated in station trial | No. of clones selected for Zonal varietal trials | Name (s) of the clone(s) released by SVRC / CVRC |
|---------|--|---|---------------------------------------|---|--|--|
| 2020-21 | 6081   | 85  | 40                                    | 17                                      | Early clones -2<br>Midlate clones -2             | -  |
| 2019-20 | 2949   | 258   | 55                                    | 16                                      | Early clones -2<br>Midlate clones -2             | CoC 13339 by CVRC and SVRC                       |
| 2018-19 | 3235   | 342   | 66                                    | 56                                      | -  | -  |
| 2017-18 | 4335   | 332   | 136                                   | 31                                      | Early clones -3<br>Midlate clones -2             | -  |
| 2016-17 | 4732   | 332   | 108                                   | 42                                      | Early clones -1<br>Midlate clones -1             | CoC 11336 as CoC 25 by SVRC                      |

#### Faridkot

| Year    | No. of seedlings evaluated in ground nursery | No. of clones planted in first clonal trial | No. of clones planted in second clonal trial | No. of clones evaluated in station trials (PYT+AYT) | No. of clones selected for zonal varietal trials | Name of the clone(s) released by SVRC/ CVRC |
|---------|--|---|--|---|--|---|
| 2021-22 | Fluffs stored and sown                       | 540   | 41+4   | 17+6  | -  | -   |
| 2020-21 | 2760*  | 376 (219+157)                               | 66   | 19+8  | 1  | CoPb 96 (CoPb 14181), CoPb 14185 (CoPb 98)  |
| 2019-20 | 2508   | 138   | <b>28</b>                                    | <b>15+7</b>   | 2  | -   |
| 2018-19 | 328  | 132   | 48   | 14+9  | 2  | -   |
| 2017-18 | 612  | 355   | 37   | 17+8  | -  | -   |
| 2016-17 | 667  | 501   | 50   | 19+16   | 1  | CoPb 10181                                  |

\*Fluff also sown in ground nursery 2021-22.

#### Lucknow

| Year | No. of seedlings evaluated in | No. of clones planted in first clonal trial | No of clones in second | No. of clones evaluated in | No. of clones selected for zonal varietal | Name(s) of the clone(s) released by CVRC / SVRC |
|------|-------------------------------|---|------------------------|----------------------------|---|---|
|------|-------------------------------|---|------------------------|----------------------------|---|---|

|         | the ground nursery |     | clonal trial | station trial | trial |                           |
|---------|--------------------|-----|--------------|---------------|-------|---------------------------|
| 2016-17 | 13213              | 222 | 57           | 12            | 4     | CoLk 09204                |
| 2017-18 | 24429              | 225 | 26           | 11            | 5     | CoLk 11206 and CoLk 11203 |
| 2018-19 | 10676              | 998 | 53           | 9             | 4     | CoLk 12207 and CoLk 12209 |
| 2019-20 | 30010              | 174 | 182          | 10            | 4     | -                         |
| 2020-21 | 17146              | 665 | 58           | 10            | 5     | CoLk 14204 and CoLk 14201 |

### Pusa

| Year    | No. of seedlings evaluated in ground nursery | No. of clones planted in first clonal trial | No. of clones in second clonal trials | No of clones evaluated in station trial | No. of clones selected for Zonal varietal trails | Name (s) of the clone(s) released by SVRC / CVRC |
|---------|--|---|---------------------------------------|---|--|--|
| 2021-22 | 5132   | 707   | 92 (+2)=94                            | 55                                      | 04   |  |
| 2020-21 | 7587   | 467   | 112                                   | 43                                      | 05   | -  |
| 2019-20 | 40794  | 559   | 111                                   | 82                                      | 06   | 01   |
| 2018-19 | 23812  | 448   | 161                                   | 59                                      | 03   | -  |
| 2017-18 | 40427  | 342   | 94                                    | 64                                      | 11   | -  |
| 2016-17 | 26824  | 231   | 173                                   | 49                                      | 06   | -  |

### Thiruvalla

| Year    | No. of seedlings evaluated in ground nursery  | No. of clones planted in first clonal trial | No. of clones in second clonal trials | No of clones evaluated in station trial | No. of clones selected for Zonal varietal trails | Name (s) of the clone(s) released by SVRC / CVRC |
|---------|---|---|---------------------------------------|---|--|--|
| 2016-17 | 232   | 27  | Nil                                   |   |  |  |
| 2017-18 | All the seedlings in the nursery have been lost completely due to heavy flood occurred during 15 <sup>th</sup> to 20 <sup>th</sup> of July 2018 |   |                                       |   |  |  |
| 2018-19 | All the seedlings in the nursery have been lost completely due to flood occurred during 8 <sup>th</sup> to 11 <sup>th</sup> of August 2020      |   |                                       |   |  |  |
| 2019-20 | 1154*   | 119   |                                       |   |  |  |
| 2020-21 | 3416  |   |                                       |   |  |  |

### Uchani

| Year | No. of seedlings evaluated in ground nursery | No. of clones planted in first clonal | No. of clones in second clonal trials | No of clones evaluated in station | No. of clones selected for Zonal varietal trails | Name (s) of the clone(s) released by SVRC / CVRC |
|------|--|---------------------------------------|---------------------------------------|-----------------------------------|--|--|
|------|--|---------------------------------------|---------------------------------------|-----------------------------------|--|--|



|         |       |       |                               |       |                             |   |
|---------|-------|-------|-------------------------------|-------|-----------------------------|---|
|         |       | trial |                               | trial |                             |   |
| 2015-16 | 33947 | 368   | 202                           | 24    | -                           | -   |
| 2016-17 | 9708  | 373   | 114                           | 15    | -                           | -   |
| 2017-18 | *-    | 3212  | 107                           | 25    | 2 (Midlate)                 | -   |
| 2018-19 | 1240  | 503   | 285                           | 15    | -                           | SVRC: CoH<br>160                                |
| 2019-20 | 7819  | * -   | 226<br>(130+Repeat<br>clones) | 45    | 2 ( 1 Early &<br>1 Midlate) | -   |
| 2020-21 | 743   | 172   | 41 (Repeat<br>Clones)         | 30    | 1 (Early)                   | CVRC: CoH<br>160<br>(For Haryana<br>State only) |