

CROP IMPROVEMENT (2015-16)

- 1) **Title** : **Initial Varietal Trial (Early)**
Objective : To evaluate sugarcane varieties for yield and quality.
Year of start : 2015-2016
Name of Scientists : Dr.M.S.Kamble, Breeder
 Prof.D.M.Veer, Plant Pathologist
 Miss.K.B.Patil, Tech.Asstt.
 Shri.N.B.Ghodake, Tech.Asstt.

Entries (12) :

Sr.No	Clone	Sr.No	Clone
1	Co 12001	7	CoM 12082
2	Co 12003	8	CoM 12083
3	Co 12006	9	CoN 12071
4	Co 12007	10	CoN 12072
5	Co 12008	11	CoT 12366
6	CoM 12081	12	CoT 12367

- Standards (3)** : 1) CoC 671 2) Co 94008 3) Co 85004
Design : RBD
Replications : Two
Plot Size : Gross: 6m x 6r x 1.2m Net: 5m x 4r x 1.2m
Seed rate : 12 buds per meter.
Block No. : 09
Date of planting : 25/12/2014
Date of Harvesting : 01/03/2016

Result and Discussion

Considering the CCS yield of different genotypes under investigation, none of the genotypes were significantly superior over the highest yielding check CoC 671 (15.74 t ha⁻¹), while the genotypes CoT 12366 (18.35 t ha⁻¹), CoM 12082 (17.28 t ha⁻¹), CoM 12081 (16.78 t ha⁻¹) and Co 12007 (15.72 t ha⁻¹) were on par with the check CoC 671.

None of the genotypes were significantly superior over best cane yielding check CoC 671(100.93 t ha⁻¹), while the genotypes CoT 12366 (117.07 t ha⁻¹), CoM 12082 (112.13 t ha⁻¹), CoT 12367 (105.50 t ha⁻¹), CoM 12081 (103.96 t ha⁻¹), Co 12007 (101.66 t ha⁻¹) and CoN 12072 (100.86 t ha⁻¹) were on par with the highest cane yielding check CoC 671.

The genotypes CoM 12081 (16.16 %), CoN 12071 (15.92 %), Co 12008 (15.88 %), Co 12001 (15.82 %) and CoT 12366 (15.70 %) were on par with the best CCS % recording check Co 85004 (15.60 %) at 12 months but none of the genotypes recorded highest sucrose % over the best check Co 85004 (22.38 %) at 12 months.

Table 1. IVT Early

S. No.	Clone	CCS (t/ha)	Cane yield (t/ha)	CCS % (12m)	Sucrose % (12m)	Brix % (12 m)	Purity % (12m)	NMC at 12m ('000/ha)
1	Co 12001	12.72	80.29	15.82	21.83	22.21	98.25	91.09
2	Co 12003	14.77	101.31	14.54	20.01	20.21	98.97	94.91
3	Co 12006	10.62	73.69	14.42	20.17	21.21	95.07	108.56
4	Co 12007	15.72	101.66	15.45	21.47	22.21	96.64	103.59
5	Co 12008	12.77	81.03	15.88	22.07	22.86	96.52	89.81
6	CoM 12081	16.78	103.96	16.16	22.31	22.71	98.21	99.54
7	CoM 12082	17.28	112.13	15.38	21.40	22.21	96.33	91.78
8	CoM 12083	14.40	92.98	15.51	21.52	22.21	96.92	87.27
9	CoN 12071	11.32	71.11	15.92	22.07	22.71	97.16	79.05
10	CoN 12072	15.57	100.86	15.48	21.35	21.71	98.31	102.66
11	CoT 12366	18.35	117.07	15.70	21.56	21.71	99.31	84.26
12	CoT 12367	15.75	105.50	14.96	20.84	21.71	96.02	80.21
Stds								
1	CoC 671	15.74	100.93	15.60	21.54	21.96	98.10	96.76
2	Co 94008	12.83	90.78	14.13	20.18	22.21	90.90	95.83
3	Co 85004	12.43	77.09	16.09	22.38	23.22	96.37	102.20
	SE±	1.33	9.09	0.34	0.39	0.34	1.32	8.42
	CD @ 5%	4.03	27.51	1.03	1.18	1.03	NS	NS
	CV %	13.02	13.67	3.12	2.58	2.17	1.92	12.70

Table 2. IVT Early

S. No.	Clone	Stalk Length (cm)	Stalk Diameter (cm)	Single cane weight (kg)	CCS % (10 m)	Sucrose % (10 m)	Brix % (10 m)	Purity % (10 m)	No. of tillers ('000/ha) 120 days	Germination % (30 days)
1	Co 12001	232.33	2.56	1.01	13.67	18.98	19.61	96.79	112.85	51.67
2	Co 12003	213.33	2.82	1.22	12.89	17.86	18.35	97.26	117.82	52.22
3	Co 12006	203.00	2.32	0.71	13.26	18.23	18.36	99.27	142.82	45.42
4	Co 12007	296.16	2.80	1.24	15.11	20.89	21.36	97.79	135.65	66.94
5	Co 12008	234.67	2.51	1.05	15.34	21.50	22.71	94.64	116.90	44.44
6	CoM 12081	280.50	2.78	1.32	13.23	18.19	18.35	99.14	131.83	58.47
7	CoM 12082	320.17	2.96	1.70	13.61	18.78	19.11	98.27	105.79	60.83
8	CoM 12083	273.83	3.12	1.37	14.38	19.89	20.36	97.70	99.07	52.64
9	CoN 12071	211.67	2.32	1.04	14.21	19.94	21.11	94.58	95.14	57.64
10	CoN 12072	256.67	2.50	1.13	13.26	18.23	18.36	99.27	135.53	58.06
11	CoT 12366	300.00	3.44	1.89	14.28	19.86	20.61	96.47	101.50	47.78
12	CoT 12367	257.66	3.34	1.80	13.64	18.88	19.36	97.54	94.91	58.89
Stds										
1	CoC 671	214.83	2.80	1.28	13.58	18.68	18.86	99.02	116.78	52.50
2	Co 94008	249.00	2.88	1.13	13.58	18.68	18.86	99.02	119.91	56.11
3	Co 85004	226.83	2.30	0.80	14.47	19.91	20.11	98.97	122.69	52.78
	SE±	10.48	0.03	0.07	0.33	0.45	0.54	1.20	10.31	4.97
	CD @ 5%	31.71	0.09	0.22	1.00	1.37	1.65	NS	NS	NS
	CV %	5.89	1.60	8.31	3.38	3.34	3.91	1.73	12.50	12.91

2]	Title	: Advanced Varietal Trial- Early (I Plant)																				
	Objective	: To evaluate sugarcane varieties for yield and quality.																				
	Year of start	: 2015-2016																				
	Name of Scientists	: Dr.M.S.Kamble, Breeder Prof.D.M.Veer, Plant Pathologist Miss.K.B.Patil, Tech.Astt. Shri.N.B.Ghodake, Tech.Asstt																				
	Entries (8)	:																				
		<table border="0" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: center;">Sr.No</th> <th style="text-align: center;">Clones</th> <th style="text-align: center;">Sr.No</th> <th style="text-align: center;">Clones</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Co 10004</td> <td style="text-align: center;">5</td> <td>Co 10026</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Co 10005</td> <td style="text-align: center;">6</td> <td>Co 10027</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Co 10006</td> <td style="text-align: center;">7</td> <td>CoT 10366</td> </tr> <tr> <td style="text-align: center;">4</td> <td>Co 10024</td> <td style="text-align: center;">8</td> <td>CoT 10367</td> </tr> </tbody> </table>	Sr.No	Clones	Sr.No	Clones	1	Co 10004	5	Co 10026	2	Co 10005	6	Co 10027	3	Co 10006	7	CoT 10366	4	Co 10024	8	CoT 10367
Sr.No	Clones	Sr.No	Clones																			
1	Co 10004	5	Co 10026																			
2	Co 10005	6	Co 10027																			
3	Co 10006	7	CoT 10366																			
4	Co 10024	8	CoT 10367																			
	Standards (3)	: 1) CoC 671, 2) Co 94008, 3) Co 85004																				
	Design	: RBD																				
	Replications	: Three																				
	Plot Size	: Gross - 6 m x 8r x 1.2 m Net - 5 m x 6r x 1.2 m																				
	Seed rate	: 12 buds per meter.																				
	Block No.	: 11																				
	Date of Planting	: 20/12/2014																				
	Date of Harvesting	: 16/02/2016																				

Result and Discussion

The genotype Co 10027 was on par for CCS yield (18.10 t ha⁻¹) and cane yield (124.83 t ha⁻¹) when compared with highest CCS and cane yielding check CoC 671 (17.63 t ha⁻¹ & 118.50 t ha⁻¹). The genotype Co 10005 (15.82 %) was on par for CCS per cent compared to the highest CCS per cent recording check 85004 (15.32 %). The genotypes Co 10005 (21.82 %) and Co 10006 (20.75 %) were on par for sucrose per cent when compared with highest sucrose per cent recording check CoC 671 (21.12 %). The genotypes Co 10004 (307.88 cm) and Co 10024 (278.44 cm) were significantly superior for stalk length over superior check CoC 671 (256.11 cm) while the genotypes Co 10026 (268.77 cm), Co 10005 (266.66 cm), CoT 10366 (264.00 cm) and Co 10027 (256.22 cm) were found on par.

Table 1. AVT Early (I plant)

S. No.	Clone	CCS (t/ha)	Cane yield (t/ha)	CCS % (12m)	Sucrose % (12m)	Brix % (12 m)	Purity % (12m)	NMC at 12m ('000/ha)
1	Co 10004	16.36	118.34	13.83	19.04	19.29	98.74	95.95
2	Co 10005	15.99	101.06	15.82	21.84	22.29	98.01	105.79
3	Co 10006	10.74	71.41	15.04	20.75	21.12	98.25	77.95
4	Co 10024	17.08	115.38	14.83	20.45	20.79	98.36	89.29
5	Co 10026	13.65	92.42	14.75	20.37	20.79	98.04	92.19
6	Co 10027	18.10	124.83	14.50	20.13	20.79	96.87	111.00
7	CoT 10366	9.54	70.91	13.44	18.52	18.79	98.59	77.49
8	CoT 10367	16.27	105.36	15.41	21.26	21.62	98.34	77.78
Stds								
1	CoC 671	17.63	118.50	14.87	20.68	21.45	96.42	86.92
2	Co 94008	14.29	101.49	14.14	19.49	19.79	98.49	105.90
3	Co 85004	10.84	70.82	15.32	21.12	21.45	98.45	109.78
	SE±	0.93	6.06	0.28	0.39	0.41	0.53	4.59
	CD @ 5%	2.81	18.35	0.86	1.17	1.24	NS	13.90
	CV %	11.02	10.59	3.33	3.31	3.43	0.93	8.50

Table 2. AVT Early (I plant)

S. No.	Clone	Stalk Length (cm)	Stalk Diameter (cm)	Single cane weight (kg)	CCS % (10 m)	Sucrose % (10 m)	Brix % (10 m)	Purity % (10 m)	No. of tillers ('000/ha) 120 days	Germination % (30 days)
1	Co 10004	307.88	2.73	1.63	13.34	18.50	19.07	96.97	141.96	47.80
2	Co 10005	266.66	2.48	1.20	15.02	20.67	20.90	98.89	149.48	36.92
3	Co 10006	246.66	2.61	1.22	13.77	19.02	19.40	98.01	106.71	29.17
4	Co 10024	278.44	3.08	1.59	13.26	18.51	19.40	95.43	133.39	39.81
5	Co 10026	268.77	2.63	1.28	14.17	19.55	19.90	98.22	135.42	51.56
6	Co 10027	256.22	3.00	1.46	14.04	19.33	19.57	98.73	149.19	48.61
7	CoT 10366	264.00	2.70	1.22	13.02	18.05	18.57	97.14	117.42	50.06
8	CoT 10367	253.00	2.95	1.65	14.36	20.03	20.90	95.85	116.67	54.75
Stds										
1	CoC 671	256.11	3.08	1.71	14.40	19.97	20.57	97.05	119.62	52.43
2	Co 94008	255.55	2.54	1.21	13.96	19.25	19.57	98.34	166.90	46.30
3	Co 85004	221.22	2.37	0.87	14.19	19.61	20.07	97.77	151.39	46.41
	SE±	5.13	0.11	0.12	0.43	0.51	0.35	1.40	5.24	2.64
	CD @ 5%	15.53	0.33	0.37	NS	NS	1.06	NS	15.85	8.00
	CV %	3.40	6.96	15.28	5.35	4.53	3.05	2.49	6.71	9.99

- 3] **Title** : **Advanced Varietal Trial- Early (II Plant)**
Objective : To evaluate sugarcane varieties for yield and quality
Year of start : 2014-15
Name of Scientists : Dr.M.S.Kamble, Breeder
 Prof.D.M.Veer, Plant Pathologist
 Miss.K.B.Patil, Tech.Astt.
 Shri.N.B.Ghodake, Tech.Asstt

Entries (3) :

Sr.No	Clone
1	Co 09004
2	Co 09007
3	CoN 09072

- Standards (3)** : 1) CoC 671, 2) Co 94008, 3) Co 85004
Design : RBD
Replications : Four
Plot Size : Gross: 6m x 8r x 1.2m Net: 5m x 6r x 1.2m
Seed rate : 12 buds per meter.
Block No. : 29
Date of planting : 27/12/2014
Date of Harvesting : 24/01/2016

Result and Discussion

The genotype Co 09004 (19.37 t ha^{-1} & 127.71 t ha^{-1}) was found on par with the superior check CoC 671 for CCS and cane yield (17.52 t ha^{-1} & 116.66 t ha^{-1} , respectively). The non significant results were obtained for CCS per cent, sucrose per cent and brix at 12 months. The significantly superior stalk length (277.58 cm) and single cane weight (1.88 kg) was recorded by the genotype Co 09004 over highest stalk length recording check Co 94008 (243.68 cm) and highest single cane weight recording check CoC 671 (1.55 kg), respectively.

Table 1. AVT Early II plant

S. No.	Clone	CCS (t/ha)	Cane yield (t/ha)	CCS % (12m)	Sucrose % (12m)	Brix % (12 m)	Purity % (12m)	NMC at 12m ('000/ha)
1	Co 09004	19.37	127.71	15.20	21.03	21.56	97.54	104.30
2	Co 09007	16.71	115.42	14.42	19.84	20.06	98.86	101.30
3	CoN 09072	11.72	85.40	13.75	19.47	21.06	92.45	84.16
Stds								
1	CoC 671	17.52	116.66	15.12	20.96	21.56	97.14	76.87
2	Co 94008	16.50	113.18	14.58	20.25	20.94	96.74	88.89
3	Co 85004	14.18	93.69	15.07	20.87	21.44	97.41	96.74
	SE±	1.14	7.00	0.46	0.58	0.52	1.18	5.86
	CD @ 5%	3.45	21.20	NS	NS	NS	3.56	17.72
	CV %	14.25	12.89	6.30	5.71	4.92	2.44	12.72

Table 2. AVT Early II plant

S. No.	Clone	Stalk Length (cm)	Stalk Diameter (cm)	Single cane weight (kg)	CCS % (10 m)	Sucrose % (10 m)	Brix % (10 m)	Purity % (10 m)	No. of tillers ('000/ha) 120 days	Germination % (30 days)
1	Co 09004	277.58	3.13	1.88	14.07	19.53	20.16	96.78	123.09	52.17
2	Co 09007	235.00	3.12	1.49	12.37	17.22	17.92	96.03	115.97	46.96
3	CoN 09072	195.00	2.58	1.00	12.29	17.17	18.00	95.40	97.57	41.23
Stds										
1	CoC 671	225.17	3.16	1.55	13.91	19.27	19.81	97.31	92.14	41.32
2	Co 94008	243.68	2.96	1.29	13.20	18.36	19.06	96.31	104.95	49.18
3	Co 85004	199.91	2.72	0.94	14.19	19.58	19.93	98.20	113.98	53.43
	SE±	7.26	0.08	0.08	0.43	0.55	0.49	0.96	8.22	3.78
	CD @ 5%	21.96	0.25	0.24	1.31	1.67	1.47	NS	NS	NS
	CV %	6.33	5.64	11.79	6.48	5.97	5.08	1.98	15.23	15.96

- 4] **Title** : **Advanced Varietal Trial- Early (Ratoon)**
Objective : To evaluate sugarcane varieties for yield and quality
Year of start : 2014-15
Name of Scientists : Dr.M.S.Kamble, Breeder
 Prof.D.M.Veer, Plant Pathologist
 Miss.K.B.Patil, Tech.Astt.
 Shri.N.B.Ghodake, Tech.Asstt
- Entries (3)** :
- | Sr.No | Clone |
|-------|-----------|
| 1 | Co 09004 |
| 2 | Co 09007 |
| 3 | CoN 09072 |
- Standards (3)** : 1) CoC 671, 2) Co 94008, 3) Co 85004
Design : RBD
Replications : Four
Plot Size : Gross: 6m x 8r x 1.2m Net: 5m x 6r x 1.2m
Seed rate : 12 buds per meter.
Block No. : 10
Date of Ratooning : 23/02/2015
Date of Harvesting : 08/02/2016

Result and Discussion

The genotypes Co 09004 (16.03 t ha⁻¹) and Co 09007 (15.59 t ha⁻¹) had given on par CCS yield compared with the superior check CoC 671 (14.88 t ha⁻¹). None of the genotypes were superior over the best check CoC 671 for CCS per cent (15.25 %) and sucrose per cent (21.10 %). The genotypes Co 09007 (257.67 cm) was significantly superior for stalk length while the genotype Co 09004 (246.00 cm) was on par for stalk length when compared with best check Co 94008 (237.67 cm).

Table 1. Advanced varietal trial (Early Ratoon)

S. No.	Clone	CCS (t/ha)	Cane yield (t/ha)	CCS %	Sucrose %	Brix %	Purity %	NMC at ('000/ha)
1	Co 09004	16.03	106.35	15.16	20.94	21.37	98.00	99.09
2	Co 09007	15.59	112.83	13.79	18.99	19.25	98.67	95.27
3	CoN 09072	12.08	81.52	14.85	20.60	21.25	96.97	77.04
Stds								
1	CoC 671	14.88	97.73	15.25	21.10	21.62	97.62	79.95
2	Co 94008	13.48	91.22	14.82	20.50	21.00	97.63	81.51
3	Co 85004	13.08	86.26	15.15	20.90	21.25	98.36	96.09
	SE±	0.89	6.70	0.28	0.37	0.37	0.46	5.04
	CD @ 5%	2.70	20.29	0.84	1.13	1.13	NS	15.24
	CV %	12.57	13.97	3.74	3.63	3.56	0.94	11.43

Table 2. Advanced varietal trial (Early Ratoon)

S. No.	Clone	Stalk Length (cm)	Stalk Diameter (cm)	Single cane weight (kg)	No. of tillers ('000/ha) 120 days
1	Co 09004	246.00	2.87	1.39	110.07
2	Co 09007	257.67	2.98	1.47	106.99
3	CoN 09072	196.83	2.18	0.68	85.24
Stds					
1	CoC 671	215.08	2.96	1.38	86.28
2	Co 94008	237.67	2.51	1.09	91.93
3	Co 85004	187.80	2.14	0.65	102.78
	SE±	5.47	0.06	0.07	5.48
	CD @ 5%	16.55	0.18	0.21	16.58
	CV %	4.89	4.67	12.60	11.27

- 5) **Title** : **Initial Varietal Trial (Midlate)**
Objective : To evaluate sugarcane varieties for yield and quality.
Year of start : 2015-2016
Name of Scientists : Dr.M.S.Kamble, Breeder
 Prof.D.M.Veer, Plant Pathologist
 Miss.K.B.Patil, Tech.Astt.
 Shri.N.B.Ghodake, Tech.Asstt.
- Entries (12)** :
- | Sr.No | Clone | Sr.No | Clone |
|-------|----------|-------|-----------|
| 1 | Co 12009 | 9 | CoM 12084 |
| 2 | Co 12012 | 10 | CoM 12085 |
| 3 | Co 12014 | 11 | CoM 12086 |
| 4 | Co 12016 | 12 | CoN 12073 |
| 5 | Co 12017 | 13 | CoN 12074 |
| 6 | Co 12019 | 14 | CoT 12368 |
| 7 | Co 12021 | 15 | VSI 12121 |
| 8 | Co 12024 | | |
- Standards (2)** : 1) Co 86032 2) Co 99004
Design : RBD
Replications : Two
Plot Size : Gross: 6m x 6r x 1.2m Net: 5m x 4r x 1.2m
Seed rate : 12 buds per meter.
Block No. : 09
Date of planting : 25/12/2014
Date of Harvesting : 01/03/2016

Result and Discussion

The non significant results were recorded by the genotypes in respect of CCS yield. The genotype Co 12016 (126.15 t ha⁻¹) recorded significantly superior cane yield while the genotypes CoM 12085 (123.37 t ha⁻¹), VSI 12121 (123.26 t ha⁻¹), CoN 12074 (120.50 t ha⁻¹), Co 12024 (113.53 t ha⁻¹), Co 12021 (109.21 t ha⁻¹), CoM 12086 (103.08 t ha⁻¹) and CoN 12073 (98.99 t ha⁻¹) were on par with the highest cane yielding check Co 86032 (97.37 t ha⁻¹).

The genotypes Co 12019 (16.07 %), Co 12017 (15.65 %), CoT 12368 (15.32 %), Co 12014 (15.28 %) and CoM 12084 (15.05 %) were on par for CCS per cent when compared to highest CCS per cent recording standard Co 99004 (16.48 %) at 12 months. The best check Co 99004 was superior over all the test entries for sucrose per cent and brix at 12 months (22.67 % & 22.88 %), respectively.

Table 1. IVT Midlate

S. No.	Clone	CCS (t/ha)	Cane yield (t/ha)	CCS % (12m)	Sucrose % (12m)	Brix % (12m)	Purity % (12m)	NMC at 12m ('000/ha)
1	Co 12009	13.42	92.72	14.49	20.21	21.11	95.72	93.40
2	Co 12012	12.33	85.07	14.50	20.01	20.37	98.23	123.03
3	Co 12014	13.28	86.57	15.28	21.20	21.87	96.92	109.61
4	Co 12016	17.75	126.15	14.07	19.44	19.87	97.85	115.86
5	Co 12017	13.30	84.94	15.65	21.56	21.87	98.58	86.92
6	Co 12019	14.81	91.92	16.07	22.12	22.37	98.86	117.48
7	Co 12021	16.31	109.21	14.93	20.57	20.87	98.57	119.68
8	Co 12024	15.75	113.53	13.85	19.23	19.87	96.78	118.98
9	CoM 12084	15.78	104.86	15.05	20.69	20.87	99.14	112.50
10	CoM 12085	18.42	123.37	14.93	20.57	20.87	98.57	108.45
11	CoM 12086	15.41	103.08	14.92	20.57	20.87	98.53	121.53
12	CoN 12073	12.93	98.99	13.02	17.99	18.37	97.92	98.96
13	CoN 12074	16.71	120.50	13.95	19.33	19.87	97.27	96.99
14	CoT 12368	13.75	89.86	15.32	21.10	21.37	98.74	92.94
15	VSI 12121	18.20	123.26	14.80	20.44	20.87	97.91	114.47
Stds								
1	Co 86032	14.55	97.37	14.95	20.67	21.12	97.85	117.82
2	Co 99004	15.24	92.42	16.48	22.67	22.88	99.08	65.97
	SE±	1.40	9.19	0.35	0.47	0.46	0.64	10.65
	CD @ 5%	NS	27.81	1.05	1.41	1.40	NS	NS
	CV %	13.04	12.67	3.32	3.21	3.14	0.92	14.11

Table 2. IVT Midlate

S. No.	Clone	Stalk Length (cm)	Stalk Diameter (cm)	Single cane weight (kg)	CCS % (10 m)	Sucrose % (10 m)	Brix % (10 m)	Purity % (10 m)	No. of tillers ('000/ha) 120 days	Germination % (30 days)
1	Co 12009	283.45	2.96	1.59	14.46	19.90	20.12	98.90	105.90	56.11
2	Co 12012	262.15	2.21	0.87	12.40	17.67	19.36	91.23	177.78	61.11
3	Co 12014	277.65	2.69	1.12	12.40	17.38	18.36	94.64	127.20	53.89
4	Co 12016	267.14	2.95	1.86	13.30	18.33	18.61	98.50	158.33	54.17
5	Co 12017	272.82	2.71	1.26	9.48	13.96	16.41	84.98	108.22	46.81
6	Co 12019	220.67	2.47	1.09	14.16	19.84	20.93	94.78	161.00	59.44
7	Co 12021	284.98	2.86	1.46	11.80	16.38	16.93	96.75	159.49	53.75
8	Co 12024	247.97	3.13	1.52	12.93	17.85	18.18	98.18	157.52	48.61
9	CoM 12084	265.63	2.92	1.51	12.62	17.40	17.68	98.42	125.23	54.44
10	CoM 12085	284.67	3.00	1.86	13.71	18.90	19.18	98.52	114.93	59.31
11	CoM 12086	259.47	2.93	1.39	11.40	16.42	18.43	89.09	171.64	43.33
12	CoN 12073	302.63	2.76	1.58	10.58	15.27	17.18	88.83	105.09	42.50
13	CoN 12074	286.32	3.06	1.92	12.70	17.48	17.68	98.87	109.72	48.89
14	CoT 12368	276.65	2.84	1.25	11.80	16.38	16.93	96.73	100.93	62.08
15	VSI 12121	281.13	2.97	1.87	13.34	18.54	19.18	96.63	140.16	71.25
Std										
1	Co 86032	226.63	2.78	1.27	13.12	18.11	18.43	98.25	167.13	50.42
2	Co 99004	284.25	2.62	1.34	13.10	17.95	18.18	98.71	68.17	47.50
	SE±	16.35	0.03	0.08	0.51	0.63	0.52	1.69	11.91	5.07
	CD @ 5%	NS	0.11	0.24	1.54	1.91	1.58	5.11	36.04	NS
	CV %	8.58	1.75	7.58	5.74	5.09	4.03	2.50	12.68	13.34

- 6) **Title** : **Advanced Varietal Trial- Midlate (I Plant)**
Objective : To evaluate sugarcane varieties for yield and quality.
Year of start : 2015-2016
Name of Scientists : Dr.M.S.Kamble, Breeder
 Prof.D.M.Veer, Plant Pathologist
 Miss.K.B.Patil, Tech.Astt.
 Shri.N.B.Ghodake, Tech.Asstt.
- Entries (11)** :
- | Sr.No | Clone | Sr.No | Clone |
|-------|-----------|-------|------------|
| 1 | Co 09009 | 7 | CoT 10368 |
| 2 | Co 10015 | 8 | CoT 10369 |
| 3 | Co 10017 | 9 | CoVC 10061 |
| 4 | Co 10031 | 10 | PI 10131 |
| 5 | Co 10033 | 11 | PI 10132 |
| 6 | CoM 10083 | | |
- Standards (2)** : 1) Co 86032 2) Co 99004
Design : RBD
Replications : Two
Plot Size : Gross: 6m x 8r x 1.2m Net: 5m x 6r x 1.2m
Seed rate : 12 buds per meter.
Block No. : 11
Date of planting : 22/12/2014
Date of Harvesting : 16/02/2016

Result and Discussion

The genotypes CoT 10369 (19.36 t ha⁻¹) and PI 10131 (18.51 t ha⁻¹) were found to be on par for CCS yield, when compared with highest CCS yielding check Co 86032 (18.43 t ha⁻¹). Considering the cane yield, the genotypes PI 10131 (126.04 t ha⁻¹), CoT 10369 (121.88 t ha⁻¹) and CoM 10083 (121.56 t ha⁻¹) were on par best check for cane yield i.e. Co 86032 (118.87 t ha⁻¹). The genotype CoT 10369 (15.89 %, 21.78 % & 21.82 %) was on par for CCS per cent, Sucrose per cent and Brix with the superior check Co 99004 (15.68 %, 21.56 % & 21.76 %), respectively.

None of the genotypes were superior for stalk length compared with best check Co 99004 (285.83). The genotypes Co 10031 (3.29 cm), PI 10131 (3.15 cm), CoM 10083 (1.41 cm) and Co 09009 (2.93 cm) were on par for stalk diameter with the best stalk diameter check Co 86032 (2.92 cm).

Table 1. IVT Midlate (I plant)

S. No.	Clone	CCS (t/ha)	Cane yield (t/ha)	CCS % (12m)	Sucrose % (12m)	Brix % (12m)	Purity % (12m)	NMC at 12m ('000/ha)
1	Co 09009	14.72	106.87	13.78	19.00	19.30	98.47	110.07
2	Co 10015	15.99	108.36	14.81	20.44	20.83	98.04	117.53
3	Co 10017	2.70	22.82	11.82	16.28	16.49	98.70	48.87
4	Co 10031	14.45	93.11	15.48	21.35	21.68	98.44	85.59
5	Co 10033	15.72	116.11	13.56	18.66	18.86	98.91	118.58
6	CoM 10083	18.42	121.56	15.16	20.79	20.82	99.85	104.95
7	CoT 10368	10.63	69.32	15.37	21.12	21.29	99.22	80.12
8	CoT 10369	19.36	121.88	15.89	21.78	21.82	99.82	115.71
9	CoVC 10061	9.44	73.22	12.86	18.32	20.07	91.27	88.72
10	PI 10131	18.51	126.04	14.70	20.41	21.07	96.82	106.51
11	PI 10132	16.38	107.87	15.16	20.79	20.82	99.83	107.90
Stds								
1	Co 86032	18.43	118.87	15.51	21.35	21.62	98.74	114.41
2	Co 99004	8.96	57.06	15.68	21.56	21.76	99.12	68.84
	SE±	1.10	7.64	0.50	0.63	0.53	1.14	7.49
	CD @ 5%	3.34	23.12	1.53	1.91	1.59	3.45	22.66
	CV %	11.06	11.30	4.89	4.43	3.63	1.64	10.86

Table 2. IVT Midlate (I plant)

S. No.	Clone	Stalk Length (cm)	Stalk Diameter (cm)	Single cane weight (kg)	CCS % (10 m)	Sucrose % (10 m)	Brix % (10 m)	Purity % (10 m)	No. of tillers ('000/ha) 120 days	Germination % (30 days)
1	Co 09009	230.00	2.93	1.25	12.13	17.22	18.71	92.01	130.03	51.56
2	Co 10015	272.50	2.49	1.14	13.53	18.66	18.94	98.54	149.22	33.77
3	Co 10017	150.00	2.29	0.39	11.80	16.17	16.19	99.88	78.30	52.08
4	Co 10031	215.83	3.29	1.41	14.19	19.52	19.71	99.01	106.42	42.88
5	Co 10033	265.83	2.69	1.20	11.94	16.60	17.20	96.48	151.13	50.52
6	CoM 10083	251.50	3.11	1.41	13.72	19.16	20.07	95.46	127.69	60.85
7	CoT 10368	261.66	2.52	1.07	13.31	18.52	19.21	96.38	106.16	47.66
8	CoT 10369	224.50	2.84	1.43	14.65	20.31	20.90	97.15	160.94	51.30
9	CoVC 10061	179.50	2.55	0.89	13.42	18.44	18.57	99.27	106.68	36.28
10	PI 10131	230.17	3.15	1.61	14.72	20.35	20.82	97.81	141.23	54.51
11	PI 10132	215.00	2.87	1.22	12.61	17.48	18.01	97.13	159.81	48.00
Stds										
1	Co 86032	236.67	2.92	1.39	13.52	18.68	19.07	97.93	151.74	49.22
2	Co 99004	285.83	2.34	0.95	13.08	18.00	18.19	98.97	88.02	36.72
	SE±	10.80	0.13	0.11	0.22	0.27	0.35	1.31	6.85	4.11
	CD @ 5%	32.68	0.38	0.34	0.67	0.82	1.05	NS	20.73	12.44
	CV %	6.58	6.49	13.46	2.35	2.08	2.60	1.90	7.60	12.28

Regional Sugarcane and Jaggery Research Station, Kolhapur
All India Coordinated Research Project on Sugarcane
Technical Programme (2016-17)

Sr.No.	Title
1	Initial Varietal Trial-Early
2	Advanced varietal Trial-Early (I Plant)
3	Advanced varietal Trial-Early (II Plant)
4	Advanced varietal Trial-Early (Ratoon)
5	Initial Varietal Trial-Midlate
6	Initial Varietal Trial-Midlate (I Plant)
7	Advanced varietal Trial-Midlate (II Plant)
8	Advanced varietal Trial-Midlate (Ratoon)
9	Evaluation and identification of climate resilient ISH and IGH genetic stocks (Water logging condition)