

Annual report 2013-14
Crop Improvement
All India Coordinated Research Project (Sugarcane)
(NORTH CENTRAL ZONE)
G. S. Sugarcane Breeding and Research Institute
SEORAH, KUSHINAGAR (U P)

Details of Seedling

G.S. Sugarcane Breeding & Research Institute, Seorahi, Kushinagar (U.P.)

Sl.No.	Crosses	Wt. Of Fluff (g)	No. Of Seedlings	No. Of Seedlings/g Fluff
A. Coimbatore (Biparental)				
1	Bo 91 x Co 62198	26.5	820	30.94
2	Co J 83 x Bo 32	17.5	14	0.8
3	Cos 96268xCo 62198	8.0	NIL	-
4	CoS 96268 x Co 86002	9.5	3	0.31
5	CoSe 95422 x Co 775	18.5	190	10.27
6	Co N 05071 x Co 62198	9.0	6	0.66
7	Co 86002 x CoS 96260	25.0	510	20.4
8	CoSe 95422 x CoC 8001	14.0	365	26.07
9	Co 87267xCoS 510	35.0	352	10.05

10	U P 22 x Co 62198	27.0	11	0.40
11	CoLk 8102 x Co 62198	17.5	180	10.28
12	CoS 88216 x Co 62198	35.5	105	2.95
13	U P 9530 x Bo 96	22.0	6	0.27
14	CoJ 83 x Co 1148	22.0	30	1.36
15	Cose 95422 x Cos 510	20.5	242	11.80
16	CoSe 96436 x Co 1148	38.5	432	11.22
17	CoS 8436 x Co Pant 97222	8.0	75	9.37
18	Co 0238 x Cos 8436	17.5	14	0.8
19	Co Pant 90223 x Co 62198	12.5	70	5.5
20	CoS 91269 x Co 775	12.5	8	0.64
21	Co 87267 x CoS 8436	40.0	28	0.7
22	Cose 92423 x co 1148	16.5	335	20.30
23	CoSe 92423 x CoS 8436	19.0	405	21.31
24	CoSe 92423 x Co775	16.5	275	16.66
25	CoSe 8436 x Co 89003	8.5	77	9.05
26	CoS 87216 x Co 775	39.0	645	16.53
27	CoS 8436 x Co 86249	10.0	37	3.7
28	Co 1148 x CoA 7602	17.5	260	14.85
29	Co 8213 x CoS 8436	43.5	19	0.43
30	<u>UP 0097 xSP 80-85</u>	14.5	245	16.89

31	CoLk 8102 x Bo 91	38.0	105	2.76
32	Co 0238 x CoP 9301	17.5	-	-
33	Co 0238 x Bo 91	16.0	30	1.87
34	Bo 91 x Co 0238	29.5	16	0.54
35	Co 0238 x Bo 96	12.5	10	0.8
36	Bo 128 x Bo 91	10.5	70	6.66
37	Bo 130 x Co 62198	16.5	16	0.96
38	Bo 147 x Co 62198	25.0	26	1.04
39	UP 9530 x Bo 32	21.0	65	3.09
40	Bo 139 x Co 99006	21.5	225	10.46
41	Bo 17 x Co 62198	26.5	60	2.26
42	CoS 96268 x Bo 130	19.5	2	0.10
43	CoS 96268 x ISH 287	21.0	5	0.23
44	Co 617 x Bo 130	20.5	142	6.92
	Total	0.917	6331	6.90
B. Zonal Crosses(N C Z)				
1	CoLk 98184 x B o 91	30.0	13	0.43
2	Bo 91 x N Co 310	34.0	9	0.26
3	Bo 147 x Co 62198	27.0	25	0.92
4	Bo 97 x Bo 32	22.5	240	1.06
5	Cose 95422 x Co 62198	25.0	200	8.0

6	U P 9530 x Co p 9301	40.5	11	0.27
7	CoJ 83 x CoH 70	40.0	270	6.75
8	CoSe 95422 x CoS 8436	50.0	347	6.94
9	CoS 8436 x Co 1148	54.5	3285	60.27
10	CoSe 95422 x CoSe 92423	44.5	458	10.29
11	Co 1158 x Co 62198	64.5	2330	36.12
12	Ms 6847 x Co 775	42.5	745	17.52
13	Co 0233 x Cos 8436	37.5	58	1.54
14	CoS 8436 x Co 0233	54.5	93	1.70
15	Ms 6847 x Co 1148	40.0	948	23.7
16	CoS e 96436 x Co 0233	34.5	380	11.01
	Total	0.641	9412	14.68
C. Polly Crosses				
1	Cos 8436	58.0	700	12.06
2	Co 7201	28.0	-	-
3	CoSe 92423	47.5	301	6.33
4	CoV 89101	26.5	1300	49.05
5	CoSe 95422	58.5	725	12.39
6	CoJ 99192	8.5	152	17.88
7	CoJ 83	7.5	16	2.13
8	ISH 100	10.0	6	0.6

	Total	0.244	3200	13.11
D. G Cs				
1	Bo 106	7.0	44	6.28
2	CoSe 95427	47.0	24	0.51
3	Co 775	39.0	2692	69.02
4	Bo 108	131.0	5743	43.83
5	Bo 92	146.5	1165	7.95
6	CoLk 94184	74.0	13	0.17
7	Co 0233	7.0	55	7.85
8	Co 0237	16.5	2	0.12
9	Co Panth 90224	53.5	200	3.73
10	MS 6847	27.5	773	28.10
11	CoA 7602	55.0	13	0.23
12	Co Panth 97222	65.0	4699	72.29
13	Co 617	32.0	252	7.87
14	Bo 89	23.5	110	4.68
15	Bo 96	28.0	2150	76.78
16	Bo 110	8.0	02	0.25
17	CoLk 9229	42.0	36	0.85
18	Bo 97	32.0	650	20.31
19	CoBln 04174	45.0	85	1.88

20	Cos 91269	41.0	23	0.56
21	Co 0240	21.5	51	2.37
22	Bo 109	143.5	7526	52.44
23	Cose 95436	93.0	05	0.05
24	CoSe 95423	101.0	4452	44.07
25	ISH 192	69.0	1115	16.15
	Total	1.348	31880	23.64
	Grand Total	3.150	50823	16.13

WEATHER REPORT 2013-2014
G.S. Sugarcane Breeding & Research Institute
Seorahi, Kushinagar (U.P.)

Month	Temperature Mean C°		Humidity %		Total Rainfall (m.m.)	No. of rainy days
	Mini.	Maxi.	Fore noon	After noon		
April ,2013	18.54	33.19	76.53	48.16	55.2	04
May 13	22.30	34.68	73.93	51.29	78.8	05
June13	23.34	32.44	84.06	63.3	206.8	17
July 13	25.31	32.86	84.35	59.87	140.2	12
August 13	24.70	32.4	82.96	60.74	237.0	17
Sept 13	24.82	33.58	76.93	54.76	70.4	08
Oct.13	19.78	30.99	82.35	62.29	169.4	09
Nov.13	11.80	28.36	83.2	56.73	NIL	NIL
Dec.13	7.76	23.2	85.93	58.51	NIL	NIL
Jan,2014	7.68	17.09	87.74	63.09	27.6	03

Feb. 14	8.96	20.07	86.53	61.96	66.0	06
March 14	12.09	28.69	78.70	51.80	15.8	01
Total					1067.2	82

North Central Zone, Seorahi, Kushinagar
1-ADVANCED VARIETAL TRIAL (EARLY), Ist Plant, 2013-14

S.No	Clone	CCS (t/ha)	Cane Yield(t/ha)	Brix% (10m)	Suc% (10m)	Purity% (10m)	CCS % (10m)	Pol % in Cane(10m)	Ext.% (10m)	Fibre % (10m)	NMC 10m (000/ha)
1	Bo 153	9.58	78.67	19.70	17.55	89.09	12.18	12.99	56.69	13.70	105
2	CoP 08436	9.97	81.89	19.92	17.60	88.33	12.17	13.02	56.86	13.20	110
3	CoSe 09452	10.03	83.22	19.75	17.43	88.27	12.05	12.90	57.33	13.35	116
4	U P 09453	10.70	87.56	19.85	17.63	88.82	12.23	13.05	57.14	13.62	121
Stds											
1	Bo 130	7.06	62.89	18.47	16.26	88.03	11.22	12.03	56.82	13.50	102
2	CoSe 95422	7.86	67.67	19.10	16.83	88.10	11.62	12.45	59.32	13.42	99
	C D	2.062	9.224	Nil	0.96	0.59	0.68				10
	C V	10.74	10.98	3.48	3.68	0.44	3.78				8.37

S.No	Clone	Stalk Length (m)	Stalk Diameter (cm)	Single cane Weight (kg)	Brix % (8m)	Sucrose % (8m)	Purity % (8m)	CCS % (8m)	No. of Shoot (000/ha) 240 days	No of tillers (000/ha) 120 days	Germination % (45 days)
1	Bo 153	2.10	2.05	0.758	16.84	14.78	86.47	10.19		168	55.76
2	CoP 08436	2.09	2.10	0.654	17.91	15.33	86.78	10.43		169	53.75
3	CoSe 0945	2.14	2.20	0.723	16.37	14.30	85.65	9.84		173	58.89

4	U P 09453	2.15	2.13	0.688	17.61	15.03	86.88	10.21		177	59.51
Stds											
1	BO 130	2.03	2.03	0.756	17.83	15.53	87.06	10.66		154	57.64
2	CoSe 9542	2.07	2.08	0.713	17.22	15.06	87.41	10.36		140	52.43
	C D	-	-	0.01	0.16	-	-	-		15	-
	C V	3.07	4.46	1.29	0.59	3.73	0.97	5.51		8.47	9.19

North Central Zone, Seorahi, Kushinagar
2-INITIAL VARIETAL TRIAL (Mid-late) 2013-14

S.No	Clone	CCS (t/ha)	Cane Yield (t/ha)	Brix% (12m)	Suc% (12m)	Purity% (12m)	CCS% (12m)	Pol % in Cane(12m)	Ext.% (12m)	Fibre % (12m)	NMC at 12m (000/ha)
1	CoSe 10451	11.44	81.52	21.94	19.49	88.57	14.04	13.78	54.00	13.20	130
2	CoSe 10452	9.45	77.77	20.09	17.66	87.88	12.16	13.12	52.00	14.40	121
3	CoSe 10453	9.50	79.16	19.04	17.20	87.97	12.01	13.00	54.00	13.10	122
Stds											
1	Bo 91	8.21	65.97	20.49	18.04	88.02	12.45	13.48	51.00	13.30	114
2	CoP 9301	8.40	67.36	20.42	18.08	87.86	12.48	13.56	56.00	13.15	115
3	CoSe 92423	8.00	70.83	18.62	16.39	88.01	11.30	12.45	54.00	13.35	104
	CD		8.58	1.15	0.26	0.48	0.51				-
	CV		7.68	3.82	0.97	0.36	2.69				10.61

S.No	Clone	Stalk Length (m)	Stalk Diameter (cm)	Single cane Weight (kg)	Brix % (10m)	Sucrose % (10m)	Purity % (10m)	CCS % (10m)	No. of shoots (000/ha) 240 days	No of tillers (000/ha) 120 days	Germination % at
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											(45 days)
1	CoSe 10451	1.91	2.27	0.685	19.88	17.55	88.22	12.13		186	44.47
2	CoSe 10452	1.87	2.3	0.670	17.84	16.07	87.90	10.82		191	47.91
3	CoSe 10453	1.85	2.3	0.620	18.99	17.14	88.71	11.87		180	49.68
Stds											
1	Bo 91	1.75	2.0	0.533	19.45	17.18	88.36	11.87		164	46.14
2	CoP 9301	1.67	1.9	0.543	19.74	17.58	88.76	12.18		168	45.83
3	CoSe 92423	1.80	2.2	0.611	18.18	16.05	87.66	11.08		169	46.55
	CD	8.2	0.12	0.060	1.35	1.25	-	0.92		17	-
	CV	3.21	3.77	6.19	4.66	4.88	0.65	5.22		6.45	8.76

3-ADVANCED VARIETAL TRIAL (Mid- late I Plant) 2013-14

S.No	Clone	CCS (t/ha)	Cane Yield(t/ha)	Brix % (12m)	Sucrose% (12m)	Purity % (12m)	CCS% (12m)	Pol % in Cane(12m)	Ext.% (12m)	Fibre % (12m)	NMC 12 m (000/ha)
1	B O 154	9.72	80.56	19.78	17.44	88.21	12.06	13.19	61.84	14.87	134
2	CoP 09437	9.88	78.70	20.25	17.77	87.76	12.25	13.38	63.29	14.41	119
Stds											
1	Bo 91	8.04	68.33	19.41	17.00	88.08	11.76	13.04	63.64	15.06	114
2	CoP 9301	9.03	66.67	22.34	19.64	87.93	13.55	14.79	65.57	13.61	111
3	CoSe 92423	8.04	70.09	19.05	16.67	87.50	11.47	12.64	64.18	14.29	115
	CD	0.83	9.05	0.56	0.52	-	0.83				49
	CV	2.99	2.99	1.80	1.89	0.48	2.99				3.63

S.No	Clone	Stalk Length (m)	Stalk Diameter (cm)	Single cane weight (kg)	Brix % (10m)	Sucrose % (10m)	Purity % (10m)	CCS % (10m)	No. of shoots(000/ha) 240 days	No of tillers (000/ha) 120 days	Germination % (45 days)
1	B O 154	1.97	2.1	0.600	19.17	16.89	88.11	11.67		173	54.37
2	CoP 09437	1.95	2.0	0.655	17.82	15.61	87.55	10.96		161	55.28
Stds											
1	Bo 91	1.64	1.7	0.597	18.48	15.87	87.83	11.00		158	48.68
2	CoP 9301	1.66	1.6	0.595	18.51	16.82	87.94	11.60		149	48.96
3	CoSe 92423	1.70	2.1	0.610	17.97	15.71	87.39	10.81		150	50.69
	CD	0.87	0.13	-	0.79	0.80	-	0.58		10	-
	CV	3.18	4.39	5.34	2.78	3.22	0.73	3.35		5.49	6.767.33

4-ADVANCED VARIETAL TRIAL (Midlate II Plant) 2013-14

S.No	Clone	CCS t/ha	Cane Yield t/ha`	Brix% 12m	Sucrose% 12m	Purity 12m	CCS % 12m	Pol % in cane 12m	Ext. % 12m	Fibre % 12m	NMC 12m (000)
1	CoP 08437	9.23	76.57	19.94	17.48	87.70	9.23	13.13	59.26	15.43	114
2	CoSe 08451	9.54	78.70	20.30	17.66	87.00	9.54	13.25	61.11	14.98	117
3	CoSe 08452	10.53	81.76	21.22	18.67	87.96	10.53	14.01	60.53	15.03	123
Stds											
1	Bo 91	9.62	66.94	20.77	18.21	87.64	9.62	13.65	61.11	14.92	110
2	CoP 9301	8.82	62.04	22.49	19.67	87.44	8.82	14.59	65.0	13.81	107
3	CoSe 92423	8.86	74.17	19.75	17.34	87.82	8.86	13.11	64.62	14.04	111
	C D		5.08	0.55	0.37	-	0.46				
	C V		4.57	1.75	1.35	0.92	2.46				

S.No	Clone	Stalk Length(cm)	Stalk Dia-meter (cm)	Single cane weight(kg)	Brix % (10m)	Sucrose % (10m)	Purity % (10m)	CCS % (10m)	No. of shoots (000/ha)240 days	No of tillers (000/ha)120 days	Germination % (45 days)
1	CoP 08437	184	1.8	0.670	18.30	16.18	88.42	11.19		167	40.00
2	CoSe 08451	199	1.9	0.675	19.95	17.56	87.98	12.12		173	44.03
3	CoSe 08452	204	2.3	0.665	19.57	17.29	88.35	11.96		177	48.82
Stds											
1	Bo 91	163	1.9	0.610	18.06	15.75	87.21	10.72		168	52.01
2	CoP 9301	173	1.6	0.575	20.60	18.16	88.16	12.55		161	42.64
3	CoSe 92423	187	2.3	0.670	18.65	16.38	87.84	11.30		162	43.33
	C D	10.49	0.26	0.03	0.46	0.48	0.73	0.37		-	5.20
	C V	3.74	8.87	3.37	1.58	1.87	0.54	2.14		6.06	7.59

North Central Zone, Seorahi, Kushinagar

5-ADVANCED VARIETAL TRIAL (Midlate -Ratoon) 2013-14

S.No	Clone	CCS (t/ha)	Cane Yield(t/ha)	Brix % (11m)	Sucrose % (11m)	Purity % (11m)	CCS % (11m)	Pol % in Cane(11m)	Ext.% (11m)	Fibre % (11m)
1	CoP 08437	8.61	72.50	19.31	17.12	88.66	11.88	12.90	61.90	14.49
2	CoSe 08451	7.33	68.52	17.59	15.50	88.13	10.70	11.85	62.50	13.96
3	CoSe 08452	9.09	72.69	20.56	18.11	88.05	12.50	13.91	62.75	13.89
Stds										
1	Bo 91	7.12	60.18	19.41	17.11	88.17	11.83	12.90	62.50	14.42
2	CoP 9301	7.35	58.06	20.96	18.37	88.10	12.66	13.95	62.50	13.06
3	CoSe 92423	7.22	62.59	19.28	16.96	88.00	11.65	13.25	61.40	13.79
	CD		7.24	0.68	0.67	-	0.48			
	CV		7.27	2.31	2.57	0.49	2.68			

S.No	Clone	NMC at 11m (000/ha)	Stalk Length (m)	Stalk Diameter (cm)	Single cane Weight (kg)	No. of shoots (000/ha)180 days	No of tillers(000 /ha) 90 days
1	CoP 08437	118	1.64	1.9	0.618		193
2	CoSe 08451	113	1.56	1.8	0.601		178
3	CoSe 08452	114	1.64	1.9	0.621		185
Stds							
1	Bo 91	105	1.47	1.7	0.558		164
2	CoP 9301	107	1.54	1.5	0.531		172
3	CoSe 92423	105	1.58	1.8	0.598		166
	CD	-	0.70	0.16	0.036		12
	CV	7.14	2.95	6.15	4.04		4.72

North Central Zone, Seorahi, Kushinagar
1-ADVANCED VARIETAL TRIAL (Early I Plant), 2013-2014

Sl N.	Varieties	1- Germination%				2 -Tillers				3- NMC				4 -Yield(kg)/ Plot			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	B O 153	199	214	212	178	398	323	281	406	247	239	217	239	158	192	152	206
2	CoP 08436	186	229	191	168	383	407	405	322	271	243	268	204	146	200		197
3	CoSe 09452	221	205	209	213	393	411	402	355	268	247	259	273	190	156	199	204
4	U P 09453	208	225	206	218	416	398	362	419	256	289	291	257	175	205	227	181
Stds																	
1	Bo 130	196	187	207	240	392	318	353	327	252	225	208	238	134	156	115	161
2	CoSe 95422	195	180	207	173	317	309	300	331	201	227	241	220	115	194	168	132

SI N.	Varieties	5- CCS Kg/Plot				6- Brix % (Nov)				7-Sucrose % (Nov)				8-Purity % (Nov)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	B O 153	20.16	22.85	18.47	24.51	16.89	16.89	16.89	16.69	15.56	14.67	14.62	14.26	87.02	86.85	86.56	85.44
2	CoP 08436	17.71	24.10	23.98	23.90	17.88	17.88	17.98	17.88	14.74	15.51	15.56	15.48	87.27	86.74	86.54	86.57
3	CoSe09452	22.61	18.53	24.36	24.83	16.39	16.39	16.29	16.39	15.49	13.93	13.77	14.01	87.61	84.99	84.53	85.47
4	U P 09453	20.84	26.16	28.92	20.78	17.68	17.68	17.68	17.39	14.03	15.49	15.49	15.08	85.60	87.61	87.61	86.71
Stds																	
1	Bo 130	15.50	17.47	12.71	17.82	17.88	17.88	17.68	17.88	15.54	15.54	15.47	15.54	86.91	86.91	87.50	86.91
2	CoSe95422	12.90	21.03	20.56	16.08	17.09	17.19	17.39	17.19	14.86	15.11	15.13	15.11	86.95	87.79	87.00	87.89

SI N.	Varieties	9- CCS % (Nov)				10- Brix% (Jan)				11- Sucrose% (Jan)				12- Purity % (Jan)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	B O 153	10.97	10.06	10.01	9.70	20.62	19.12	19.92	19.12	18.38	17.11	17.58	17.11	89.13	89.48	88.25	89.48
2	CoP08436	9.84	10.63	10.65	10.60	19.72	19.82	20.42	19.72	17.50	17.45	17.93	17.50	88.74	88.04	87.80	88.74
3	CoSe09452	11.04	9.45	9.32	9.53	19.42	19.32	20.22	20.02	17.19	17.14	17.75	17.63	88.51	88.71	87.78	88.06
4	U P 09453	9.18	10.67	10.67	10.33	19.32	20.62	20.62	18.82	17.17	18.38	18.36	16.61	88.87	89.13	89.03	88.25
Stds																	
1	Bo 130	10.66	10.66	10.65	10.66	18.90	18.42	18.32	18.22	16.73	16.22	16.05	16.04	88.42	88.05	87.60	88.03
2	CoSe95422	10.20	10.42	10.38	10.42	18.42	17.92	20.22	19.82	16.24	15.73	17.75	17.58	88.16	87.77	87.78	88.69

Sl N.	Varieties	13- CCS% (Jan)				14 - Height(cm)				15-Girth (cm)				16- Single cane wt.(Kg)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	B O 153	12.76	11.90	12.15	11.90	215	205	210	200	2.1	2.1	2.0	2.0	0.765	0.755	0.770	0.740
2	CoP 08436	12.13	12.05	12.36	12.13	207	212	205	210	2.2	2.1	2.1	2.0	0.665	0.635	0.660	0.655
3	CoSe 09452	11.90	11.88	12.24	12.17	220	210	212	215	2.2	2.3	2.1	2.2	0.725	0.715	0.730	0.720
4	U P 09453	11.91	12.76	12.74	11.48	215	222	207	217	2.0	2.2	2.2	2.1	0.685	0.690	0.680	0.695
Stds																	
1	Bo 130	11.57	11.20	11.05	11.07	190	215	205	200	2.2	1.9	2.1	1.9	0.745	0.755	0.765	0.760
2	CoSe 95422	11.22	10.84	12.24	12.18	205	212	200	210	2.1	2.2	2.0	2.0	0.705	0.710	0.720	0.715

2-INITIAL VARIETAL TRIAL (Mid- Late) 2013-14

Sl.No.	Clone	1-Germination				2-Tillers				3-NMC			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoSe 10451	116	110	96	105	325	348	310	355	225	248	202	260
2	CoSe 10452	96	115	121	128	306	336	348	385	210	235	200	230
3	CoSe 10453	124	118	125	110	318	348	331	302	231	210	240	198
Stds													
1	Bo 91	119	102	116	106	312	291	280	300	200	175	232	218
S2	CoP 9301	100	114	106	120	285	292	310	322	175	210	236	210
3	CoSe 92423	114	110	110	104	312	300	317	290	178	210	185	178

Sl.No.	Varieties	4- Yield(Kg/ Plot)				5- CCS(Kg/Plot)				6-Brix % (Jan)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoSe 10451	142	150	135	160	19.14	21.42	18.14	23.96	19.67	21.17	18.47	20.27
2	CoSe 10452	155	140	135	130	18.58	17.03	16.36	15.78	17.18	18.17	18.07	17.97
3	CoSe 10453	130	150	138	152	16.01	17.79	16.24	18.42	19.61	19.27	19.27	19.17
Stds													
1	Bo 91	130	120	115	110	16.43	14.76	14.46	13.50	21.27	18.27	19.37	18.87
2	CoP 9301	125	115	110	135	15.56	14.22	13.55	16.64	19.94	18.69	19.60	20.96
3	CoSe 92423	140	130	125	115	15.86	14.70	13.97	13.12	18.87	18.22	17.08	18.57

Sl.No.	Varieties	7 -Sucrose % (Jan)				8- Purity % (Jan)				9- CCS % (Jan)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R 4
1	CoSe 10451	17.37	18.80	16.32	17.73	88.30	88.80	88.35	87.46	12.02	13.03	11.28	12.20
2	CoSe 10452	15.03	16.07	15.78	15.88	87.48	88.44	87.32	88.36	10.34	11.11	10.85	10.98
3	CoSe 10453	17.24	17.12	17.12	17.11	87.92	88.84	88.84	89.25	11.89	11.86	11.86	11.88
Stds													
1	Bo 91	18.84	16.05	17.17	16.68	88.57	87.84	88.64	88.39	13.02	11.06	11.89	11.53
2	CoP 9301	17.70	16.60	17.27	18.75	88.75	88.80	88.08	89.43	12.26	11.50	11.92	13.04
3	CoSe 92423	16.66	15.25	15.96	16.34	88.28	86.79	87.58	87.99	11.51	10.24	11.32	11.27

Sl.No.	Varieties	10 -Brix% (March).				11-Sucrose % (March)				12- Purity % (March)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoSe 10451	21.92	22.02	21.82	22.02	19.46	19.58	19.39	19.53	88.77	88.91	87.92	88.69
2	CoSe 10452	20.32	20.02	20.02	20.02	17.83	17.63	17.58	17.60	87.75	88.06	87.81	87.91
3	CoSe 10453	18.42	18.22	19.52	20.02	17.32	16.82	17.10	17.58	88.59	87.92	87.60	87.77
Stds													
1	Bo 91	20.62	20.32	20.6	20.42	18.26	17.85	18.21	17.85	88.55	87.84	88.31	87.41
2	CoP 9301	20.42	20.44	20.81	20.40	18.02	17.95	18.45	17.90	88.24	87.90	88.65	87.65
3	CoSe 92423	18.62	18.62	18.52	18.72	16.41	16.39	16.24	16.52	88.13	88.02	87.68	88.24

Sl.No.	Varieties	13-CCS%(MARCH)				14-Height (CM)				15-Girth(CM)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoSe 10451	13.48	14.28	13.44	14.98	1.90	2.00	1.85	1.90	2.2	2.3	2.2	2.4
2	CoSe 10452	12.23	12.17	12.12	12.14	1.85	1.90	1.95	1.80	2.3	2.2	2.2	2.3
3	CoSe 10453	12.32	11.86	11.77	12.12	1.90	1.95	1.80	1.75	2.4	2.3	2.2	2.3
Stds													
1	Bo 91	12.64	12.30	12.58	12.28	1.70	1.75	1.80	1.75	2.1	2.0	2.0	2.2
2	CoP 9301	12.45	12.37	12.77	12.33	1.70	1.65	1.70	1.65	1.9	1.8	2.0	2.0
3	CoSe 92423	11.33	11.31	11.18	11.41	1.75	1.80	1.90	1.75	2.1	2.3	2.3	2.3

Sl.No.	Varieties	16 Single cane wt(kg)			
		R-1	R-2	R-3	R-4
1	CoSe 10451	0.700	0.750	0.650	0.640
2	CoSe 10452	0.710	0.650	0.640	0.680
3	CoSe 10453	0.630	0.580	0.640	0.630
Stds					
1	Bo 91	0.500	0.510	0.525	0.600
2	CoP 9301	0.525	0.560	0.550	0.540
3	CoSe 92423	0.600	0.610	0.615	0.620

3. ADVANCE VARIETAL TRIAL (Mid-late I Plant) 2013-14

SI N.	Varieties	1 - Germination				2-Tiller				3-NMC			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	Bo 154	173	198	203	222	483	503	445	421	365	382	354	341
2	CoP 09437	205	189	190	199	435	459	420	425	310	335	319	325
Stds													
1	Bo 91	151	174	184	192	434	421	448	404	299	305	315	309
2	CoP 9301	150	172	198	185	437	384	391	402	312	295	289	303
3	CoSe 92423	180	168	195	187	402	429	405	383	298	328	305	312

SI N.	Varieties	4 -Yield (Kg)/Plot				5-CCS (Kg)/Plot				6- Brix% (Jan)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	Bo 154	205	220	210	215	26.38	28.01	26.38	24.19	18.67	18.97	19.87	19.17
2	CoP 09437	220	230	215	205	25.71	26.55	25.83	25.95	17.57	18.47	18.07	17.18

Stds													
1	Bo 91	180	185	188	185	21.92	21.31	21.34	22.18	18.17	17.97	17.68	18.48
2	CoP 9301	175	180	185	180	24.46	24.19	24.88	24.68	19.57	18.57	19.88	18.51
3	CoSe 92423	182	200	185	190	22.74	23.08	21.20	21.89	18.27	17.57	18.47	17.58

SI N.	Varieties	7 -Sucrose %(Jan)				8- Purity % (Jan)				9- CCS % (Jan)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	Bo 154	16.27	16.70	17.58	17.02	87.14	88.03	88.47	88.78	11.18	11.53	12.16	11.80
2	CoP 09437	15.25	16.34	15.83	15.01	86.79	88.46	87.60	87.36	10.45	11.31	10.90	11.16
Stds													
1	Bo 91	16.02	15.78	15.52	16.18	88.16	87.78	87.55	87.83	11.07	10.88	10.89	11.14
2	CoP 9301	17.23	16.37	17.46	16.23	88.08	88.15	87.83	87.68	11.89	11.28	12.03	11.18
3	CoSe 92423	16.02	15.32	16.34	15.16	87.68	88.46	86.23	87.29	11.04	10.53	11.31	10.36

SI N.	Varieties	10- Brix% (March)				11- Sucrose% (March)				12- Purity % (March)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	Bo 154	20.62	20.02	20.32	20.02	17.39	17.59	17.68	17.12	87.73	88.66	88.75	87.70
2	CoP 09437	19.82	19.84	19.92	19.52	18.17	17.53	17.84	17.53	88.11	87.56	87.80	87.56
Stds													
1	Bo 91	20.02	18.78	18.82	19.82	17.64	16.64	16.48	17.39	88.11	88.60	87.56	87.73
2	Cop 9301	22.48	22.02	22.39	22.52	19.73	19.44	19.54	19.85	87.77	88.28	87.54	88.14
3	CoSe 92423	18.72	19.22	19.12	19.12	16.47	16.78	16.68	16.73	87.98	87.30	87.23	87.50

SI N.	Varieties	13- CCS% (March)				14 - Height (Cm)				15- Girth (cm)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoP 09437	12.54	12.07	12.30	12.07	202	200	185	196	1.9	2.1	2.1	1.8
3	Bo 154	11.99	12.18	12.25	11.80	195	199	188	207	2.1	2.2	2.1	2.1

Stds													
1	Bo 91	12.18	11.52	11.35	11.99	166	170	163	156	1.8	1.8	1.6	1.5
2	CoP 9301	13.59	13.44	13.45	13.71	172	171	163	158	1.7	1.8	1.6	1.4
3	CoSe 92423	11.37	11.54	11.46	11.52	173	178	166	162	2.2	2.3	2.1	1.9

Sl.No.	Varieties	16- Single cane wt.(kg)			
		R-1	R-2	R-3	R-4
1	CoP 09437	0.660	0.635	0.650	0.675
2	Bo 154	0.625	0.632	0.575	0.568
Stds					
1	Bo 91	0.620	0.575	0.550	0.643
2	CoP 9301	0.565	0.580	0.625	0.610
3	CoSe 92423	0.580	0.595	0.640	0.625

4- ADVANCED VARIETAL TRIAL (Mid- Late), II Plant 2013-14

Sl.No.	Clone	1-Germination				2-Tillers				3-NMC			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoP08437	152	155	129	140	497	459	445	407	316	305	298	309
2	CoSe 08451	178	138	153	170	495	464	437	477	290	325	338	306
3	CoSe 08452	194	173	159	177	505	516	435	460	313	327	339	345
Std													
1	Bo 91	186	202	173	188	446	423	469	475	289	302	292	310
S2	CoP 9301	170	167	129	148	446	447	423	426	278	291	289	302
3	CoSe 92423	161	154	161	148	431	419	465	439	295	306	317	283

Sl.No.	Varieties	4- Yield(kg)/ Plot				5- CCS Kg/Plot				6-Brix % (Jan)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoP 08437	210	205	202	210	28.25	24.72	24.24	25.03	18.37	18.17	18.17	18.47
2	CoSe 08451	215	200	210	225	25.97	24.10	25.43	27.56	20.07	19.97	19.87	19.90
3	CoSe 08452	225	235	205	218	29.18	30.32	28.89	28.54	19.97	19.56	19.27	19.47
Stds													
1	Bo 91	175	190	173	185	22.49	23.20	21.66	23.38	18.27	17.68	18.10	18.20
2	CoP 9301	160	170	165	175	21.52	20.62	22.41	23.64	20.47	21.17	20.17	20.57
3	CoSe 92423	196	205	210	190	23.74	24.33	25.35	22.34	19.32	18.42	18.69	18.17

Sl.No.	Varieties	7 -Sucrose % (Jan)				8- Purity % (Jan)				9- CCS % (Jan)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R 4
1	CoP 08437	16.27	16.07	16.08	16.29	88.56	88.44	88.49	88.19	11.26	11.12	11.13	11.26
2	CoSe 08451	17.63	17.58	17.53	17.48	87.84	88.03	88.22	87.84	12.16	12.14	12.11	12.05
3	CoSe 08452	17.60	17.26	17.12	17.17	88.13	88.24	88.84	88.18	12.18	11.93	11.87	11.86
Stds													
1	Bo 91	16.00	15.40	15.71	15.90	87.57	87.10	86.80	87.36	11.02	10.58	10.33	10.94
2	CoP 9301	17.88	18.82	17.68	18.26	87.34	88.89	87.65	88.77	12.30	13.05	12.18	12.66
3	CoSe 92423	17.07	16.08	16.34	16.04	87.30	87.42	88.27	87.84	11.80	11.06	11.24	11.09

Sl.No.	Varieties	10 -Brix% (March).				11-Sucrose % (March)				12- Purity % (March)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoP 08437	20.52	18.82	20.02	19.38	17.80	17.46	17.46	17.20	86.74	88.09	87.21	88.75
2	CoSe 08451	20.42	20.32	19.85	20.62	17.65	17.60	17.52	17.88	86.43	86.61	88.26	86.71
3	CoSe 08452	21.22	21.02	20.92	21.72	18.75	18.63	18.27	19.01	88.36	88.62	87.33	87.52
Stds													
1	Bo 91	21.02	20.42	20.72	20.92	18.58	17.78	18.17	18.29	88.39	87.07	87.69	87.42
2	CoP 9301	22.52	22.72	22.72	22.01	19.59	19.80	19.78	19.51	86.98	87.14	87.05	88.60
3	CoSe 92423	20.42	19.62	19.62	19.32	17.68	17.22	17.42	17.03	86.58	87.76	88.78	88.14

Sl.No.	Varieties	13-CCS%(MARCH)				14-Height (CM)				15-Girth(CM)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoP 08437	12.20	12.06	12.00	11.92	192	177	181	186	2.2	1.6	1.7	1.8
2	CoSe 08451	12.08	12.05	12.11	12.25	202	213	196	185	2.3	2.1	1.7	1.6
3	CoSe 08452	12.97	12.90	12.56	13.09	212	199	196	208	2.3	2.3	2.2	2.4
Stds													
1	Bo 91	12.85	12.21	12.52	12.64	167	162	154	167	2.2	1.8	1.7	1.7
2	CoP 9301	13.45	12.13	13.58	13.51	174	167	173	179	1.7	1.6	1.7	1.5
3	CoSe 92423	12.11	11.87	12.07	11.76	188	187	180	194	2.3	2.2	2.3	2.4

Sl.No.	Varieties	16 Single cane wt(kg)			
		R-1	R-2	R-3	R-4
1	CoP 08437	0.670	0.685	0.675	0.650
2	CoSe 08451	0.650	0.660	0.690	0.700
3	CoSe 08452	0.645	0.675	0.650	0.690
Stds					
1	Bo 91	0.575	0.600	0.625	0.640
2	CoP 9301	0.540	0.560	0.610	0.590
3	CoSe 92423	0.690	0.665	0.650	0.675

5 -ADVANCED VARIETAL TRIAL (Mid- Late) Ratoon

Sl.No.	Clone	1-Tillers				2-NMC				3-Yield (kg)/ Plot			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoP08437	489	525	543	527	290	324	336	324	190	175	205	213
2	CoSe 08451	455	498	482	497	306	312	272	325	190	195	175	180
3	CoSe 08452	513	493	473	528	309	310	275	335	205	208	180	192
Stds													
1	Bo 91	406	445	477	444	270	284	318	257	155	160	185	150
S2	CoP 9301	444	497	443	477	284	303	294	281	150	165	160	152
3	CoSe 92423	453	457	464	423	296	282	274	280	175	167	165	170

Sl.No.	Varieties	4- CCS (kg)/ Plot				5- Brix % (Jan)				6-Sucrose % (Jan)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoP 08437	22.80	20.35	24.44	25.47	19.36	19.06	19.26	19.56	17.19	16.83	17.17	17.29
2	CoSe 08451	20.20	21.31	18.74	18.97	17.46	17.96	17.56	17.36	15.39	15.83	15.50	15.27
3	CoSe 08452	24.83	26.71	23.02	23.52	19.96	21.06	21.06	20.16	17.56	17.58	18.53	17.75
Stds													
1	Bo 91	18.10	18.99	21.20	18.44	19.06	19.26	18.96	20.36	16.87	17.12	16.63	17.83
2	CoP 9301	17.73	21.25	20.72	19.71	20.16	21.16	21.36	21.16	17.33	18.65	18.77	18.72
3	CoSe 92423	19.95	18.94	19.60	20.38	19.12	18.76	19.56	19.66	16.82	16.46	17.22	17.35

Sl.No.	Varieties	7-Purity % (Jan)				8- CCS % (Jan)				9-Height(cm)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoP 08437	88.79	88.30	89.14	88.39	12.00	11.63	11.92	11.96	173	159	161	161
2	CoSe 08451	88.14	88.14	88.29	87.96	10.63	10.93	10.71	10.54	159	157	150	158
3	CoSe 08452	87.96	88.22	87.98	88.04	12.11	12.84	12.79	12.25	174	161	163	159
Stds													
1	Bo 91	88.50	88.89	87.71	87.57	11.68	11.87	11.46	12.29	145	147	145	149
2	CoP 9301	87.94	88.14	87.87	88.46	11.82	12.88	12.95	12.97	155	146	159	156
3	CoSe 92423	87.97	87.73	88.03	88.25	11.40	11.34	11.88	11.99	158	161	154	159

Sl.No.	Varieties	10-Girth(cm)				11- Single cane wt(kg)			
		R-1	R-2	R-3	R-4	R-1	R-2	R-3	R-4
1	CoP 08437	2.1	1.9	1.7	1.7	0.650	0.625	0.605	0.590
2	CoSe 08451	1.8	1.8	1.7	1.9	0.600	0.575	0.605	0.625
3	CoSe 08452	2.0	1.9	1.8	1.8	0.625	0.650	0.600	0.610
Stds									
1	Bo 91	1.7	1.7	1.6	1.8	0.575	0.550	0.580	0.525
2	CoP 9301	1.5	1.4	1.6	1.6	0.525	0.540	0.550	0.510
3	CoSe 92423	1.9	1.7	1.8	1.7	0.575	0.590	0.600	0.625