

TAMIL NADU AGRICULTURAL UNIVERSITY

From
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To
The Project Coordinator
AICRP on Sugarcane
Indian Institute of Sugarcane Research (IISR)
Rae Bareli Road, Dilkusha, Post
Lucknow – 226 002.
Uttar Pradesh

No. P&H/ SRS/ CDL/ AICRP (S)/ Annual Report for 2016-17 /2017 dt. 29.05.2017

Sir,

Sub : Sugarcane Research Station, Cuddalore – AICRP on Sugarcane- Annual Report for 2016-17 – Submitted – Regarding.

Ref : i. F. NO. 17-33/ PCS/ 2017 – Dt. 15.05.2017 of the Project Coordinator, AICRP (S), IISR, Lucknow.

ii. D.O No; 1-11/2017 – CI (Br.)/ dt. 10.04.2017 and 04.05.2017 of the Principal Investigator, AICRP (S) – Crop Improvement, SBI, Coimbatore – 641 007.

As per the references cited above, I submit to enclose herewith the Annual Report of AICRP (S) pertaining to Crop Improvement under East Coast Zone of AICRP on Sugarcane of this centre for kind perusal.

**-Sd/--
Professor and Head**

Copy submitted to the Principal Investigator (CI), AICRP (S), SBI, Coimbatore – 641 007.
Copy submitted to the Director of Research, TNAU, Coimbatore - 641 003.
Copy submitted to the Director, Tamil Nadu Rice Research Institute, Aduthurai – 612 001.

AICRP (S) – EAST COAST ZONE
SUGARCANE RESEARCH STATION (TNAU)

Crop Improvement

Trials conducted as per Technical programme 2016-17.

S. No.	Trial	Entries	Plot size	Date of Planting
1.	IVT (Early)	7+2	6.0 m x 8R x 0.9m	19.02.2016
2.	AVT (Early) – I Plant	5+2	6.0m x 8R x 0.9m	19.02.2016
3.	AVT (Early) II plant	5+3	6.0m x 8R x 0.9m	23.02.2016
4.	AVT (Early) - Ratoon	5+3	6.0m x 8R x 0.9m	13.04.2016
5.	IVT (mid-late)	12+2	6.0m x 8R x 0.9m	01.03. 2016
6.	AVT (mid-late) – I plant	4+2	6.0m x 8Rx 0.9m	01.03. 2016

1. Initial Varietal Trial (Early) – Cuddalore Centre

Entries (7)	:	Co 07 013, Co 13 023, Co 13 024, CoA 14 321, CoA 14 322, CoC 14 336 CoV 14 356
Standards (2)	:	CoC 01061 and CoA 92081
Design	:	RBD
Replications	:	Three
Plot size	:	Gross: 6.0 m x 6 r x 0.9 m Net : 5.0 m x 4 r x 0.9 m
Seed rate	:	12 buds/m
Date of Planting	:	19.02.2016
Crop duration	:	10 months

1. Initial Varietal Trial (Early) – I Plant (7+2)

A total of seven clones and two standards were evaluated in Randomized Block Design with three replications as per the technical program 2016-17. The clone Co 07 013 recorded higher cane yield (137.75 t/ha) followed by the clone CoC 14 336 (137.66 t/ha) and CoA 14 321 (132.20 t/ha). The CCS yield was maximum in the clone CoC 14336 (18.03 t/ha) followed by the clone Co 07 013 (17.29 t/ha) and Co 13 023 (16.96 t/ha). (Table 1.1 to 1.20).

1. Initial Varietal Trial (Early) – ECZ – Cuddalore

S. No.	Clone	CCS (t/ha)	Cane yield (t/ha)	Sucrose (%) (10 m)	Brix (%) (10 m)	Purity (%) (10 m)	CCS (%) (10 m)	Pol. (%) cane (10 m)	Extraction (%) (10 m)	Fibre (%) (10 m)	NMC ('000/ha) (10 m)
1	Co 07 013	17.29	137.75	17.61	20.20	88.17	12.55	13.35	49.25	13.56	119.40
2	Co 13 023	16.96	130.07	18.02	20.83	90.12	13.04	13.90	50.18	13.31	115.47
3	Co 13 024	15.94	128.15	16.98	19.90	87.73	12.44	13.57	49.05	13.64	110.72
4	CoA 14 321	16.86	132.20	17.65	20.55	90.04	12.75	13.93	50.67	13.37	118.65
5	CoA 14 322	15.13	121.34	17.50	20.78	89.38	12.47	13.60	49.72	13.55	106.87
6	CoC 14 336	18.03	137.66	18.15	21.10	90.40	13.10	14.01	50.84	13.27	119.31
7	CoV 14 356	15.56	121.85	17.83	20.63	88.75	12.77	13.32	49.88	13.54	105.01
Standard											
1.	CoC 01061	14.70	115.76	17.73	20.70	89.78	12.70	13.84	50.41	13.33	116.77
2.	CoA 92081	14.98	118.65	17.42	20.25	88.26	12.63	13.51	50.11	13.06	98.90
	S.Ed.	0.39	3.02	0.10	0.09	0.22	0.05	0.04	0.20	0.07	3.58
	CD (0.05%)	1.17	9.05	0.29	0.27	0.64	0.15	0.13	0.61	0.21	10.72
	CV (%)	4.19	4.12	0.95	0.76	0.42	0.67	0.53	0.70	0.91	5.51

S. No.	Clone	Stalk length (cm)	Stalk Diameter (cm)	Single Cane Wt. (kg)	Brix (%) (8 m)	Sucrose (%) (8 m)	Purity (%) (8 m)	CCS (%) (8 m)	No. of shoots ('000/ha)	No. of tillers ('000/ha)	Germination (%)
1	Co 07 013	276.45	2.81	1.13	18.64	14.97	85.38	10.51	124.13	130.51	69.93
2	Co 13 023	271.50	2.85	1.27	19.75	15.58	86.18	10.97	119.24	126.93	58.47
3	Co 13 024	270.84	2.72	1.14	19.40	15.12	84.70	10.33	118.14	122.40	58.28
4	CoA 14321	275.00	2.83	1.30	19.72	15.67	86.42	10.67	123.28	129.92	52.36
5	CoA 14322	276.11	2.77	1.09	19.45	15.74	84.48	10.43	118.23	122.10	55.86
6	CoC 14336	275.83	2.95	1.35	19.47	16.10	85.51	11.01	125.03	130.21	74.32
7	CoV 14356	258.22	2.60	1.13	18.94	15.87	84.17	10.71	110.65	115.14	60.64
Standard											
1	CoC 01061	272.33	2.55	1.03	19.00	15.74	85.42	10.61	122.04	128.90	73.93
2	CoA 92081	253.33	2.75	1.24	18.62	15.44	84.29	10.53	109.37	115.33	52.46
	S.Ed.	4.35	0.07	0.04	0.36	0.13	0.18	0.04	3.28	3.42	3.05
	CD (0.05%)	13.04	0.20	0.12	1.08	0.40	0.53	0.11	9.84	10.25	9.15
	CV (%)	2.79	4.19	6.03	3.24	1.48	0.36	0.62	4.78	4.75	8.56

1. IVT (Early) – (Centre – Cuddalore)

Table 1. 1. CCS Yield (t/ha) at harvest

Clone	R I	R II	R III	Mean
Co 07 013	17.40	16.63	17.86	17.29
Co 13 023	17.02	17.47	16.40	16.96
Co 13 024	16.78	15.29	15.75	15.94
CoA 14 321	17.14	16.23	17.21	16.86
CoA 14 322	15.14	15.64	14.62	15.13
CoC 14 336	18.31	17.98	17.81	18.03
CoV 13 356	15.57	14.76	16.35	15.56
Standard				
CoC 01061	13.59	14.82	15.69	14.70
CoA 92081	14.55	15.44	14.96	14.98
S.Ed.				0.39
CD (0.05)				1.17
CV (%)				4.19

Table 1. 2. CCS Yield (t/ha) at harvest

Clone	R I	R II	R III	Mean
Co 07013	138.65	133.34	141.26	137.75
Co 13 023	129.72	133.86	126.64	130.07
Co 13 024	135.25	121.65	127.55	128.15
CoA 14 321	133.41	127.37	135.82	132.20
CoA 14 322	120.55	126.12	117.36	121.34
CoC 14 336	140.32	137.24	135.43	137.66
CoV 14 356	121.16	115.75	128.64	121.85
Standard				
CoC 01061	107.65	116.25	123.37	115.76
CoA 92081	115.84	121.35	118.76	118.65
S.Ed.				3.02
CD (0.05)				9.05
CV (%)				4.12

Table 1. 3. Sucrose per cent at harvest

Clone	R I	R II	R III	Mean
Co 07 013	17.47	17.62	17.75	17.61
Co 13 023	18.12	17.95	18.00	18.02
Co 13 024	17.35	16.84	16.75	16.98
CoA 14 321	17.75	17.57	17.62	17.65
CoA 14 322	17.35	17.42	17.74	17.50
CoC 14 336	18.21	18.10	18.15	18.15
CoV 14 356	17.95	17.75	17.80	17.83
Standard				
CoC 01061	17.85	17.72	17.63	17.73
CoA 92081	17.75	17.15	17.35	17.42
S.Ed.				0.10
CD (0.05)				0.29
CV (%)				0.95

Table 1. 4. CCS per cent at harvest

Clone	R I	R II	R III	Mean
Co 07 013	12.55	12.47	12.64	12.55
Co 13 023	13.12	13.05	12.95	13.04
Co 13 024	12.41	12.57	12.35	12.44
CoA 14 321	12.85	12.74	12.67	12.75
CoA 14 322	12.56	12.4	12.46	12.47
CoC 14 336	13.05	13.10	13.15	13.10
CoV 13 356	12.85	12.75	12.71	12.77
Standard				
CoC 01061	12.62	12.75	12.72	12.70
CoA 92081	12.56	12.72	12.6	12.63
S.Ed.				0.05
CD (0.05)				0.15
CV (%)				0.67

Table 1. 5. Brix per cent at harvest

Clone	R I	R II	R III	Mean
Co 07 013	20.25	19.82	20.54	20.20
Co 13 023	20.90	20.75	20.85	20.83
Co 13 024	20.15	19.80	19.75	19.90
CoA 14 321	20.65	20.45	20.55	20.55
CoA 14 322	20.72	20.85	20.76	20.78
CoC 14 336	21.25	21.10	20.95	21.10
CoV 14 356	20.62	20.72	20.55	20.63
Standard				
CoC 01061	20.75	20.65	20.70	20.70
CoA 92081	20.35	20.15	20.25	20.25
S.Ed.				0.09
CD (0.05)				0.27
CV (%)				0.76

Table 1. 6. Purity per cent at harvest

Clone	R I	R II	R III	Mean
Co 07013	87.90	88.50	88.10	88.17
Co 13 023	90.15	90.45	89.75	90.12
Co 13 024	87.45	88.25	87.50	87.73
CoA 14 321	90.15	89.85	90.12	90.04
CoA 14 322	89.45	90.15	88.55	89.38
CoC 14 336	90.85	90.20	90.15	90.40
CoV 14 356	88.65	89.25	88.35	88.75
Standard				
CoC 01061	90.15	89.45	89.75	89.78
CoA 92081	88.22	88.45	88.10	88.26
S.Ed.				0.22
CD (0.05)				0.64
CV (%)				0.42

Table 1. 7. Pol. Per cent (cane) at harvest

Clone	R I	R II	R III	Mean
Co 07013	13.25	13.35	13.45	13.35
Co 13 023	13.90	13.95	13.86	13.90
Co 13 024	13.65	13.55	13.51	13.57
CoA 14 321	13.90	13.93	13.95	13.93
CoA 14 322	13.62	13.55	13.64	13.60
CoC 14 336	13.97	13.95	14.12	14.01
CoV 14 356	13.35	13.16	13.44	13.32
Standard				
CoC 01061	13.8	13.77	13.94	13.84
CoA 92081	13.52	13.45	13.55	13.51
S.Ed.				0.04
CD (0.05)				0.13
CV (%)				0.53

Table 1. 8. Extraction per cent at harvest

Clone	R I	R II	R III	Mean
Co 07013	49.15	49.84	48.75	49.25
Co 13 023	50.26	50.12	50.15	50.18
Co 13 024	49.15	48.65	49.35	49.05
CoA 14 321	50.42	50.33	51.25	50.67
CoA 14 322	49.5	49.75	49.92	49.72
CoC 14 336	51.15	50.65	50.72	50.84
CoV 14 356	50.12	49.72	49.81	49.88
Standard				
CoC 01061	50.26	50.61	50.35	50.41
CoA 92081	49.75	50.12	50.45	50.11
S.Ed.				0.20
CD (0.05)				0.61
CV (%)				0.70

Table 1. 9. Fibre per cent at harvest

Clone	R I	R II	R III	mean
Co 07013	13.52	13.65	13.52	13.56
Co 13 023	13.25	13.42	13.27	13.31
Co 13 024	13.54	13.65	13.72	13.64
CoA 14 321	13.52	13.25	13.35	13.37
CoA 14 322	13.42	13.65	13.57	13.55
CoC 14 336	13.22	13.24	13.35	13.27
CoV 14 356	13.62	13.55	13.45	13.54
Standard				
CoC 01061	13.32	13.45	13.22	13.33
CoA 92081	13.12	13.27	12.78	13.06
S.Ed.				0.07
CD (0.05)				0.21
CV (%)				0.91

Table 1. 10. NMC ('000/ha) at harvest

Clone	R I	R II	R III	Mean
Co 07013	119.23	112.45	126.52	119.40
Co 13 023	107.64	118.61	120.15	115.47
Co 13 024	110.25	105.34	116.58	110.72
CoA 14 321	112.36	117.85	125.74	118.65
CoA 14 322	108.38	112.47	99.76	106.87
CoC 14 336	118.65	125.95	113.32	119.31
CoV 14 356	100.54	106.35	108.15	105.01
Standard				
CoC 01061	115.95	124.22	110.14	116.77
CoA 92081	92.51	98.95	105.25	98.90
SEd				3.58
CD (0.05)				10.72
CV (%)				5.51

Table 1. 11. Stalk length (cm) at harvest

Clone	R I	R II	R III	Mean
Co 07013	270.52	276.33	282.50	276.45
Co 13 023	271.65	275.00	267.85	271.50
Co 13 024	265.85	276.33	270.35	270.84
CoA 14 321	267.00	276.00	282.00	275.00
CoA 14 322	285.33	276.00	267.00	276.11
CoC 14 336	277.00	285.00	265.50	275.83
CoV 14 356	252.35	265.45	256.85	258.22
Standard				
CoC 01061	271.00	265.00	281.00	272.33
CoA 92081	245.00	252.00	263.00	253.33
S.Ed.				4.35
CD (0.05)				13.04
CV (%)				2.79

Table 1. 12. Stalk diameter (cm) at harvest

Clone	R I	R II	R III	Mean
Co 07013	2.75	2.95	2.72	2.81
Co 13 023	2.95	2.85	2.74	2.85
Co 13 024	2.72	2.81	2.64	2.72
CoA 14 321	2.85	2.92	2.72	2.83
CoA 14 322	2.82	2.65	2.85	2.77
CoC 14 336	2.85	2.95	3.05	2.95
CoV 14 356	2.65	2.54	2.61	2.60
Standard				
CoC 01061	2.45	2.54	2.66	2.55
CoA 92081	2.65	2.85	2.74	2.75
S.Ed.				0.07
CD (0.05%)				0.20
CV (%)				4.19

Table 1. 13. Single cane weight (kg) at harvest

Clone	R I	R II	R III	Mean
Co 07 013	1.22	1.12	1.05	1.13
Co 13 023	1.26	1.33	1.22	1.27
Co 13 024	1.21	1.15	1.05	1.14
CoA 14 321	1.31	1.35	1.25	1.30
CoA 14 322	1.17	1.04	1.05	1.09
CoC 14 336	1.41	1.30	1.35	1.35
CoV 14 356	1.24	1.04	1.12	1.13
Standard				
CoC 01061	0.95	1.04	1.10	1.03
CoA 92081	1.17	1.31	1.23	1.24
S.Ed				0.04
CD (0.05%)				0.12
CV (%)				6.03

Table 1. 14. Brix % at 8th month

Clone	R I	R II	R III	Mean
Co 07013	18.95	18.32	18.65	18.64
Co 13 023	19.15	19.25	20.85	19.75
Co 13 024	20.15	18.30	19.75	19.40
CoA 14 321	19.65	18.95	20.55	19.72
CoA 14 322	20.15	19.35	18.85	19.45
CoC 14 336	19.95	19.60	18.85	19.47
CoV 14 356	18.95	19.22	18.65	18.94
Standard				
CoC 01061	18.75	19.15	19.10	19.00
CoA 92081	18.45	18.65	18.75	18.62
S.Ed.				0.36
CD (0.05%)				1.08
CV (%)				3.24

Table 1. 15. Sucrose % at 8th month

Clone	R I	R II	R III	Mean
Co 07013	15.12	14.95	14.85	14.97
Co 13 023	15.15	15.95	15.65	15.58
Co 13 024	15.65	14.95	14.75	15.12
CoA 14 321	15.75	15.62	15.65	15.67
CoA 14 322	15.65	15.82	15.75	15.74
CoC 14 336	16.1	16.15	16.05	16.10
CoV 14 356	15.95	15.85	15.82	15.87
Standard				
CoC 01061	15.85	15.72	15.64	15.74
CoA 92081	15.65	15.26	15.42	15.44
S.Ed.				0.13
CD (0.05%)				0.40
CV (%)				1.48

Table 1. 16. Purity per cent at 8th month

Clone	R I	R II	R III	Mean
Co 07013	85.85	84.65	85.65	85.38
Co 13 023	86.15	85.95	86.45	86.18
Co 13 024	84.75	84.65	84.71	84.70
CoA 14 321	86.15	86.75	86.35	86.42
CoA 14 322	84.65	84.45	84.35	84.48
CoC 14 336	85.65	85.35	85.52	85.51
CoV 14 356	84.42	83.65	84.45	84.17
Standard				
CoC 01061	85.25	85.35	85.65	85.42
CoA 92081	84.25	84.45	84.17	84.29
S.Ed.				0.18
CD (0.05%)				0.53
CV (%)				0.36

Table 1. 17. CCS per cent at 8th month

Clone	R I	R II	R III	Mean
Co 07013	10.49	10.43	10.62	10.51
Co 13 023	11.06	10.92	10.93	10.97
Co 13 024	10.35	10.32	10.33	10.33
CoA 14 321	10.75	10.61	10.65	10.67
CoA 14 322	10.50	10.35	10.44	10.43
CoC 14 336	10.92	10.98	11.13	11.01
CoV 14 356	10.79	10.65	10.69	10.71
Standard				
CoC 01061	10.56	10.58	10.70	10.61
CoA 92081	10.50	10.51	10.58	10.53
S.Ed.				0.04
CD (0.05)				0.11
CV (%)				0.62

Table 1. 18. Number of shoots ('000/ha) – 180 days

Clone	R I	R II	R III	Mean
Co 07013	126.73	115.52	130.13	124.13
Co 13 023	119.82	115.35	122.54	119.24
Co 13 024	117.43	113.86	123.13	118.14
CoA 14 321	118.15	123.72	127.96	123.28
CoA 14 322	117.75	125.28	111.65	118.23
CoC 14 336	125.35	128.48	121.27	125.03
CoV 13 356	105.87	110.86	115.23	110.65
Standard				
CoC 01061	122.25	127.65	116.22	122.04
CoA 92081	104.32	116.42	107.37	109.37
SEd				3.28
CD (0.05%)				9.84
CV (%)				4.78

Table 1. 19. Number of tillers ('000/ha) – 120 days

Clone	R I	R II	R III	Mean
Co 07013	134.25	121.55	135.72	130.51
Co 13 023	126.15	122.36	132.28	126.93
Co 13 024	121.62	118.75	126.84	122.40
CoA 14 321	123.54	128.67	137.56	129.92
CoA 14 322	122.62	127.45	116.23	122.10
CoC 14 336	130.26	134.83	125.54	130.21
CoV 13 356	110.25	115.76	119.41	115.14
Standard				
CoC 01061	128.68	135.87	122.14	128.90
CoA 92081	110.41	119.95	115.62	115.33
SEd				3.42
CD (0.05%)				10.25
CV (%)				4.75

Table 1. 20. Germination per cent – 30 days

Clone	R I	R II	R III	Mean
Co 07013	64.96	74.3	70.53	69.93
Co 13 023	57.31	57.7	60.41	58.47
Co 13 024	60.64	54.71	59.49	58.28
CoA 14 321	45.28	57.63	54.16	52.36
CoA 14 322	47.22	56.01	64.35	55.86
CoC 14 336	77.86	75.00	70.09	74.32
CoV 13 356	51.85	66.2	63.88	60.64
Standard				
CoC 01061	75.16	65.87	80.75	73.93
CoA 92081	48.99	51.15	57.25	52.46
S.Ed.				3.05
CD (0.05%)				9.15
CV (%)				8.56

2. Advanced Varietal Trial (Early) - I Plant

Entries (5)	:	CoA 13 322, CoA 13 323, CoC 13 336, CoC 13 337 and CoV 13 356
Standards (2)	:	CoC 01061 and CoA 92081
Design	:	RBD
Replications	:	Three
Plot size	:	Gross: 6.0 m x 8 r x 0.90 m Net : 5.0 m x 6 r x 0.9 0m
Seed rate	:	12 buds /m
Date of Planting	:	19.02.2016
Crop duration	:	10 months

2. Advanced Varietal Trial (Early) - I Plant

A total of five clones and two standards were evaluated in RBD with three replications. The clone CoC 13336 recorded higher cane yield (140.71 t/ha) followed by CoC 13337 (139.92 t/ha) and CoA 13 322 (127.15 t/ha). The CCS yield was maximum in the CoC 13336 (18.23 t/ha) followed by the clone CoC 13337 (17.93 t/ha) and CoA 13322 (16.06 t/ha). The sucrose per cent was maximum in CoC 13336 (17.97 %) followed by the clone CoC 13337 (17.75 %) and clone CoV 13 356 (17.72 %). (Table 2.1 to 2.20).

2. Advanced Varietal Trial (Early) – I Plant

S. No.	Clone	CCS (t/ha)	Cane yield (t/ha)	Sucrose (%) (10 m)	Brix (%) (10 m)	CCS (%) (10 m)	Purity (%) (10 m)	Pol. (%) cane (10 m)	Extraction (%) (10 m)	Fibre (%) (10 m)	NMC ('000/ha) (10 m)
1	CoA 13 322	16.06	127.15	17.60	12.63	20.27	88.88	13.63	52.25	13.08	110.87
2	CoA 13 323	15.66	122.63	17.66	12.77	20.52	89.91	13.86	53.14	12.80	99.61
3	CoC 13 336	18.23	140.71	17.97	12.96	20.92	90.17	13.95	53.91	12.70	117.22
4	CoC 13 337	17.93	139.92	17.75	12.82	20.75	90.07	13.91	52.68	12.91	116.94
5	CoV 13 356	15.66	122.83	17.72	12.75	20.74	90.16	13.74	52.37	12.95	99.75
	Standard										
1	CoC 01061	14.49	113.22	17.71	12.80	20.77	89.95	13.82	52.64	12.75	111.29
2	CoA 92081	14.56	116.78	17.35	12.47	20.31	88.14	13.51	51.78	12.97	100.70
	S.Ed.	0.59	4.74	0.08	0.07	0.11	0.62	0.12	0.35	0.12	4.70
	CD (0.05)	1.29	10.32	0.18	0.15	0.26	1.35	0.26	0.77	0.27	10.23
	CV (%)	4.49	4.60	0.57	0.68	0.71	0.85	1.07	0.82	1.17	5.33

S. No.	Clone	Stalk length (cm)	Stalk Diameter (cm)	Single Cane Wt. (kg)	Brix (%) (8 m)	Sucrose (%) (8 m)	Purity (%) (8 m)	CCS (%) (8 m)	No. of shoots ('000/ha)	No. of tillers ('000/ha)	Germination (%)
1	CoA 13 322	277.33	2.87	1.26	18.50	15.33	84.97	10.67	116.97	127.09	59.50
2	CoA 13 323	272.33	2.86	1.23	19.13	15.56	85.26	10.89	110.77	116.90	56.34
3	CoC 13 336	295.67	2.97	1.34	19.23	15.75	85.67	10.76	115.06	128.71	62.42
4	CoC 13 337	290.33	3.06	1.26	18.90	15.54	85.24	10.81	120.05	127.98	63.89
	CoV 13 356	265.33	2.70	1.03	18.23	15.05	83.71	10.18	109.76	120.18	60.94
	Standard										
1	CoC 01061	275.33	2.50	0.99	19.08	15.52	85.27	10.73	118.65	127.59	64.32
2	CoA 92081	265.67	2.72	1.23	18.75	15.11	84.51	10.36	110.09	115.79	50.74
	S.Ed.	6.90	0.06	0.07	0.21	0.15	0.37	0.12	3.55	5.16	6.29
	CD (0.05)	15.05	0.13	0.16	0.45	0.32	0.81	0.26	7.73	11.23	13.70
	CV (%)	3.05	2.63	7.43	1.35	1.17	0.54	1.40	3.80	5.12	12.89

Table 2. 1. CCS Yield (t/ha) at harvest

Clone	R I	R II	R III	Mean
CoA 13 322	15.92	16.66	15.60	16.06
CoA 13 323	15.50	15.14	16.35	15.66
CoC 13 336	18.04	17.90	18.75	18.23
CoC 13 337	18.34	17.49	17.97	17.93
CoV 13 356	15.96	16.42	14.60	15.66
Standard				
CoC 01061	14.99	14.10	14.38	14.49
CoA 92081	15.48	13.26	14.96	14.56
S.Ed				0.59
CD (0.05%)				1.29
CV (%)				4.49

Table 2. 2. Cane yield (t/ha) at harvest

Clone	R I	R II	R III	Mean
CoA 13 322	125.16	132.65	123.65	127.15
CoA 13 323	121.53	117.85	128.52	122.63
CoC 13 336	139.65	137.16	145.32	140.71
CoC 13 337	142.17	137.75	139.85	139.92
CoV 13 356	124.36	129.62	114.52	122.83
Standard				
CoC 01061	117.57	109.74	112.34	113.22
CoA 92081	122.82	107.35	120.16	116.78
S.Ed.				4.74
CD (0.05%)				10.32
CV (%)				4.60

Table 2. 3. Sucrose % at harvest

Clone	R I	R II	R III	Mean
CoA 13 322	17.67	17.52	17.61	17.60
CoA 13 323	17.55	17.68	17.75	17.66
CoC 13 336	18.02	17.92	17.97	17.97
CoC 13 337	17.67	17.82	17.76	17.75
CoV 13 356	17.85	17.75	17.55	17.72
Standard				
CoC 01061	17.84	17.6	17.7	17.71
CoA 92081	17.45	17.26	17.34	17.35
S.Ed				0.08
CD (0.05%)				0.18
CV (%)				0.57

Table 2. 4. CCS % at harvest

Clone	R I	R II	R III	Mean
CoA 13 322	12.72	12.56	12.62	12.63
CoA 13 323	12.75	12.85	12.72	12.77
CoC 13 336	12.92	13.05	12.90	12.96
CoC 13 337	12.90	12.70	12.85	12.82
CoV 13 356	12.83	12.67	12.75	12.75
Standard				
CoC 01061	12.75	12.85	12.8	12.80
CoA 92081	12.60	12.35	12.45	12.47
S.Ed				0.07
CD (0.05%)				0.15
CV (%)				0.68

Table 2. 5. Brix % at harvest

Clone	R I	R II	R III	Mean
CoA 13 322	20.27	20.10	20.45	20.27
CoA 13 323	20.52	20.60	20.45	20.52
CoC 13 336	20.92	21.10	20.75	20.92
CoC 13 337	20.63	20.90	20.71	20.75
CoV 13 356	20.74	20.62	20.85	20.74
Standard				
CoC 01061	20.65	20.95	20.72	20.77
CoA 92081	20.15	20.32	20.45	20.31
S.Ed				0.11
CD (0.05%)				0.26
CV (%)				0.71

Table 2. 6. Purity % at harvest

Clone	R I	R II	R III	Mean
CoA 13322	89.75	88.65	88.24	88.88
CoA 13323	89.85	90.13	89.76	89.91
CoC 13 336	90.56	90.12	89.82	90.17
CoC 13337	90.35	89.74	90.12	90.07
CoV 13 356	89.85	90.25	90.37	90.16
Standard				
CoC 01061	89.72	90.75	89.38	89.95
CoA 92081	86.41	89.25	88.75	88.14
S.Ed				0.62
CD (0.05%)				1.35
CV (%)				0.85

Table 2. 7. Pol. % (cane) at harvest

Clone	R I	R II	R III	Mean
CoA 13 322	13.42	13.64	13.82	13.63
CoA 13 323	13.95	13.85	13.77	13.86
CoC 13 336	13.95	13.86	14.05	13.95
CoC 13 337	13.9	13.87	13.95	13.91
CoV 13 356	13.62	13.75	13.85	13.74
Standard				
CoC 01 061	13.87	13.78	13.82	13.82
CoA 92 081	13.52	13.75	13.26	13.51
S.Ed				0.12
CD (0.05%)				0.26
CV (%)				1.07

Table 2. 8. Extraction % at harvest

Clone	R I	R II	R III	Mean
CoA 13322	51.85	52.35	52.55	52.25
CoA 13323	53.15	53.75	52.51	53.14
CoC 13 336	53.15	54.35	54.23	53.91
CoC 13337	52.85	52.45	52.75	52.68
CoV 13 356	52.25	52.25	52.62	52.37
Standard				
CoC 01061	52.16	52.81	52.95	52.64
CoA 92081	51.85	51.35	52.15	51.78
S.Ed.				0.35
CD (0.05%)				0.77
CV (%)				0.82

Table 2. 9. Fibre % at harvest

Clone	R I	R II	R III	Mean
CoA 13322	13.05	13.25	12.95	13.08
CoA 13323	12.95	12.76	12.68	12.80
CoC 13 336	12.71	12.75	12.64	12.70
CoC 13337	12.63	13.12	12.97	12.91
CoV 13 356	13.12	12.85	12.87	12.95
Standard				
CoC 01061	12.65	12.82	12.78	12.75
CoA 92081	12.97	13.16	12.78	12.97
S.Ed				0.12
CD (0.05%)				0.27
CV (%)				1.17

Table 2. 10. NMC ('000/ha) at harvest

Clone	R I	R II	R III	Mean
CoA 13 322	105.35	117.85	109.42	110.87
CoA 13 323	102.47	94.85	101.51	99.61
CoC 13 336	117.65	121.76	112.25	117.22
CoC 13 337	116.12	111.27	123.42	116.94
CoV 13 356	101.55	98.45	99.25	99.75
Standard				
CoC 01061	110.65	107.85	115.36	111.29
CoA 92081	100.82	108.74	92.53	100.70
S.Ed.				4.70
CD (0.05%)				10.23
CV (%)				5.33

Table 2. 11. Stalk length (cm) at harvest

Clone	R I	R II	R III	Mean
CoA 13 322	271	285	276	277.33
CoA 13 323	275	262	280	272.33
CoC 13 336	294	288	305	295.67
CoC 13 337	291	285	295	290.33
CoV 13 356	265	275	256	265.33
Standard				
CoC 01061	282	269	275	275.33
CoA 92081	275	265	257	265.67
SE,d.				6.90
CD (0.05%)				15.05
CV (%)				3.05

Table 2. 12. Stalk diameter (cm) at harvest

Clone	R I	R II	R III	Mean
CoA 13 322	2.95	2.81	2.85	2.87
CoA 13 323	2.80	2.85	2.92	2.86
CoC 13 336	2.95	2.92	3.05	2.97
CoC 13 337	2.95	3.07	3.15	3.06
CoV 13 356	2.64	2.72	2.75	2.70
Standard				
CoC 01061	2.55	2.55	2.41	2.50
CoA 92081	2.64	2.71	2.81	2.72
S.Ed.				0.06
CD (0.05%)				0.13
CV (%)				2.63

Table 2. 13. Single cane weight (kg) at harvest

Clone	R I	R II	R III	Mean
CoA 13 322	1.32	1.21	1.25	1.26
CoA 13 323	1.25	1.18	1.26	1.23
CoC 13 336	1.26	1.46	1.31	1.34
CoC 13 337	1.15	1.35	1.27	1.26
CoV 13 356	1.05	1.1	0.93	1.03
Standard				
CoC 01061	0.95	0.91	1.12	0.99
CoA 92081	1.22	1.18	1.29	1.23
S.Ed				0.07
CD (0.05%)				0.16
CV (%)				7.43

Table 2. 14. Brix % at 8th month

Clone	R I	R II	R III	Mean
CoA 13322	18.70	18.50	18.30	18.50
CoA 13323	19.30	18.70	19.40	19.13
CoC 13 336	19.25	19.35	19.10	19.23
CoC 13 337	18.50	19.00	19.20	18.90
CoV 13 356	18.10	18.1	18.50	18.23
Standard				
CoC 01061	19.20	18.9	19.15	19.08
CoA 92081	18.75	18.85	18.65	18.75
S.Ed				0.21
CD (0.05%)				0.45
CV (%)				1.35

Table 2. 15. Sucrose % 8th month

Clone	R I	R II	R III	Mean
CoA 13322	15.35	15.23	15.42	15.33
CoA 13323	15.55	15.47	15.65	15.56
CoC 13 336	15.65	15.85	15.75	15.75
CoC 13337	15.56	15.45	15.62	15.54
CoV 13 356	15.42	14.87	14.85	15.05
Standard				
CoC 01061	15.47	15.25	15.85	15.52
CoA 92081	15.21	14.86	15.25	15.11
S.Ed.				0.15
CD (0.05%)				0.32
CV (%)				1.17

Table 2. 16. Purity % 8th month

Clone	R I	R II	R III	Mean
CoA 13322	85.25	84.53	85.12	84.97
CoA 13323	85.37	85.25	85.17	85.26
CoC 13 336	86.52	85.15	85.35	85.67
CoC 13337	85.47	85.72	84.53	85.24
CoV 13 356	83.85	83.34	83.95	83.71
Standard				
CoC 01061	85.12	85.56	85.12	85.27
CoA 92081	84.93	83.82	84.78	84.51
S.Ed.				0.37
CD (0.05%)				0.81
CV (%)				0.54

Table 2. 17. CCS % 8th month

Clone	R I	R II	R III	Mean
CoA 13322	10.75	10.65	10.61	10.67
CoA 13323	11.27	10.74	10.65	10.89
CoC 13 336	10.71	10.75	10.83	10.76
CoC 13337	10.85	10.92	10.65	10.81
CoV 13 356	10.35	9.95	10.24	10.18
Standard				
CoC 01061	10.81	10.64	10.75	10.73
CoA 92081	10.45	10.25	10.37	10.36
S.Ed.				0.12
CD (0.05%)				0.26
CV (%)				1.40

Table 2. 18. No of Shoots ('000/ha) – 180 days

Clone	R I	R II	R III	Mean
CoA 13322	116.25	123.15	111.52	116.97
CoA 13323	110.45	113.21	108.65	110.77
CoC 13 336	116.25	118.75	110.17	115.06
CoC 13337	115.45	119.35	125.35	120.05
CoV 13 356	105.42	110.15	113.71	109.76
Standard				
CoC 01061	117.35	116.85	121.75	118.65
CoA 92081	109.85	106.14	114.27	110.09
S.Ed.				3.55
CD (0.05%)				7.73
CV (%)				3.80

Table 2. 19. No of tillers ('000/ha) – 120 days

Clone	R I	R II	R III	Mean
CoA 13322	121.65	131.15	128.46	127.09
CoA 13323	124.41	110.87	115.43	116.90
CoC 13 336	127.65	134.85	123.62	128.71
CoC 13337	128.67	123.42	131.86	127.98
CoV 13 356	124.73	120.16	115.65	120.18
Standard				
CoC 01061	121.38	126.14	135.25	127.59
CoA 92081	116.85	121.72	108.81	115.79
S.Ed.				5.16
CD (0.05%)				11.23
CV (%)				5.12

Table 2. 20. Germination per cent – 30 days

Clone	R I	R II	R III	Mean
CoA 13 322	52.62	65.4	60.47	59.50
CoA 13 323	59.32	48.13	61.57	56.34
CoC 13 336	51.93	63.27	72.05	62.42
CoC 13 337	66	61.36	64.32	63.89
CoV 13 356	69.32	52.35	61.16	60.94
Standard				
CoC 01061	54.5	75.36	63.1	64.32
CoA 92081	46.26	54.14	51.82	50.74
S.Ed				6.29
CD (0.05%)				13.70
CV (%)				12.89

3. Advanced Varietal Trial (Early) - II Plant

Entries (5)	:	CoA 12 321, CoA 12 322, CoA 12 323, CoOr 12 346 and CoV 12 356
Standards (3)	:	Co 6907, CoC 01061 and CoA 92081
Design	:	RBD
Replications	:	Three
Plot size	:	Gross: 6.0 m x 6 r x 0.90 m Net : 5.0 m x 4 r x 0.9 0m
Seed rate	:	12 buds /m
Date of Planting	:	23.02.2016
Crop duration	:	10 months

3. Advanced Varietal Trial (Early) - I Plant

A total of five clones and three standards were evaluated in RBD with three replications. The clone CoA 12322 recorded the higher CCS yield (17.45 t/ha) followed by the clone CoA 12321 (17.06 t/ha) and CoA 12323 (16.04 t/ha). The clone CoA 12322 recorded the higher cane yield (137.17 t/ha) followed by CoA 12 321 (135.92 t/ha) and CoA 12 323 (124.81 t/ha). The sucrose per cent was maximum in CoA 12323 (17.87 %) followed by the clone CoV 12 356 (17.76 %) and the standard CoC 01061 (17.73 %). (Table 3.1 to 3.20).

3. Advanced Varietal Trial (Early) – II Plant

S. No.	Clone	CCS yield (t/ha)	Cane yield (t/ha)	Sucrose (%) (10 m)	Brix (%) (10 m)	CCS (%) (10 m)	Purity (%) (10 m)	Pol. (%) cane (10 m)	Extraction (%) (10 m)	Fibre (%) (10 m)	NMC ('000/ha) (10 m)
1.	CoA 12 321	17.06	135.92	17.38	20.68	12.55	89.12	13.62	49.14	13.62	116.85
2.	CoA 12 322	17.45	137.17	17.71	20.64	12.72	88.95	13.58	50.18	13.27	117.93
3.	CoA 12 323	16.04	124.81	17.87	20.82	12.85	90.42	13.75	50.66	12.98	110.68
4.	CoOr 12 346	14.94	117.85	17.58	20.53	12.68	89.89	13.72	49.76	13.53	115.42
5.	CoV 12 356	15.71	122.74	17.76	21.02	12.80	90.42	13.91	50.21	13.48	107.45
	Standard										
1.	Co 6907	11.99	99.81	16.87	19.88	12.02	87.81	12.89	49.38	13.15	109.60
2.	CoC 01061	14.20	111.47	17.73	20.67	12.74	90.35	13.84	50.42	12.95	118.42
3.	CoA 92081	14.29	114.56	17.38	20.60	12.47	88.82	13.02	50.02	12.68	105.16
	S.Ed	0.62	5.04	0.15	0.17	0.10	0.8	0.23	0.21	0.27	5.7
	CD (0.05%)	1.31	10.68	0.31	0.36	0.21	2.12	0.48	0.45	0.58	12.08
	CV (%)	4.97	5.12	1.02	1.02	0.98	1.20	2.05	0.52	2.54	6.19

S. No.	Clone	Stalk length (cm)	Stalk Diameter (cm)	Single Cane Wt. (kg)	Brix (%) (8 m)	Sucrose (%) (8 m)	Purity (%) (8 m)	CCS (%) (8 m)	No. of shoots ('000/ha)	No. of tillers ('000/ha)	Germination (%)
1.	CoA 12 321	280.00	2.87	1.23	19.45	15.36	84.38	10.48	122.95	133.07	62.39
2.	CoA 12 322	294.33	2.78	1.31	19.47	15.31	85.24	10.45	120.84	132.40	61.12
3.	CoA 12 323	277.33	2.75	1.19	19.98	15.41	85.30	10.64	119.66	127.96	73.90
4.	CoOr 12 346	271.33	2.62	1.25	19.15	15.18	85.19	10.31	119.96	129.31	50.57
5.	CoV 12 356	265.33	2.71	1.37	20.10	15.57	85.65	10.70	117.83	124.77	51.32
	Standard										
1	Co 6907	264.00	2.61	1.10	19.22	14.84	83.51	10.15	113.84	125.26	55.15
2	CoC 01061	273.33	2.37	1.06	19.97	15.30	85.27	10.53	125.60	135.17	74.38
3.	CoA 92081	263.33	2.63	1.26	19.30	14.96	84.45	10.21	109.17	117.60	48.51
	S.Ed	6.51	0.08	0.07	0.25	0.18	0.46	0.15	4.43	5.16	3.36
	CD (0.05%)	13.82	0.17	0.16	0.53	0.38	0.98	0.32	9.39	10.95	7.12
	CV (%)	2.92	3.75	7.39	1.57	1.45	0.67	1.76	4.56	4.93	6.90

Table 3. 1. CCS Yield (t/ha) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	17.73	16.81	16.63	17.06
CoA 12 322	16.97	18.27	17.10	17.45
CoA 12 323	16.31	16.70	15.10	16.04
CoOr 12 346	15.47	14.66	14.69	14.94
CoV 12 356	15.40	15.62	16.10	15.71
Standard				
Co 6907	11.75	11.28	12.95	11.99
CoC 01061	13.18	15.18	14.25	14.20
CoA 92081	15.06	14.19	13.61	14.29
S.Ed				0.62
CD (0.05%)				1.31
CV (%)				4.97

Table 3. 2. Cane yield (t/ha) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	141.64	135.26	130.85	135.92
CoA 12 322	132.15	143.65	135.72	137.17
CoA 12 323	126.32	129.74	118.37	124.81
CoOr 12 346	121.64	114.55	117.36	117.85
CoV 12 356	119.85	122.62	125.75	122.74
Standard				
Co 6907	99.12	92.85	107.45	99.81
CoC 01061	103.55	118.23	112.64	111.47
CoA 92081	121.94	112.15	109.58	114.56
S.Ed				5.04
CD (0.05%)				10.68
CV (%)				5.12

Table 3. 3. Sucrose % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	17.45	17.05	17.65	17.38
CoA 12 322	17.65	17.9	17.58	17.71
CoA 12 323	17.80	17.95	17.85	17.87
CoOr 12 346	17.60	17.42	17.71	17.58
CoV 12 356	17.76	17.87	17.65	17.76
Standard				
Co 6907	16.65	17.12	16.85	16.87
CoC 01061	17.67	17.72	17.8	17.73
CoA 92081	17.25	17.55	17.33	17.38
S.Ed.				0.15
CD (0.05%)				0.31
CV (%)				1.02

Table 3. 4. CCS % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	12.52	12.43	12.71	12.55
CoA 12 322	12.84	12.72	12.60	12.72
CoA 12 323	12.91	12.87	12.76	12.85
CoOr 12 346	12.72	12.8	12.52	12.68
CoV 12 356	12.85	12.74	12.8	12.80
Standard				
Co 6907	11.85	12.15	12.05	12.02
CoC 01061	12.73	12.84	12.65	12.74
CoA 92081	12.35	12.65	12.42	12.47
S.Ed				0.10
CD (0.05%)				0.21
CV (%)				0.98

Table 3. 5. Brix % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	20.67	20.62	20.75	20.68
CoA 12 322	20.52	20.75	20.65	20.64
CoA 12 323	20.72	20.9	20.85	20.82
CoOr 12 346	20.46	20.61	20.53	20.53
CoV 12 356	20.95	21.02	21.1	21.02
Standard				
Co 6907	19.52	19.6	20.51	19.88
CoC 01061	20.25	20.91	20.85	20.67
CoA 92081	20.65	20.57	20.58	20.60
S.Ed.				0.17
CD (0.05%)				0.36
CV (%)				1.02

Table 3. 6. Purity % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	88.95	89.25	89.15	89.12
CoA 12 322	89.35	88.39	89.12	88.95
CoA 12 323	88.81	91.64	90.82	90.42
CoOr 12 346	89.52	89.83	90.31	89.89
CoV 12 356	91.15	90.25	89.85	90.42
Standard				
Co 6907	89.56	86.64	87.24	87.81
CoC 01061	89.95	90.85	90.24	90.35
CoA 92081	88.85	87.65	89.97	88.82
Sed				0.8
CD (0.05%)				2.12
CV (%)				1.20

Table 3. 7. Pol. % (cane) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	13.65	13.45	13.75	13.62
CoA 12 322	13.45	13.43	13.86	13.58
CoA 12 323	13.74	13.35	14.17	13.75
CoOr 12 346	13.45	14.15	13.55	13.72
CoV 12 356	13.74	13.95	14.05	13.91
Standard				
Co 6907	13.17	12.65	12.85	12.89
CoC 01061	14.12	13.46	13.95	13.84
CoA 92081	13.25	12.85	12.95	13.02
S.Ed				0.23
CD (0.05%)				0.48
CV (%)				2.05

Table 3. 8. Extraction % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	48.92	49.15	49.35	49.14
CoA 12 322	50.26	50.13	50.15	50.18
CoA 12 323	50.41	50.32	51.24	50.66
CoOr 12 346	49.91	49.72	49.65	49.76
CoV 12 356	50.05	50.25	50.32	50.21
Standard				
Co 6907	49.65	48.95	49.55	49.38
CoC 01061	50.65	50.35	50.27	50.42
CoA 92081	49.85	50.15	50.07	50.02
S.Ed				0.21
CD (0.05%)				0.45
CV (%)				0.52

Table 3. 9. Fibre % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	13.65	13.55	13.65	13.62
CoA 12 322	12.74	13.32	13.75	13.27
CoA 12 323	12.85	13.14	12.95	12.98
CoOr 12 346	13.12	14.15	13.32	13.53
CoV 12 356	13.37	13.32	13.75	13.48
Standard				
Co 6907	13.52	12.78	13.15	13.15
CoC 01061	13.15	12.75	12.95	12.95
CoA 92081	12.54	12.85	12.65	12.68
S.Ed				0.27
CD (0.05%)				0.58
CV (%)				2.54

Table 3. 10. NMC ('000/ha) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	116.95	127.45	106.15	116.85
CoA 12 322	126.35	117.12	110.32	117.93
CoA 12 323	112.84	116.85	102.36	110.68
CoOr 12 346	117.62	107.81	120.82	115.42
CoV 12 356	102.35	111.26	108.75	107.45
Standard				
Co 6907	108.79	117.47	102.54	109.60
CoC 01061	120.95	122.45	111.85	118.42
CoA 92081	111.25	97.68	106.56	105.16
S.Ed				5.7
CD (0.05%)				12.08
CV (%)				6.19

Table 3. 11. Stalk length (cm) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	285	275	280	280.00
CoA 12 322	295	287	301	294.33
CoA 12 323	275	285	272	277.33
CoOr 12 346	272	267	275	271.33
CoV 12 356	265	260	271	265.33
Standard				
Co 6907	256	271	265	264.00
CoC 01061	271	287	262	273.33
CoA 92081	275	261	254	263.33
S.Ed				6.51
CD (0.05%)				13.82
CV (%)				2.92

Table 3. 12. Stalk diameter (cm) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	2.95	2.85	2.81	2.87
CoA 12 322	2.72	2.85	2.78	2.78
CoA 12 323	2.75	2.64	2.86	2.75
CoOr 12 346	2.45	2.66	2.74	2.62
CoV 12 356	2.57	2.81	2.75	2.71
Standard				
Co 6907	2.55	2.62	2.66	2.61
CoC 01061	2.45	2.35	2.32	2.37
CoA 92081	2.71	2.62	2.55	2.63
S.Ed				0.08
CD (0.05%)				0.17
CV (%)				3.75

Table 3. 13. Single cane weight (kg) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	1.23	1.26	1.21	1.23
CoA 12 322	1.27	1.31	1.35	1.31
CoA 12 323	1.15	1.35	1.07	1.19
CoOr 12 346	1.35	1.15	1.26	1.25
CoV 12 356	1.38	1.41	1.32	1.37
Standard				
Co 6907	1.23	1.15	0.92	1.10
CoC 01061	1.15	0.97	1.05	1.06
CoA 92081	1.31	1.29	1.18	1.26
S.Ed				0.07
CD (0.05%)				0.16
CV (%)				7.39

Table 3. 14. Brix % at 8th month

Clone	R I	R II	R III	Mean
CoA 12 321	19.60	19.40	19.35	19.45
CoA 12 322	19.47	19.42	19.51	19.47
CoA 12 323	20.15	19.85	19.95	19.98
CoOr 12 346	19.12	19.10	19.24	19.15
CoV 12 356	19.85	20.15	20.31	20.10
Standard				
Co 6907	18.42	19.32	19.91	19.22
CoC 01061	20.15	19.85	19.92	19.97
CoA 92081	19.31	19.45	19.15	19.30
S.Ed.				0.25
CD (0.05)				0.53
CV (%)				1.57

Table 3. 15. Sucrose % 8th month

Clone	R I	R II	R III	Mean
CoA 12 321	15.27	15.35	15.45	15.36
CoA 12 322	15.25	15.32	15.37	15.31
CoA 12 323	15.27	15.81	15.15	15.41
CoOr 12 346	15.21	14.92	15.42	15.18
CoV 12 356	15.42	15.72	15.56	15.57
Standard				
Co 6907	14.71	14.95	14.85	14.84
CoC 01061	15.62	15.31	14.98	15.30
CoA 92081	15.05	14.85	14.97	14.96
S.Ed				0.18
CD (0.05%)				0.38
CV (%)				1.45

Table 3. 16. Purity % 8th month

Clone	R I	R II	R III	Mean
CoA 12 321	84.25	83.65	85.24	84.38
CoA 12 322	85.15	85.25	85.33	85.24
CoA 12 323	85.95	85.52	84.42	85.30
CoOr 12 346	85.41	85.72	84.45	85.19
CoV 12 356	85.45	86.25	85.24	85.65
Standard				
Co 6907	83.65	83.31	83.57	83.51
CoC 01061	85.25	85.45	85.12	85.27
CoA 92081	84.65	83.85	84.85	84.45
S.Ed				0.46
CD (0.05%)				0.98
CV (%)				0.67

Table 3. 17. CCS % 8th month

Clone	R I	R II	R III	Mean
CoA 12 321	10.35	10.67	10.42	10.48
CoA 12 322	10.27	10.75	10.34	10.45
CoA 12 323	10.51	10.68	10.72	10.64
CoOr 12 346	10.42	10.27	10.24	10.31
CoV 12 356	10.85	10.82	10.42	10.70
Standard				
Co 6907	10.15	10.06	10.24	10.15
CoC 01061	10.37	10.47	10.74	10.53
CoA 92081	10.35	10.32	9.95	10.21
S.Ed				0.15
CD (0.05%)				0.32
CV (%)				1.76

Table 3. 18. No of Shoots ('000/ha) – 180 days

Clone	R I	R II	R III	Mean
CoA 12 321	122.15	119.541	127.157	122.95
CoA 12 322	121.52	115.65	125.35	120.84
CoA 12 323	115.35	119.16	124.47	119.66
CoOr 12 346	118.25	115.27	126.35	119.96
CoV 12 356	108.525	126.624	118.35	117.83
Standard				
Co 6907	105.51	115.37	120.65	113.84
CoC 01061	125.82	131.45	119.526	125.60
CoA 92081	107.642	105.51	114.35	109.17
S.Ed				4.43
CD (0.05%)				9.39
CV (%)				4.56

Table 3. 19. No of tillers ('000/ha) – 120 days

Clone	R I	R II	R III	Mean
CoA 12 321	132.75	140.32	126.15	133.07
CoA 12 322	135.64	128.82	132.75	132.40
CoA 12 323	132.63	125.67	125.57	127.96
CoOr 12 346	133.24	124.55	130.15	129.31
CoV 12 356	122.61	127.15	124.55	124.77
Standard				
Co 6907	117.16	135.16	123.46	125.26
CoC 01061	135.65	141.12	128.75	135.17
CoA 92081	127.72	109.25	115.34	117.60
S.Ed				5.16
CD (0.05%)				10.95
CV (%)				4.93

Table 3. 20. Germination % – 30 days

Clone	R I	R II	R III	Mean
CoA 12 321	62.47	65.45	59.25	62.39
CoA 12 322	63.54	59.2	60.63	61.12
CoA 12 323	77.86	68.15	75.69	73.90
CoOr 12 346	53.29	50.69	47.74	50.57
CoV 12 356	57.5	46.52	49.93	51.32
Standard				
Co 6907	58.85	51.21	55.38	55.15
CoC 01061	67.45	77.21	78.47	74.38
CoA 92081	48.61	45.56	51.37	48.51
S.Ed				3.36
CD (0.05%)				7.12
CV (%)				6.90

4. Advanced Varietal Trial (Early) – Ratoon

Entries (5)	:	CoA 12321, CoA 12322, CoA 12323, CoOr 12346 and CoV 12356
Standards (3)	:	Co 6907, CoC 01061 and CoA 92081
Design	:	RBD
Replications	:	Three
Plot size	:	Gross: 6.0 m x 8 r x 0.90 m Net : 5.0 m x 6 r x 0.9 0 m
Date of ratoon	:	13.04.2016
Crop duration	:	10 months

4. Advanced Varietal Trial (Early) – Ratoon

A total of five clones and three standards were evaluated in RBD with three replications. The clone CoA 12322 recorded higher CCS yield (15.47 t/ha) followed by the CoA 12321 (15.21 t/ha) and CoA 12323 (15.08 t/ha). For cane yield, the clone CoA 12322 recorded the higher cane yield (122.49 t/ha) followed by CoA 12321 (121.21 t/ha) and CoA 12323 (118.57 t/ha). The sucrose per cent was maximum in CoA 12323 (17.86 %) followed by the clone CoV 12 356 (17.74 %) and CoA 12 322 (17.74 %). (Table 4.1 to 4.19).

4. Advanced Varietal Trial (Early) – Ratoon

S. No.	Clone	CCS yield (t/ha)	Cane yield (t/ha)	Sucrose (%) (10 m)	Brix (%) (10 m)	CCS (%) (10 m)	Purity (%) (10 m)	Pol. (%) cane (10 m)	Extraction (%) (10 m)	Fibre (%) (10 m)	NMC ('000/ha) (10 m)
1.	CoA 12 321	15.21	121.21	17.51	20.52	12.55	89.42	13.27	49.48	13.78	102.89
2.	CoA 12 322	15.47	122.49	17.73	20.70	12.63	89.71	13.38	50.57	13.31	103.09
3.	CoA 12 323	15.08	118.57	17.86	20.77	12.72	90.42	13.76	50.62	13.27	101.26
4.	CoOr 12 346	14.08	110.92	17.65	20.36	12.69	89.88	13.57	50.34	13.36	112.69
5.	CoV 12 356	14.66	115.24	17.74	21.03	12.72	90.18	14.02	50.88	13.41	97.43
	Standard										
1.	Co 6907	11.29	94.38	16.72	19.80	11.96	88.22	12.92	49.22	13.14	107.05
2.	CoC 01061	12.74	100.52	17.73	20.83	12.67	90.34	13.94	50.42	13.45	107.39
3.	CoA 92081	13.21	105.59	17.14	20.42	12.51	89.12	13.10	49.62	12.84	97.96
	S.Ed	0.67	4.88	0.11	0.16	0.10	0.65	0.26	0.27	0.21	5.46
	CD (0.05)	1.41	10.34	0.24	0.34	0.22	1.39	0.55	0.57	0.44	11.59
	CV (%)	5.84	5.37	0.80	0.96	1.02	0.89	2.34	0.65	1.92	6.45

S. No.	Clone	Stalk length (cm)	Stalk Diameter (cm)	Single Cane Wt. (kg)	Brix (%) (8 m)	Sucrose (%) (8 m)	Purity (%) (8 m)	CCS (%) (8 m)	No. of shoots ('000/ha)	No. of tillers ('000/ha)
1.	CoA 12 321	275.00	2.84	1.24	19.43	15.41	85.21	10.61	112.58	128.08
2.	CoA 12 322	283.50	2.82	1.21	19.44	15.26	85.14	10.52	109.88	123.24
3.	CoA 12 323	272.00	2.75	1.25	19.77	15.64	85.76	10.70	113.70	120.89
4.	CoOr 12 346	272.67	2.74	1.19	19.24	15.23	85.43	10.43	117.47	127.56
5.	CoV 12 356	265.33	2.71	1.20	20.10	15.68	85.88	10.71	110.87	126.18
	Standard									
1.	Co 6907	270.00	2.65	1.11	19.22	14.66	84.18	10.22	116.38	125.26
2.	CoC 01061	271.67	2.35	1.05	19.85	15.53	85.20	10.65	124.58	136.97
3.	CoA 92081	261.67	2.70	1.29	19.41	15.05	84.35	10.36	103.02	115.79
	S.Ed	6.15	0.08	0.07	0.25	0.17	0.36	0.13	5.07	5.22
	CD (0.05)	13.04	0.18	0.14	0.52	0.35	0.76	0.27	10.74	11.06
	CV (%)	2.78	3.84	6.78	1.55	1.31	0.52	1.49	5.47	5.09

AVT (Early) – Ratoon

Table 4. 1. CCS yield (t/ha) at Harvest

Clone	R I	R II	R III	Mean
CoA 12 321	14.96	15.04	15.62	15.21
CoA 12 322	15.59	15.92	14.91	15.47
CoA 12 323	15.13	14.82	15.27	15.08
CoOr 12 346	14.18	14.85	13.21	14.08
CoV 12 356	13.77	14.61	15.61	14.66
Standard				
Co 6907	11.55	10.37	11.94	11.29
CoC 01061	12.95	11.59	13.69	12.74
CoA 92081	12.78	14.35	12.50	13.21
S.Ed				0.67
CD (0.05%)				1.41
CV (%)				5.84

Table 4. 2. Cane yield (t/ha) at Harvest

Clone	R I	R II	R III	Mean
CoA 12 321	118.56	120.84	124.23	121.21
CoA 12 322	122.25	127.26	117.95	122.49
CoA 12 323	118.65	115.36	121.71	118.57
CoOr 12 346	111.23	115.92	105.62	110.92
CoV 12 356	108.27	115.62	121.84	115.24
Standard				
Co 6907	95.46	87.74	99.93	94.38
CoC 01061	101.58	92.35	107.64	100.52
CoA 92081	103.29	113.64	99.85	105.59
S.Ed				4.88
CD (0.05%)				10.34
CV (%)				5.37

Table 4. 3. Sucrose % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	17.37	17.54	17.63	17.51
CoA 12 322	17.75	17.82	17.61	17.73
CoA 12 323	17.80	17.83	17.95	17.86
CoOr 12 346	17.65	17.53	17.76	17.65
CoV 12 356	17.74	17.65	17.84	17.74
Standard				
Co 6907	16.35	16.85	16.95	16.72
CoC 01061	17.75	17.61	17.82	17.73
CoA 92081	16.95	17.15	17.31	17.14
S.Ed				0.11
CD (0.05%)				0.24
CV (%)				0.80

Table 4. 4. CCS % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	12.62	12.45	12.57	12.55
CoA 12 322	12.75	12.51	12.64	12.63
CoA 12 323	12.75	12.85	12.55	12.72
CoOr 12 346	12.75	12.81	12.51	12.69
CoV 12 356	12.72	12.64	12.81	12.72
Standard				
Co 6907	12.1	11.82	11.95	11.96
CoC 01061	12.75	12.55	12.72	12.67
CoA 92081	12.37	12.63	12.52	12.51
S.Ed				0.10
CD (0.05%)				0.22
CV (%)				1.02

Table 4. 5. Brix % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	20.75	20.55	20.25	20.52
CoA 12 322	20.62	20.78	20.71	20.70
CoA 12 323	20.57	21.10	20.64	20.77
CoOr 12 346	20.42	20.16	20.51	20.36
CoV 12 356	21.15	21.00	20.95	21.03
Standard				
Co 6907	19.75	19.65	20.00	19.80
CoC 01061	20.92	20.72	20.85	20.83
CoA 92081	20.42	20.63	20.22	20.42
S.Ed				0.16
CD (0.05%)				0.34
CV (%)				0.96

Table 4. 6. Purity % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	89.65	89.25	89.35	89.42
CoA 12 322	89.75	90.25	89.12	89.71
CoA 12 323	88.81	91.64	90.82	90.42
CoOr 12 346	89.65	89.83	90.15	89.88
CoV 12 356	90.85	90.36	89.34	90.18
Standard				
Co 6907	89.56	87.85	87.24	88.22
CoC 01061	90.12	90.65	90.24	90.34
CoA 92081	89.25	88.75	89.37	89.12
S.Ed				0.65
CD (0.05%)				1.39
CV (%)				0.89

Table 4. 7. Pol. % (cane) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	13.25	13.1	13.45	13.27
CoA 12 322	12.85	13.43	13.86	13.38
CoA 12 323	13.65	13.55	14.07	13.76
CoOr 12 346	13.25	14.15	13.32	13.57
CoV 12 356	13.87	14.25	13.93	14.02
Standard				
Co 6907	13.17	12.75	12.85	12.92
CoC 01061	14.15	13.72	13.95	13.94
CoA 92081	13.1	13.05	13.15	13.10
S.Ed				0.26
CD (0.05%)				0.55
CV (%)				2.34

Table 4. 8. Extraction % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	49.65	49.25	49.55	49.48
CoA 12 322	50.65	50.35	50.72	50.57
CoA 12 323	50.31	50.32	51.24	50.62
CoOr 12 346	50.52	50.35	50.15	50.34
CoV 12 356	51.25	50.85	50.55	50.88
Standard				
Co 6907	49.45	48.95	49.25	49.22
CoC 01061	50.65	50.35	50.27	50.42
CoA 92081	49.85	48.85	50.15	49.62
S.Ed				0.27
CD (0.05%)				0.57
CV (%)				0.65

Table 4. 9. Fibre % at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	13.74	13.88	13.72	13.78
CoA 12 322	12.95	13.32	13.65	13.31
CoA 12 323	13.45	13.14	13.22	13.27
CoOr 12 346	13.12	13.65	13.32	13.36
CoV 12 356	13.55	13.32	13.35	13.41
Standard				
Co 6907	13.52	12.75	13.15	13.14
CoC 01061	13.35	13.55	13.46	13.45
CoA 92081	12.65	13.12	12.75	12.84
S.Ed				0.21
CD (0.05%)				0.44
CV (%)				1.92

Table 4. 10. NMC ('000/ha) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	102.57	97.15	108.94	102.89
CoA 12 322	108.45	101.65	99.16	103.09
CoA 12 323	102.15	99.26	102.36	101.26
CoOr 12 346	114.62	104.81	118.64	112.69
CoV 12 356	101.18	92.35	98.75	97.43
Standard				
Co 6907	97.15	115.65	108.35	107.05
CoC 01061	99.16	117.45	105.56	107.39
CoA 92081	93.62	102.81	97.44	97.96
S.Ed				5.46
CD (0.05%)				11.59
CV (%)				6.45

Table 4. 11. Stalk length (cm) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	275	265	285	275.00
CoA 12 322	285	290	275.5	283.50
CoA 12 323	280	275	261	272.00
CoOr 12 346	277	276	265	272.67
CoV 12 356	265	260	271	265.33
Standard				
Co 6907	265	270	275	270.00
CoC 01061	275	275	265	271.67
CoA 92081	270	261	254	261.67
S.Ed.				6.15
CD (0.05%)				13.04
CV (%)				2.78

Table 4. 12. Stalk diameter (cm) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	2.92	2.85	2.74	2.84
CoA 12 322	2.85	2.77	2.83	2.82
CoA 12 323	2.75	2.64	2.86	2.75
CoOr 12 346	2.65	2.75	2.81	2.74
CoV 12 356	2.57	2.81	2.75	2.71
Standard				
Co 6907	2.55	2.66	2.74	2.65
CoC 01061	2.45	2.25	2.35	2.35
CoA 92081	2.85	2.61	2.65	2.70
S.Ed				0.08
CD (0.05%)				0.18
CV (%)				3.84

Table 4. 13. Single cane weight (kg) at harvest

Clone	R I	R II	R III	Mean
CoA 12 321	1.25	1.27	1.21	1.24
CoA 12 322	1.22	1.17	1.25	1.21
CoA 12 323	1.15	1.35	1.26	1.25
CoOr 12 346	1.25	1.15	1.17	1.19
CoV 12 356	1.27	1.12	1.22	1.20
Standard				
Co 6907	1.23	1.15	0.95	1.11
CoC 01061	1.15	0.97	1.02	1.05
CoA 92081	1.35	1.21	1.30	1.29
S.Ed				0.07
CD (0.05%)				0.14
CV (%)				6.78

Table 4. 14. Brix % at 8th month

Clone	R I	R II	R III	Mean
CoA 12 321	19.55	19.4	19.35	19.43
CoA 12 322	19.35	19.45	19.52	19.44
CoA 12 323	19.75	19.85	19.71	19.77
CoOr 12 346	19.12	19.35	19.24	19.24
CoV 12 356	19.85	20.15	20.31	20.10
Standard				
Co 6907	18.42	19.32	19.91	19.22
CoC 01061	20.15	19.65	19.76	19.85
CoA 92081	19.42	19.35	19.45	19.41
S.Ed				0.25
CD (0.05%)				0.52
CV (%)				1.55

Table 4. 15. Sucrose % 8th month

Clone	R I	R II	R III	Mean
CoA 12 321	15.27	15.81	15.15	15.41
CoA 12 322	15.25	15.15	15.37	15.26
CoA 12 323	15.53	15.75	15.65	15.64
CoOr 12 346	15.21	15.05	15.42	15.23
CoV 12 356	15.57	15.82	15.65	15.68
Standard				
Co 6907	14.71	14.95	14.32	14.66
CoC 01061	15.62	15.43	15.55	15.53
CoA 92081	15.12	15.05	14.97	15.05
S.Ed				0.17
CD (0.05%)				0.35
CV (%)				1.31

Table 4. 16. Purity % 8th month

Clone	R I	R II	R III	Mean
CoA 12 321	85.15	85.25	85.24	85.21
CoA 12 322	84.85	85.25	85.33	85.14
CoA 12 323	85.95	86.17	85.15	85.76
CoOr 12 346	85.35	85.72	85.23	85.43
CoV 12 356	85.75	86.35	85.54	85.88
Standard				
Co 6907	83.65	84.25	84.65	84.18
CoC 01061	84.52	85.82	85.27	85.20
CoA 92081	84.35	83.75	84.95	84.35
S.Ed				0.36
CD (0.05%)				0.76
CV (%)				0.52

Table 4. 17. CCS % 8th month

Clone	R I	R II	R III	Mean
CoA 12 321	10.65	10.67	10.52	10.61
CoA 12 322	10.45	10.75	10.37	10.52
CoA 12 323	10.55	10.71	10.85	10.70
CoOr 12 346	10.42	10.32	10.55	10.43
CoV 12 356	10.85	10.82	10.45	10.71
Standard				
Co 6907	10.25	10.05	10.35	10.22
CoC 01061	10.55	10.65	10.74	10.65
CoA 92081	10.45	10.35	10.27	10.36
S.Ed				0.13
CD (0.05%)				0.27
CV (%)				1.49

Table 4. 18. No of Shoots ('000/ha) – 180 days

Clone	R I	R II	R III	Mean
CoA 12 321	101.75	115.65	120.35	112.58
CoA 12 322	108.39	106.13	115.13	109.88
CoA 12 323	107.38	120.25	113.45	113.70
CoOr 12 346	110.35	125.62	116.45	117.47
CoV 12 356	115.52	106.85	110.25	110.87
Standard				
Co 6907	107.35	124.25	117.527	116.38
CoC 01061	125.25	130.15	118.35	124.58
CoA 92081	105.65	103.25	100.15	103.02
S.Ed				5.07
CD (0.05%)				10.74
CV (%)				5.47

Table 4. 19. No of tillers ('000/ha) – 120 days

Clone	R I	R II	R III	Mean
CoA 12 321	127.95	122.45	133.85	128.08
CoA 12 322	128.65	115.71	125.36	123.24
CoA 12 323	125.45	119.56	117.65	120.89
CoOr 12 346	135.65	121.87	125.17	127.56
CoV 12 356	127.34	117.64	133.56	126.18
Standard				
Co 6907	117.16	135.16	123.46	125.26
CoC 01061	137.22	139.37	134.32	136.97
CoA 92081	121.68	109.25	116.43	115.79
S.Ed.(%)				5.22
CD (0.05%)				11.06
CV (%)				5.09

5. Initial Varietal Trial (Mid-late) - (Centre – Cuddalore)

Entries (12)	:	Co 013 025, Co 013 027, Co 013 028, Co 013 029, Co 013 030, Co 013 031, Co 013 032, CoA 14323, CoA 14324, CoC 14337, PI 14 376 and PI 14 377
Standards (2)	:	CoV 92012 and Co 86249
Design	:	RBD
Replications	:	Two
Plot size	:	Gross: 6.0 m x 6 r x 0.9 m Net : 5.0 m x 4 r x 0.9 m
Seed rate	:	12 buds/m
Date of Planting	:	01.03.2016
Crop duration	:	12 months

5. Initial Varietal Trial (Mid-late)

A total of twelve clones and two standards were evaluated in RBD with two replications during 2016-17. The clone CoC 14 337 recorded higher CCS yield (18.27 t/ha) followed by the clone CoA 14 323 (17.13 t/ha) and Co 13 028 (16.44 t/ha). The Cane yield was maximum in the clone CoC 14337 (142.76 t/ha) followed by the clone CoA 14324 (133.68 t/ha) and CoA 14323 (131.43 t/ha). The sucrose content was maximum in the clone CoA 14323 (18.25 %) followed by the clone PI 14 376 (17.75 %) and CoC 14337 (17.65%) (Table 5.1 – 5.20).

5. IVT (Mid-late) – Cuddalore Centre (ECZ)

S. No.	Clone	CCS (t/ha)	Cane yield (t/ha)	Sucrose (%) (12 m)	Brix (%) (12 m)	Purity (%) (12 m)	CCS (%) (12 m)	Pol.(%) (cane) (12 m)	Extrac-tion.(%) (12 m)	Fibre (%) (12 m)	NMC ('000/ha) (12 m)
1	Co 13 025	15.41	124.31	17.15	20.46	88.75	12.40	13.34	49.10	13.60	108.83
2	Co 13 027	14.90	122.14	16.91	19.35	88.73	12.20	13.25	48.50	13.54	101.10
3	Co 13 028	16.44	130.32	17.13	20.50	89.60	12.62	13.30	48.90	13.75	109.56
4	Co 13 029	15.80	124.51	17.45	20.60	89.75	12.70	13.50	49.62	13.39	110.15
5	Co 13 030	15.98	129.88	16.95	19.77	88.14	12.31	13.23	48.25	13.60	110.29
6	Co 13 031	16.72	131.05	17.45	20.61	90.12	12.76	13.47	50.71	13.35	104.25
7	Co 13 032	16.09	125.34	17.65	20.80	89.87	12.84	13.66	49.50	13.47	103.10
8	CoA 14 323	17.13	131.43	18.25	21.20	90.54	13.04	13.95	50.64	13.04	106.54
9	CoA 14 324	16.95	133.68	17.15	20.33	88.61	12.68	13.34	48.91	13.40	109.96
10	CoC 14 337	18.27	142.76	17.65	20.75	89.84	12.80	13.68	49.97	13.38	120.40
11	PI 14 376	16.05	125.11	17.75	20.91	90.12	12.83	13.84	50.05	13.18	101.52
12	PI 14 377	16.30	128.35	17.52	20.60	89.75	12.70	13.65	50.01	13.37	103.15
Standard											
1.	CoV 92102	15.61	121.86	17.64	20.80	90.08	12.81	13.76	50.10	13.30	96.00
2.	Co 86249	13.68	114.55	16.20	19.50	88.00	11.95	13.27	48.34	13.56	112.40
	S.Ed.	0.47	3.64	0.09	0.07	0.35	0.07	0.15	0.26	0.07	3.72
	CD (0.05)	1.42	11.13	0.26	0.20	1.07	0.20	0.47	0.80	0.22	11.37
	CV (%)	4.09	4.04	0.70	0.46	0.55	0.75	1.62	0.75	0.77	4.92

5. IVT (Mid-late)

S. No.	Clone	Stalk length (cm)	Stalk Diameter (cm)	Single Cane Wt. (kg)	Brix (%) (10 m)	Sucrose (%) (10 m)	Purity (%) (10 m)	CCS (%) (10 m)	No. of shoots ('000/ha)	No. of tillers ('000/ha)	Germination (%)
1	Co 13 025	271.00	2.60	1.20	18.90	15.10	84.23	10.62	109.37	120.64	60.87
2	Co 13 027	268.50	2.74	1.28	18.60	14.90	84.10	10.31	105.04	118.09	51.87
3	Co 13 028	273.18	2.77	1.27	19.08	15.48	84.98	10.66	114.96	119.04	59.17
4	Co 13 029	271.00	2.81	1.20	19.20	15.60	85.13	10.62	114.30	118.80	60.33
5	Co 13 030	280.00	3.00	1.23	18.65	14.95	83.51	10.31	115.39	120.37	66.13
6	Co 13 031	276.93	2.67	1.26	19.40	15.44	85.49	10.48	112.55	118.24	61.11
7	Co 13 032	258.68	2.60	1.29	19.30	15.56	85.24	10.78	109.37	120.49	59.26
8	CoA 14 323	275.88	2.80	1.28	19.60	15.68	85.91	11.10	116.41	122.36	56.94
9	CoA 14 324	278.67	2.45	1.11	18.90	15.06	83.99	10.50	115.70	123.14	62.74
10	CoC 14 337	280.00	3.01	1.40	19.25	15.58	85.21	10.76	131.39	143.94	67.84
11	PI 14 376	258.43	2.70	1.30	19.28	15.76	85.47	10.90	103.30	115.75	57.17
12	PI 14 377	268.00	2.81	1.20	19.20	15.56	85.13	10.66	112.85	120.30	60.32
Standard											
1	CoV 92102	268.00	2.62	1.25	19.56	15.60	85.48	10.80	111.14	118.10	59.91
2	Co 86249	250.75	2.48	1.01	18.70	14.95	83.38	10.50	116.90	123.01	66.16
	S.Ed.	4.76	0.05	0.05	0.16	0.14	0.34	0.07	3.75	3.79	4.87
	CD (0.05%)	14.53	0.17	0.16	0.48	0.44	1.05	0.2	11.72	11.58	14.87
	CV (%)	2.49	2.86	5.90	1.16	1.31	0.57	0.89	4.67	4.41	11.35

5. IVT (Mid-late)

Table 5. 1. CCS Yield (t/ha) at harvest (12th month)

Clone	R I	R II	Mean
Co 13 025	15.69	15.12	15.41
Co 13 027	14.55	15.25	14.90
Co 13 028	15.97	16.91	16.44
Co 13 029	16.24	15.37	15.80
Co 13 030	16.23	15.73	15.98
Co 13 031	16.39	17.06	16.72
Co 13 032	16.84	15.33	16.09
CoA 14 323	16.84	17.42	17.13
CoA 14 324	17.34	16.56	16.95
CoC 14 337	18.67	17.88	18.27
PI 14 376	15.34	16.76	16.05
PI 14 377	16.89	15.71	16.30
Standard			
CoV 92102	15.14	16.08	15.61
Co 86249	13.78	13.59	13.68
SE.d.			0.47
CD (0.05)			1.42
CV (%)			4.09

Table 5. 2. Cane yield (t/ha) at harvest

Clone	R I	R II	Mean
Co 13 025	127.35	121.27	124.31
Co 13 027	119.72	124.56	122.14
Co 13 028	127.26	133.38	130.32
Co 13 029	128.37	120.65	124.51
Co 13 030	132.42	127.34	129.88
Co 13 031	128.84	133.25	131.05
Co 13 032	131.35	119.32	125.34
CoA 14 323	128.32	134.53	131.43
CoA 14 324	136.45	130.91	133.68
CoC 14 337	145.64	139.87	142.76
PI 14 376	119.75	130.46	125.11
PI 14 377	132.54	124.16	128.35
CoV 92102	118.45	125.27	121.86
Co 86249	117.24	111.85	114.55
SEm±			3.64
CD (0.05%)			11.13
CV (%)			4.04

Table 5. 3. Sucrose % at harvest

Clone	R I	R II	Mean
Co 13 025	17.07	17.22	17.15
Co 13 027	17.02	16.8	16.91
Co 13 028	17.21	17.05	17.13
Co 13 029	17.42	17.48	17.45
Co 13 030	16.84	17.06	16.95
Co 13 031	17.55	17.34	17.45
Co 13 032	17.72	17.58	17.65
CoA 14 323	18.32	18.17	18.25
CoA 14 324	17.11	17.19	17.15
CoC 14 337	17.62	17.67	17.65
PI 14 376	17.78	17.71	17.75
PI 14 377	17.46	17.57	17.52
Standards			
CoV 92102	17.66	17.62	17.64
Co 86249	16.02	16.37	16.20
SEm±			0.09
CD (0.05%)			0.26
CV (%)			0.70

Table 5. 4. CCS % at harvest

Clone	R I	R II	Mean
Co 13 025	12.32	12.47	12.40
Co 13 027	12.15	12.24	12.20
Co 13 028	12.55	12.68	12.62
Co 13 029	12.65	12.74	12.70
Co 13030	12.26	12.35	12.31
Co 13031	12.72	12.80	12.76
Co 13032	12.82	12.85	12.84
CoA 14 323	13.12	12.95	13.04
CoA 14 324	12.71	12.65	12.68
CoC 14 337	12.82	12.78	12.80
PI 14 376	12.81	12.85	12.83
PI 14 377	12.74	12.65	12.70
Standards			
CoV 92102	12.78	12.84	12.81
Co 86249	11.75	12.15	11.95
SEm±			0.07
CD (0.05%)			0.20
CV (%)			0.75

Table 5. 5. Brix % at harvest

Clone	R I	R II	Mean
Co 13025	20.57	20.35	20.46
Co 13027	19.25	19.45	19.35
Co 13028	20.57	20.42	20.50
Co 13029	20.65	20.55	20.60
Co 13030	19.72	19.82	19.77
Co 13031	20.52	20.70	20.61
Co 13032	20.75	20.85	20.80
CoA 14 323	21.15	21.25	21.20
CoA 14 324	20.25	20.41	20.33
CoC 14 337	20.65	20.85	20.75
PI 14 376	20.87	20.94	20.91
PI 14 377	20.55	20.65	20.60
Standards			
CoV 92102	20.75	20.85	20.8
Co 86249	19.42	19.57	19.50
SEm±			0.07
CD (0.05%)			0.20
CV (%)			0.46

Table 5. 6. Purity % at harvest

Clone	R I	R II	Mean
Co 13025	88.65	88.85	88.75
Co 13027	88.95	88.50	88.73
Co 13028	89.45	89.75	89.60
Co 13029	89.95	89.55	89.75
Co 13030	88.85	87.42	88.14
Co 13031	90.52	89.71	90.12
Co 13032	89.21	90.52	89.87
CoA 14 323	90.62	90.45	90.54
CoA 14 324	88.85	88.37	88.61
CoC 14 337	89.92	89.75	89.84
PI 14 376	90.52	89.71	90.12
PI 14 377	89.65	89.85	89.75
Standards			
CoV 92102	90.21	89.95	90.08
Co 86249	88.65	87.35	88.00
SEd.			0.35
CD (0.05%)			1.07
CV (%)			0.55

Table 5. 7. Pol. % (cane) at harvest

Clone	R I	R II	Mean
Co 13025	13.25	13.42	13.34
Co 13027	13.15	13.35	13.25
Co 13028	13.25	13.34	13.30
Co 13029	13.64	13.35	13.50
Co 13030	13.5	12.95	13.23
Co 13031	13.18	13.75	13.47
Co 13032	13.85	13.46	13.66
CoA 14 323	13.75	14.15	13.95
CoA 14 324	13.42	13.25	13.34
CoC 14 337	13.71	13.65	13.68
PI 14 376	13.92	13.76	13.84
PI 14 377	13.54	13.75	13.65
Standards			
CoV 92102	13.85	13.67	13.76
Co 86249	13.32	13.21	13.27
SEm±			0.15
CD (0.05%)			0.47
CV (%)			1.62

Table 5. 8. Extraction % at harvest

Clone	R I	R II	Mean
Co 13025	49.84	48.35	49.10
Co 13027	48.71	48.28	48.50
Co 13028	49.15	48.65	48.90
Co 13029	49.76	49.47	49.62
Co 13030	48.15	48.35	48.25
Co 13031	51.26	50.15	50.71
Co 13032	49.71	49.28	49.50
CoA 14 323	50.55	50.72	50.64
CoA 14 324	49.35	48.47	48.91
CoC 14 337	50.17	49.76	49.97
PI 14 376	50.24	49.85	50.05
PI 14 377	49.85	50.17	50.01
Standards			
CoV 92102	50.15	50.05	50.10
Co 86249	48.25	48.42	48.34
SEd			0.26
CD (0.05%)			0.80
CV (%)			0.75

Table 5. 9. Fibre % at harvest

Clone	R I	R II	Mean
Co 13025	13.65	13.55	13.60
Co 13027	13.62	13.45	13.54
Co 13028	13.72	13.77	13.75
Co 13029	13.41	13.37	13.39
Co 13030	13.53	13.67	13.60
Co 13031	13.45	13.24	13.35
Co 13032	13.51	13.42	13.47
CoA 14 323	13.21	12.87	13.04
CoA 14 324	13.52	13.27	13.40
CoC 14 337	13.33	13.43	13.38
PI 14 376	13.24	13.12	13.18
PI 14 377	13.45	13.28	13.37
Standards			
CoV 92102	13.25	13.35	13.30
Co 86249	13.65	13.47	13.56
SEd			0.07
CD (0.05%)			0.22
CV (%)			0.77

Table 5. 10. NMC ('000/ha) at harvest

Clone	R I	R II	Mean
Co 13025	115.51	102.15	108.83
Co 13027	103.35	98.85	101.10
Co 13028	112.36	106.75	109.56
Co 13029	107.64	112.65	110.15
Co 13030	111.85	108.72	110.29
Co 13031	109.75	98.75	104.25
Co 13032	105.55	100.64	103.10
CoA 14 323	112.84	100.24	106.54
CoA 14 324	105.75	114.16	109.96
CoC 14 337	125.37	115.42	120.40
PI 14 376	108.38	94.65	101.52
PI 14 377	110.64	95.65	103.15
Standards			
CoV 92102	99.75	92.25	96.00
Co 86249	110.45	114.35	112.40
SEm±			3.72
CD (0.05%)			11.37
CV (%)			4.92

Table 5. 11. Stalk length (cm) at harvest

Clone	R I	R II	Mean
Co 13025	277.00	265.00	271.00
Co 13027	262.00	275.00	268.50
Co 13028	269.50	276.85	273.18
Co 13029	267.00	275.00	271.00
Co 13030	278.50	281.50	280.00
Co 13031	273.50	280.35	276.93
Co 13032	255.35	262.00	258.68
CoA 14 323	280.25	271.50	275.88
CoA 14 324	281.33	276.00	278.67
CoC 14 337	277.00	283.00	280.00
PI 14 376	246.85	270.00	258.43
PI 14 377	263.00	273.00	268.00
Standard			
CoV 92102	271.00	265.00	268.00
Co 86249	245.50	256.00	250.75
S.Ed.			4.76
CD (0.05%)			14.53
CV (%)			2.49

Table 5. 12. Stalk diameter (cm) at harvest

Clone	R I	R II	Mean
Co 13025	2.55	2.65	2.60
Co 13027	2.63	2.85	2.74
Co 13028	2.72	2.81	2.77
Co 13029	2.85	2.77	2.81
Co 13030	3.05	2.94	3.00
Co 13031	2.62	2.72	2.67
Co 13032	2.65	2.54	2.60
CoA 14 323	2.85	2.75	2.80
CoA 14 324	2.37	2.52	2.45
CoC 14 337	2.95	3.07	3.01
PI 14 376	2.65	2.75	2.70
PI 14 377	2.77	2.85	2.81
Standard			
CoV 92102	2.65	2.58	2.62
Co 86249	2.45	2.50	2.48
S.Ed.			0.05
CD (0.05%)			0.17
CV (%)			2.86

Table 5. 13. Single cane weight (kg) at harvest

Clone	R I	R II	Mean
Co 13025	1.14	1.25	1.20
Co 13027	1.33	1.22	1.28
Co 13028	1.21	1.32	1.27
Co 13029	1.24	1.15	1.20
Co 13030	1.31	1.15	1.23
Co 13031	1.31	1.21	1.26
Co 13032	1.35	1.22	1.29
CoA 14 323	1.32	1.24	1.28
CoA 14 324	1.17	1.04	1.11
CoC 14 337	1.45	1.35	1.40
PI 14 376	1.25	1.35	1.30
PI 14 377	1.24	1.16	1.20
Standard			
CoV 92102	1.32	1.17	1.25
Co 86249	0.97	1.05	1.01
S.Ed.			0.05
CD (0.05%)			0.16
CV (%)			5.90

Table 5. 14. Brix % at 8th month

Clone	R I	R II	Mean
Co 13025	19.15	18.64	18.90
Co 13027	18.65	18.55	18.60
Co 13028	19.05	19.1	19.08
Co 13029	19.25	19.15	19.20
Co 13030	18.55	18.75	18.65
Co 13031	19.85	18.95	19.40
Co 13032	19.15	19.45	19.30
CoA 14 323	19.67	19.52	19.60
CoA 14 324	18.92	18.87	18.90
CoC 14 337	19.15	19.35	19.25
PI 14 376	19.35	19.20	19.28
PI 14 377	19.15	19.25	19.20
Standard			
CoV 92102	19.65	19.47	19.56
Co 86249	18.65	18.75	18.70
S.Ed.			0.16
CD (0.05%)			0.48
CV (%)			1.16

Table 5. 15. Sucrose % 8th month

Clone	R I	R II	Mean
Co 13025	15.25	14.94	15.10
Co 13027	14.86	14.94	14.90
Co 13028	15.45	15.51	15.48
Co 13029	15.85	15.35	15.60
Co 13030	14.85	15.05	14.95
Co 13031	15.52	15.35	15.44
Co 13032	15.65	15.47	15.56
CoA 14 323	15.81	15.54	15.68
CoA 14 324	14.76	15.35	15.06
CoC 14 337	15.55	15.61	15.58
PI 14 376	15.67	15.85	15.76
PI 14 377	15.46	15.65	15.56
Standard			
CoV 92102	15.73	15.46	15.60
Co 86249	14.85	15.05	14.95
S.Ed.			0.14
CD (0.05%)			0.44
CV (%)			1.31

Table 5. 16. Purity % 8th month

Clone	R I	R II	Mean
Co 13025	84.10	84.35	84.23
Co 13027	84.20	84.00	84.10
Co 13028	84.70	85.25	84.98
Co 13029	85.20	85.05	85.13
Co 13030	84.10	82.92	83.51
Co 13031	85.77	85.21	85.49
Co 13032	84.46	86.02	85.24
CoA 14 323	85.87	85.95	85.91
CoA 14 324	84.10	83.87	83.99
CoC 14 337	85.17	85.25	85.21
PI 14 376	85.72	85.21	85.47
PI 14 377	84.90	85.35	85.13
Standard			
CoV 92102	85.52	85.43	85.48
Co 86249	83.90	82.85	83.38
S.Ed.			0.34
CD (0.05%)			1.05
CV (%)			0.57

Table 5. 17. CCS % 8th month

Clone	R II	R III	Mean
Co 13025	10.67	10.56	10.62
Co 13027	10.27	10.35	10.31
Co 13028	10.75	10.57	10.66
Co 13029	10.68	10.56	10.62
Co 13030	10.35	10.27	10.31
Co 13031	10.35	10.61	10.48
Co 13032	10.75	10.81	10.78
CoA 14 323	11.15	11.05	11.10
CoA 14 324	10.48	10.52	10.50
CoC 14 337	10.70	10.81	10.76
PI 14 376	10.84	10.95	10.90
PI 14 377	10.75	10.56	10.66
Standard			
CoV 92102	10.75	10.85	10.80
Co 86249	10.54	10.45	10.50
S.Ed.			0.07
CD (0.05%)			0.2
CV (%)			0.89

Table 5. 18. No of Shoots ('000/ha) – 180 days

Clone	R I	R II	Mean
Co 13025	107.87	110.86	109.37
Co 13027	107.72	102.35	105.04
Co 13028	108.65	121.26	114.96
Co 13029	111.45	117.15	114.30
Co 13030	118.62	112.15	115.39
Co 13031	115.74	109.35	112.55
Co 13032	105.87	112.86	109.37
CoA 14 323	120.17	112.65	116.41
CoA 14 324	109.65	121.74	115.70
CoC 14 337	127.52	135.25	131.39
PI 14 376	101.25	105.35	103.30
PI 14 377	117.25	108.45	112.85
Standard			
CoV 92102	108.75	113.52	111.14
Co 86249	113.26	120.54	116.90
SE.d			3.75
CD (0.05%)			11.72
CV (%)			4.67

Table 5. 19. No of tillers ('000/ha) – 120 days

Clone	R I	R II	Mean
Co 13025	127.77	113.51	120.64
Co 13027	123.46	112.72	118.09
Co 13028	122.53	115.55	119.04
Co 13029	115.69	121.91	118.80
Co 13030	123.14	117.59	120.37
Co 13031	121.95	114.52	118.24
Co 13032	125.61	115.36	120.49
CoA 14 323	126.35	118.37	122.36
CoA 14 324	120.98	125.3	123.14
CoC 14 337	146.6	141.28	143.94
PI 14 376	119.28	112.22	115.75
PI 14 377	125.21	115.39	120.30
Standards			
CoV 92102	114.65	121.55	118.10
Co 86249	118.27	127.74	123.01
SEd.			3.79
CD (0.05)			11.58
CV (%)			4.41

Table 5. 20. Germination % – 30 days

Clone	R I	R II	Mean
Co 13025	67.12	54.62	60.87
Co 13027	61.8	41.94	51.87
Co 13028	62.5	55.84	59.17
Co 13029	55.53	65.13	60.33
Co 13030	64.12	68.13	66.13
Co 13031	62.03	60.18	61.11
Co 13032	67.82	50.69	59.26
CoA 14 323	57.87	56.01	56.94
CoA 14 324	55.02	70.45	62.74
CoC 14 337	72.56	63.12	67.84
PI 14 376	58.56	55.78	57.17
PI 14 377	62.51	58.12	60.32
Standards			
CoV 92102	57.78	62.03	59.91
Co 86249	67.12	65.19	66.16
S.Ed.			4.87
CD (0.05)			14.87
CV (%)			11.35

6. Advanced Varietal Trial (Mid-late) – I Plant (Centre – Cuddalore)

Entries (8)	:	, CoA 11326, CoA 12324, CoC 13339 and CoOr 13346
Standards (3)	:	CoV 92102 and Co 86249
Design	:	RBD
Replications	:	Four
Plot size	:	Gross: 6.0 m x 8 r x 0.9 m Net : 5.0 m x 6 r x 0.9 m
Seed rate	:	12 buds/m
Date of Planting	:	01.03.2016
Crop duration	:	12 months

6. Advanced Varietal Trial (Mid-late) – I Plant

A total of four test clones and two standards were evaluated in RBD with four replications. The clone CoC 13339 recorded higher CCS yield (18.64 t/ha) followed by clone CoA 11 326 (15.79 t/ha) and standard CoV 92102 (15.43 t/ha). The Cane yield was maximum in the clone CoC 13339 (141.15 t/ha) followed by the clone CoA 11326 (125.31 t/ha) and CoA 12324 (123.16 t/ha). The sucrose content was maximum in the clone CoC 13339 (18.15%) followed by the standard CoV 92102 (17.71%) and CoOr 13346 (17.66 %) (Table 6.1 - 6.20).

6. Advanced Varietal Trial (Mid-late) – I plant

S. No.	Clone	CCS (t/ha)	Cane yield (t/ha)	Sucrose (%) (12 m)	Brix (%) (12 m)	Purity (%) (12 m)	CCS (%) (12 m)	Pol. (%) cane (12 m)	Extract-ion (%) (12 m)	Fibre (%) (12 m)	NMC ('000/ha) (12 m)
1	CoA 11 326	15.79	125.31	17.60	20.27	88.83	12.61	13.74	50.34	13.50	103.11
2	CoA 12 324	15.34	123.16	17.46	20.24	89.35	12.46	13.61	50.66	13.66	105.98
3	CoC 13 339	18.64	141.15	18.15	21.24	90.42	13.20	14.03	51.57	13.27	113.06
4	CoOr 13 357	15.14	119.43	17.66	20.62	90.62	12.67	13.63	50.45	13.77	101.72
Standard											
1.	CoV 92102	15.43	120.85	17.71	20.60	89.78	12.76	13.87	50.88	13.40	106.72
2.	Co 86249	12.45	106.20	16.60	19.37	88.71	11.73	12.76	49.71	13.81	116.78
	S.Ed.	0.62	4.95	0.15	0.50	0.48	0.11	0.20	0.16	0.18	6.25
	CD (0.05)	1.33	10.55	0.31	NS	1.02	0.24	0.43	0.34	0.37	13.34
	CV (%)	5.69	5.70	1.17	2.31	0.76	1.28	2.11	0.45	1.83	8.21

S. No.	Clone	Stalk length (cm)	Stalk Diameter (cm)	Single Cane wt. (kg)	Brix (%) (10 m)	Sucrose (%) (10 m)	Purity (%) (10 m)	CCS (%) (10 m)	No. of shoots ('000/ha)	No. of tillers ('000/ha)	Germination (%)
1	CoA 11 326	280.13	2.90	1.32	18.63	15.28	84.80	10.23	112.91	118.19	55.68
2	CoA 12 324	275.00	2.86	1.28	18.48	15.24	85.02	10.15	113.75	119.36	54.58
3	CoC 13 339	286.38	3.03	1.31	19.46	15.54	85.19	10.55	120.13	134.74	66.19
4	CoOr 13 357	273.50	2.36	1.24	19.13	15.34	85.47	10.25	112.94	116.46	49.54
Standard											
1	CoV 92102	274.25	2.52	1.17	19.14	15.33	84.15	10.43	117.34	124.10	54.36
2	Co 86249	266.25	2.42	1.05	18.06	14.93	83.45	9.87	125.97	138.18	55.52
	S.Ed.	5.25	0.08	0.06	0.44	0.21	0.60	0.28	4.11	6.72	3.39
	CD (0.05)	11.18	0.16	0.12	NS	0.45	1.27	0.59	8.77	14.33	7.23
	CV (%)	2.69	3.85	6.38	3.31	1.94	1.00	3.84	4.96	7.65	8.57

Table 6. 1. CCS Yield (t/ha) at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	15.75	16.27	16.15	15.00	15.79
CoA 12 324	16.10	15.66	15.26	14.35	15.34
CoC 13 339	17.99	19.20	18.50	18.86	18.64
CoOr 13 346	14.95	15.18	14.37	16.04	15.14
Standard					
CoV 92102	14.27	15.09	16.02	16.34	15.43
Co 86249	13.00	11.02	13.84	11.95	12.45
S.Ed.					0.62
CD (0.05%)					1.33
CV (%)					5.69

Table 6. 2. Cane yield (t/ha) at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	123.85	130.12	128.67	118.60	125.31
CoC 12 324	129.62	124.20	122.54	116.27	123.16
CoC 13 339	136.74	145.64	139.92	142.31	141.15
CoOr 13 346	117.25	120.38	115.24	124.83	119.43
Standard					
CoV 92102	112.87	118.35	124.55	127.64	120.85
Co 86249	114.52	94.35	116.76	99.15	106.20
S.Ed.					4.95
CD (0.05%)					10.55
CV (%)					5.70

Table 6. 3. Sucrose % at harvest

clone	R I	R II	R III	R IV	Mean
CoA 11 326	17.54	17.47	17.65	17.72	17.60
CoC 12 324	17.34	17.42	17.46	17.63	17.46
CoC 13 339	18.06	18.17	18.21	18.14	18.15
CoOr 13 346	17.55	17.82	17.67	17.58	17.66
Standard					
CoV 92102	17.65	17.85	17.72	17.61	17.71
Co 86249	15.85	16.92	16.91	16.73	16.60
S.Ed.					0.15
CD (0.05%)					0.31
CV (%)					1.17

Table 6. 4. CCS % at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	12.72	12.50	12.55	12.65	12.61
CoC 12 324	12.42	12.61	12.45	12.34	12.46
CoC 13 339	13.16	13.18	13.22	13.25	13.20
CoOr 13 346	12.75	12.61	12.47	12.85	12.67
Standard					
CoV 92102	12.64	12.75	12.86	12.80	12.76
Co 86249	11.35	11.68	11.85	12.05	11.73
S.Ed.					0.11
CD (0.05%)					0.24
CV (%)					1.28

Table 6. 5. Brix % at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	20.25	20.17	20.28	20.36	20.27
CoC 12 324	20.47	20.22	20.32	19.95	20.24
CoC 13 339	21.15	21.35	21.20	21.25	21.24
CoOr 13 346	20.51	20.72	20.64	20.61	20.62
Standard					
CoV 92102	20.55	20.47	20.62	20.76	20.60
Co 86249	19.41	19.45	19.25	19.35	19.37
S.Ed.					0.50
CD (0.05%)					NS
CV (%)					2.31

Table 6. 6. Purity % at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	88.32	89.25	88.92	88.83	88.83
CoC 12 324	90.54	88.39	89.12	89.35	89.35
CoC 13 339	88.81	91.64	90.82	90.42	90.42
CoOr 13 346	90.85	91.67	89.34	90.62	90.62
Standard					
CoV 92102	89.21	89.83	90.31	89.78	89.78
Co 86249	88.52	87.65	89.97	88.71	88.71
S.Ed.					0.48
CD (0.05%)					1.02
CV (%)					0.76

Table 6. 7. Pol. % (cane) at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	13.68	13.35	14.17	13.75	13.74
CoC 12 324	13.43	13.76	13.38	13.85	13.61
CoC 13 339	14.32	13.93	14.03	13.85	14.03
CoOr 13 346	13.45	14.15	13.37	13.53	13.63
Standard					
CoV 92102	14.15	13.56	13.95	13.82	13.87
Co 86249	12.63	12.72	12.95	12.75	12.76
S.Ed.					0.20
CD (0.05%)					0.43
CV (%)					2.11

Table 6. 8. Extraction % at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	50.36	50.21	50.33	50.45	50.34
CoC 12 324	50.41	50.32	51.24	50.65	50.66
CoC 13 339	51.65	51.72	51.65	51.25	51.57
CoOr 13 346	50.65	50.35	50.27	50.52	50.45
Standard					
CoV 92102	50.85	50.75	51.15	50.75	50.88
Co 86249	49.91	49.72	49.65	49.55	49.71
S.Ed.					0.16
CD (0.05%)					0.34
CV (%)					0.45

Table 6. 9. Fibre % at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	13.65	13.35	13.72	13.29	13.50
CoC 12 324	13.75	13.45	13.85	13.57	13.66
CoC 13 339	12.55	13.43	13.76	13.35	13.27
CoOr 13 346	13.72	13.97	13.75	13.65	13.77
Standard					
CoV 92102	13.45	13.55	13.46	13.15	13.40
Co 86249	13.84	13.95	13.83	13.62	13.81
S.Ed.					0.18
CD (0.05%)					0.37
CV (%)					1.83

Table 6. 10. NMC ('000/ha) at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	105.65	115.15	98.75	92.87	103.11
CoC 12 324	102.52	116.41	110.25	94.75	105.98
CoC 13 339	110.85	102.65	123.48	115.26	113.06
CoOr 13 346	105.62	94.85	110.65	95.76	101.72
Standard					
CoV 92102	112.85	113.25	94.92	105.85	106.72
Co 86249	107.15	115.87	125.75	118.35	116.78
S.Ed.					6.25
CD (0.05%)					13.34
CV (%)					8.21

Table 6. 11. Stalk length (cm) at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	285	275	288.00	272.50	280.13
CoC 12 324	275	276	268.00	281.00	275.00
CoC 13 339	279	295	284.00	287.50	286.38
CoOr 13 346	273	260	277.00	284.00	273.50
Standard					
CoV 92102	275	279	271.50	271.50	274.25
Co 86249	265.5	270	257.00	272.50	266.25
S.Ed.					5.25
CD (0.05%)					11.18
CV (%)					2.69

Table 6. 12. Stalk diameter (cm) at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	2.92	2.85	2.88	2.95	2.90
CoC 12 324	2.75	2.85	2.90	2.95	2.86
CoC 13 339	3.15	3.10	2.85	3.00	3.03
CoOr 13 346	2.35	2.30	2.52	2.25	2.36
Standard					
CoV 92102	2.45	2.52	2.63	2.47	2.52
Co 86249	2.35	2.45	2.55	2.31	2.42
S.Ed.					0.08
CD (0.05%)					0.16
CV (%)					3.85

Table 6. 13. Single cane weight (kg) at harvest

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	1.25	1.45	1.22	1.36	1.32
CoC 12 324	1.28	1.22	1.35	1.27	1.28
CoC 13 339	1.35	1.25	1.25	1.37	1.31
CoOr 13 346	1.31	1.17	1.23	1.24	1.24
Standard					
CoV 92102	1.21	1.05	1.15	1.25	1.17
Co 86249	1.05	1.15	0.95	1.05	1.05
S.Ed.					0.06
CD (0.05%)					0.12
CV (%)					6.38

Table 6. 14. Brix % at 8th month

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	18.55	18.71	18.63	18.62	18.63
CoC 12 324	18.35	18.52	18.61	18.42	18.48
CoC 13 339	19.67	19.52	19.60	19.07	19.46
CoOr 13 346	19.05	19.35	19.20	18.90	19.13
Standard					
CoV 92102	19.15	19.32	19.24	18.87	19.14
Co 86249	17.51	18.45	17.92	18.35	18.06
S.Ed.					0.44
CD (0.05%)				NS	0.93
CV (%)					3.31

Table 6. 15. Sucrose % 8th month

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	15.33	15.32	15.25	15.22	15.28
CoC 12 324	15.21	15.32	15.25	15.18	15.24
CoC 13 339	15.51	15.65	15.55	15.45	15.54
CoOr 13 346	15.25	15.35	15.45	15.32	15.34
Standard					
CoV 92102	15.42	15.35	15.25	15.30	15.33
Co 86249	15.61	14.65	14.72	14.75	14.93
S.Ed.					0.21
CD (0.05%)					0.45
CV (%)				NS	1.94

Table 6. 16. Purity % 8th month

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	84.62	85.25	84.33	85.01	84.80
CoC 12 324	84.95	85.52	84.56	85.07	85.02
CoC 13 339	85.35	85.62	84.45	85.34	85.19
CoOr 13 346	85.95	85.52	85.15	85.26	85.47
Standard					
CoV 92102	84.15	83.65	84.24	84.56	84.15
Co 86249	83.43	83.75	83.35	83.25	83.45
S.Ed.					0.60
CD (0.05%)				NS	1.27
CV (%)					1.00

Table 6. 17. CCS % 8th month

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	10.35	10.17	10.14	10.25	10.23
CoC 12 324	10.25	10.15	9.63	10.55	10.15
CoC 13 339	9.85	10.78	10.89	10.69	10.55
CoOr 13 346	10.35	10.25	10.42	9.96	10.25
Standard					
CoV 92102	10.45	10.35	10.42	10.51	10.43
Co 86249	9.91	9.75	9.85	9.95	9.87
S.Ed.					0.28
CD (0.05%)					0.59
CV (%)					3.84

Table 6. 18. No of Shoots ('000/ha) – 180 days

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	112.85	117.35	107.15	114.270	112.91
CoC 12 324	115.00	112.64	110.00	117.35	113.75
CoC 13 339	118.72	125.68	120.68	115.450	120.13
CoOr 13 346	117.55	101.52	115.42	117.250	112.94
Standard					
CoV 92102	122.52	115.15	116.34	115.35	117.34
Co 86249	117.35	132.52	120.68	133.350	125.97
S.Ed.					4.11
CD (0.05%)					8.77
CV (%)					4.96

Table 6. 19. No of tillers ('000/ha) – 120 days

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	121.02	136.42	114.03	101.27	118.19
CoC 12 324	116.32	127.64	123.12	110.37	119.36
CoC 13 339	135.76	125.71	140.26	137.21	134.74
CoOr 13 346	121.82	110.42	125.23	108.37	116.46
Standard					
CoV 92102	130.6	128.31	106.28	131.21	124.10
Co 86249	127.36	138.62	147.50	139.23	138.18
S.Ed.					6.72
CD (0.05%)					14.33
CV (%)					7.65

Table 6. 20. Germination % – 30 days

Clone	R I	R II	R III	R IV	Mean
CoA 11 326	50.34	57.98	61.63	52.77	55.68
CoC 12 324	49.97	60.25	50.62	57.46	54.58
CoC 13 339	59.02	73.9	63.20	68.64	66.19
CoOr 13 346	51.35	43.53	49.82	53.47	49.54
Standard					
CoV 92102	53.04	48.65	57.20	58.54	54.36
Co 86249	54.18	57.22	58.24	52.42	55.52
S.Ed.					3.39
CD (0.05%)					7.23
CV (%)					8.57

7. Fluff Supply Programme – 2016

1.	Total no. of Crosses received	: 62
		a) Station crosses: 35
		b) Poly crosses: 07
		c) General Collections: 20
2.	Total weight of Fluff received:	1205.5 g
3.	Date of sowing	17.03.2017 to 22.03.2017
4.	No. of crosses and GC germinated	42
5.	Total no. of seedlings germinated	4,732

Table 7. 1. Number of Seedlings Germinated

Type of cross	No. of Cross Sown	Total no. of Seedlings obtained
Station Crosses	35	4172
Poly Crosses	07	386
General Collections	20	174
Total	62	4,732