# ANNUAL REPORT (2013-14) ALL INDIA COORDINATED RESEARCH PROJECT ON SUGARCANE SHAHJAHANPUR (NWZ)

## **Zonal Varietal Trials**

## 1- Initial Varietal Trial (Early)

Five varieties including two standards viz.,Co 10035, CoH 10261, CoS 10231,(standards) CoJ 64 and CoPant 84211 were evaluated in R.B.D with four replications. The net plot size was 5M x 4R x 0.75M.

Varieties CoS 10231(10.20, 85.67) followed by Co 10035(9.84, 81.17) recorded significantly superior CCS t/ha and cane yield t/ha to the better standard CoJ 64 (9.25, 76.83) respectively. The highest sucrose percent in juice was exhibited by Co 10035 (16.90, 17.56) compared to the better standard CoJ 64 (16.77, 17.44) at 240 and 300 days, respectively while variety CoS 10231 (16.84) was also better in sucrose percent in juice compared to CoJ 64 (16.77) at 240 days (Table 1).

## 2- Advance Varietal Trial (Early) I Plant

Five varieties viz., CoH 09262, CoH 09263, CoLk 09202, CoPb 09181, CoS 09246 and two standards CoJ 64 and CoPant 84211 were evaluated in R.B.D with three replication . The net plot size was  $5M \times 6R \times 0.75M$ .

Varieties CoS 09246 (10.17, 87.70) followed by CoPb 09181 (9.81, 86.81) and CoLk 09202 (9.60, 88.44) gave significantly higher CCS t/ha and cane yield t/ha to the better standard CoJ 64 (8.93, 76.15) respectively. The maximum sucrose percent in juice at harvest was found in CoH 09262 (16.99) in comparison with 16.98 in CoJ 64 (Table 2).

# 3- Advance Varietal Trial (Early) II Plant

Three test entries viz., CoPb 08211, CoPb08212, CoS 08233 and two standards CoJ 64 and CoPant 84211 were evaluated in R.B.D with four replications . The net plot Size was  $5M \times 6R \times 0.75M$ .

Varieties CoPb 08212 (10.66, 86.22) and CoS 08233 (10.54, 83.67) were significantly superior for CCS t/ha and cane yield t/ha to the better standard CoJ 64 (9.50, 76.89)

respectively. The maximum sucrose percent in juice was in the variety CoS 08233 (18.24) in comparison with standard CoJ 64 (17.88) at 300 days (Table-3).

## 4-Advance Varietal Trial (Early) Ratoon

Ratooning behaviour of five varieties including two standards viz., CoPb 08211, CoPb 08212, CoS 08233,( standards) CoJ 64 and CoPant 84211 were evaluated in R.B.D with four replications. The net plot size was 5M x 6R x 0.75M.

Variety CoPb 08212 (9.11, 74.22) gave significantly higher CCS t/ha and cane yield t/ha to the better standard CoJ 64 (8.54, 69.89) respectively. The maximum sucrose percent in juice was exhibited by CoPb 08212 (17.85) in comparison with the better standard CoJ 64 (17.79) at 270 days Table (4).

# 5-Initial Varietal Trial (Mid late)

Thirteen varieties including three standards viz., Co 10036, Co 10037, Co 10039, CoH 10262, CoH 10263, CoPant 10221, CoPb 10181, CoPb 10182, CoPb 10183, CoPb 10211, (standards) CoS 767, CoS 8436 and CoPant 97222 were evaluated in R.B.D with three replications. The net plot size was 5 M x 4 R x 0.90 M.

Varieties CoH 10262 (13.26, 101.11) followed by CoPb 10181 (12.10, 93.70), CoPb 10211 (11.82, 91.67), Co 10039 (11.77, 90.56), CoPant 10221 (11.58, 90.00) recorded significantly superior CCS t/ha and cane yield t/ha to the better standard CoS 767 (10.36, 81.67) respectively. The highest sucrose percent in juice was exhibited by the varieties Co 10037 (18.85) and CoS 8436 (19.33) among standards at 360 days. (Table-5)

#### 6-Advance varietal trial (midlate) I Plant

Eight varieties including three standards viz., Co 09022, CoH 09264, CoLk 09204, CoPb 09214, CoS 09232,( standards) CoS 767, CoS 8436, CoPant 97222 were evaluated in R.B.D with three replications. The net plot size was 5M x 6R x 0.90M.

Varieties CoS 09232 (12.21, 95.31) followed by Co 09022 (12.20, 91.11), CoH 09264 (11.62, 98.15) gave significantly higher CCS t/ha than the better standard CoS 767 (10.28, 81.23) respectively. None of the varieties proved superior to the best standard CoS 8436 (17.11 at 300 days and 19.61 at 360 days) for sucrose percent in juice (Table 6)

## 7-Advance Varietal Trial (mid late) II Plant

Nine varieties including three standards viz., CoH 08262, CoH 08263, CoH 08264, CoPb 08217, CoS 08234, CoS 08235, (standards) CoS 767, CoS 8436, CoPant 97222 were tested in R.B.D with three replications. The net plot size was 5M x 6R x 0.90M.

Varieties CoH 08264 (12.39, 91.48), CoPb 08217 (12.44, 97.78), CoS 08235 (12.28, 94.57) and CoS 08234 (12.04, 89.26) recorded significantly higher CCS t/ha and cane yield t/ha to the best standard CoS 767 (10.12, 80.25), respectively. The maximum sucrose percent in juice was recorded in CoH 08264 (17.89 at 300 days and 19.44 at 360 days) and CoS 08234 (17.61 at 300 days and 19.39 at 360 days) among varieties and in standard CoS 8436 (17.48 at 300 days and 19.14 at 360 days) respectively (Table 7).

## 8-Advance Varietal Trial (Midlate) Ratoon

Ratooning behaviour of nine varieties including three standards viz., CoH 08262, CoH 08263, CoH 08264, CoPb 08217, CoS 08234, CoS 08235, (standards) CoS 767, CoS 8436, CoPant 97222 were evaluated in R.B.D with three replications. The net plot size was  $5M \times 6R \times 0.90M$ .

Variety CoPb 08217 (9.47, 80.99) and CoS 08235 (9.33, 79.01) gave significantly superior CCS t/ha and cane yield t/ha to the better standard CoS 767 (8.66, 71.60) respectively. The maximum sucrose percent in juice at harvest was found in CoS 08234 (17.61) in comparison with standard CoS 767 (17.46). (Table -8).

## Visit of monitoring team

Monitoring team visited Shahjahanpur on 18-9-2013.