



# **All India Coordinated Research Project On Sugarcane**

**Annual Report (2016-17)**

## Initial Varietal Trial (Early)

S.No.	Entries	CCS (t/ha)	Cane Yield (t/ha)	CCS % (10m)	Sucrose % (10m)	Brix % (10m)	Purity % (10m)	NMC (000/ha)	Stalk Length (cm)
1	CoSe 13451	10.41	82.83	12.26	17.67	19.90	88.84	137	218
2	CoSe 13452	9.79	81.66	11.98	17.33	19.65	88.20	132	233
3	CoP 13436	10.16	85.83	11.84	17.15	19.49	88.00	140	255
4	CoP 13437	9.33	76.50	12.21	17.56	19.64	89.40	126	226
<b>Standards</b>									
1	BO 130	7.78	67.00	11.61	16.85	19.21	87.71	110	206
2	CoSe 95422	7.65	64.83	11.80	17.09	19.42	88.00	102	195
	SE	0.73	3.81	0.11	-	-	-	6.40	8.98
	CD	1.57	8.14	0.25	-	-	-	13.65	19.15
	CV	7.68	7.07	1.45	-	-	-	7.26	5.72

S.No.	Entries	Stalk Diameter (cm)	Single Cane Weight (Kg)	CCS % (8m)	Sucrose % (8m)	Brix % (8m)	Purity % (8m)	No. of Tillers (000/ha)	Germination %
1	CoSe 13451	2.21	2.635	10.97	16.01	18.49	86.58	230	47.91
2	CoSe 13452	2.31	2.890	10.67	15.61	18.09	86.25	218	42.18
3	CoP 13436	2.38	2.765	10.90	15.82	18.10	87.40	234	45.35
4	CoP 13437	2.25	2.885	10.72	15.70	18.24	86.03	209	41.04
<b>Standards</b>									
1	BO 130	2.10	2.40	10.38	15.36	18.22	84.33	180	34.99
2	CoSe 95422	2.20	2.47	9.79	14.38	16.79	85.65	170	32.28
	SE	-	0.05	0.35	0.45	0.40	-	6.15	2.92
	CD	-	0.12	0.76	0.96	0.86	-	13.12	6.24
	CV	-	11.73	4.82	3.44	3.19	-	6.84	10.14

## Advanced Varietal Trial (Early – I Plant)

S.No.	Entries	CCS (t/ha)	Cane Yield (t/ha)	CCS % (10m)	Sucrose % (10m)	Brix % (10m)	Purity % (10m)	NMC (000/ha)	Stalk Length (cm)
1	CoSe 12451	11.68	94.55	12.35	17.81	20.02	88.93	141	236
2	CoP 12436	9.75	82.77	11.78	17.08	19.46	87.80	141	205
3	CoLk 12207	9.42	78.78	11.95	17.31	19.66	88.03	128	220
<b>Standards</b>									
1	BO 130	8.39	70.77	11.85	17.15	19.20	88.20	113	209
2	CoSe 95422	7.89	67.22	11.73	17.01	19.34	87.92	122	198
	SE	0.44	3.10	0.35	-	0.24	-	4.75	12.92
	CD	0.98	6.76	0.78	-	0.54	-	10.37	28.16
	CV	6.86	5.56	5.12	-	1.84	-	5.19	8.55

S.No.	Entries	Stalk Diameter (cm)	Single Cane Weight (Kg)	CCS % (8m)	Sucrose % (8m)	Brix % (8m)	Purity % (8m)	No. of Tillers (000/ha)	Germination %
1	Cose 12451	2.28	0.66	11.47	16.77	19.42	86.41	236	44.13
2	CoP 12436	2.21	0.63	11.23	16.31	18.63	87.57	235	40.88
3	CoLk 12207	2.15	0.56	11.22	16.36	18.87	86.74	213	38.10
<b>Standards</b>									
1	BO 130	2.01	0.59	11.13	16.22	18.64	86.97	190	33.31
2	CoSe 95422	2.24	0.27	11.03	16.10	18.60	86.56	204	36.57
	SE	-	0.02	-	-	0.30	-	7.74	1.92
	CD	-	0.04	-	-	0.67	-	16.87	4.20
	CV	-	4.71	-	-	2.31	-	5.06	7.07

## Advanced Varietal Trial (Early - II Plant)

S.No.	Entries	CCS (t/ha)	Cane Yield (t/ha)	CCS % (10m)	Sucrose % (10m)	Brix % (10m)	Purity % (10m)	NMC (000/ha)	Stalk Length (cm)
1	CoSe 11451	11.15	86.66	12.02	17.39	19.70	88.28	154	244
2	CoP 11436	9.75	82.78	11.78	17.09	19.46	87.80	139	230
3	CoP 11437	6.29	51.56	12.20	17.61	19.85	88.68	103	215
4	CoP 11438	10.28	81.67	12.58	17.58	20.34	89.06	135	251
<b>Standards</b>									
1	CoSe 95422	8.23	70.11	11.73	17.03	19.45	87.58	115	200
2	BO 130	7.90	67.78	11.65	16.9	19.25	87.79	111	211
	SE	0.58	2.19	0.16	0.18	0.22	-	7.92	14.01
	CD	1.24	4.68	0.36	0.39	0.47	-	16.89	29.86
	CV	9.24	9.02	2.04	1.49	1.60	-	8.85	8.81
S.No.	Entries	Stalk Diameter (cm)	Single Cane Weight (Kg)	CCS % (8m)	Sucrose % (8m)	Brix % (8m)	Purity % (8m)	No. of Tillers (000/ha)	Germination %
1	CoSe 11451	2.25	0.740	10.52	15.39	17.84	86.29	238	42.40
2	CoP 11436	2.20	0.635	10.06	14.80	17.37	85.24	231	41.08
3	CoP 11437	1.95	0.600	11.06	16.14	18.58	86.83	172	34.70
4	CoP 11438	2.35	0.730	11.15	16.29	18.82	86.5	226	40.25
<b>Standards</b>									
1	CoSe 95422	2.00	0.598	10.81	15.76	18.17	86.75	193	34.35
2	BO 130	2.20	0.648	10.14	15.87	18.32	86.63	186	32.62
	SE	-	0.020	0.42	-	0.20	0.42	13.86	2.38
	CD	-	0.040	0.91	-	0.43	0.91	29.55	5.08
	CV	-	4.860	5.72	-	3.39	5.72	9.43	18.31

## Advanced Varietal Trial (Midlate – I Plant)

S.No.	Entries	CCS (t/ha)	Cane Yield (t/ha)	CCS % (12m)	Sucrose % (12m)	Brix % (12m)	Purity % (12m)	NMC (000/ha)	Stalk Length (cm)
1	CoSe 12453	10.06	82.87	12.13	17.56	19.90	88.22	125	246
2	CoLk 09204	9.84	82.40	11.95	17.35	19.78	87.72	135	226
3	CoLk 12209	10.40	83.33	12.49	18.09	20.39	88.54	139	308
4	CoP 12438	9.68	80.65	12.00	17.43	19.91	87.54	124	285
<b>Standards</b>									
1	CoP 9301	9.00	68.18	12.61	18.15	20.37	88.67	118	220
2	BO 91	9.28	71.30	11.85	17.22	19.66	87.53	132	261
	SE	1.71	3.98	0.20	0.05	0.28	-	-	16.86
	CD	3.65	8.43	0.42	0.12	0.60	-	-	35.94
	CV	8.99	7.16	2.32	2.12	2.00	-	-	9.25
S.No.	Entries	Stalk Diameter (cm)	Single Cane Weight (Kg)	CCS % (10m)	Sucrose % (10m)	Brix % (10m)	Purity % (10m)	No. of Tillers (000/ha)	Germination %
1	CoSe 12453	2.43	0.665	10.65	15.66	17.97	86.71	206	38.52
2	CoLk 09204	2.15	0.645	10.83	15.84	18.35	86.33	225	41.29
3	CoLk 12209	2.65	0.730	11.30	15.43	17.81	86.64	232	43.03
4	CoP 12438	2.15	0.600	10.44	16.33	18.93	86.29	205	37.48
<b>Standards</b>									
1	CoP 9301	2.35	0.596	11.18	16.16	18.28	88.46	197	36.09
2	BO 91	2.10	0.580	10.84	15.89	18.50	85.96	219	40.25
	SE	0.11	0.010	0.15	-	0.33	-	11.27	2.03
	CD	0.25	0.020	0.33	-	0.72	-	24.04	4.34
	CV	7.40	4.450	2.05	-	2.62	-	7.44	7.30

## Advanced Varietal Trial (Midlate – II Plant)

S.No.	Entries	CCS (t/ha)	Cane Yield (t/ha)	CCS % (12m)	Sucrose % (12m)	Brix % (12m)	Purity % (12m)	NMC (000/ha)	Stalk Length (cm)
1	CoSe 11453	10.97	90.74	12.10	17.52	19.87	88.14	139	240
2	CoSe 11454	9.14	76.02	12.02	17.44	19.90	87.64	123	206
3	CoSe 11455	14.28	112.04	12.75	18.28	20.30	88.78	142	275
4	BO 155	10.59	88.43	12.00	17.42	19.90	87.57	126	255
<b>Standards</b>									
1	BO 91	8.71	74.07	11.75	17.10	19.63	87.14	122	254
2	CoP 9301	8.07	63.43	12.73	18.17	20.55	89.18	103	240
3	CoSe 92423	8.16	70.18	11.62	16.86	19.20	87.76	98	235
	SE	0.48	9.24	0.20	0.29	0.20	0.37	6.49	9.08
	CD	1.02	19.42	0.44	0.63	0.44	0.78	13.65	19.08
	CV	6.91	15.91	2.47	2.41	1.50	0.60	7.51	5.28
S.No.	Entries	Stalk Diameter (cm)	Single Cane Weight (Kg)	CCS % (10m)	Sucrose % (10m)	Brix % (10m)	Purity % (10m)	No. of Tillers (000/ha)	Germination %
1	CoSe 11453	2.35	0.745	10.94	16.10	18.92	85.14	245	46.75
2	CoSe 11454	2.30	0.690	10.62	15.61	18.29	85.37	205	38.52
3	CoSe 11455	2.45	0.765	11.48	16.80	19.50	86.21	236	44.49
4	BO 155	2.20	0.655	10.63	15.68	18.45	84.96	202	37.89
<b>Standards</b>									
1	BO 91	2.15	0.620	10.65	15.52	18.10	85.77	210	38.38
2	CoP 9301	2.20	0.645	11.52	16.86	19.57	86.14	172	31.92
3	CoSe 92423	2.50	0.775	10.16	14.97	17.59	85.11	162	30.33
	SE	0.08	-	0.56	-	0.53	-	10.56	2.06
	CD	0.18	-	1.18	-	1.12	-	22.19	4.34
	CV	5.34	-	7.31	-	4.05	-	7.28	6.54

## Advanced Varietal Trial (Early - Ratoon)

S.No.	Entries	CCS (t/ha)	Cane Yield (t/ha)	CCS %	Sucrose % (10m)	Brix % (10m)	Purity % (10m)	NMC (000/ha)	Stalk Length (cm)
1	CoSe 11451	8.39	76.11	11.00	16.06	18.52	86.68	150	238
2	CoP 11436	8.29	75.38	11.08	16.23	18.85	86.10	142	240
3	CoP 11437	6.27	58.56	10.90	15.91	18.35	86.68	115	206
4	CoP 11438	8.19	74.44	10.99	16.13	18.82	85.74	149	248
<b>Standards</b>									
1	CoSe 95422	6.70	63.33	10.64	15.46	17.66	87.53	127	216
2	BO 91	7.00	60.56	11.57	16.85	19.37	87.01	121	211
	SE	0.36	4.78	-	0.24	0.28	-	4.77	0.16
	CD	0.77	10.20	-	0.52	0.60	-	10.17	0.34
	CV	11.14	9.95	-	3.51	3.48	-	10.72	10.09
S.No.	Entries	Stalk Diameter (cm)		Single Cane Weight (Kg)		No. of Tillers (000/ha)			
1	CoSe 11451	2.34		0.583		252			
2	CoP 11436	2.24		0.584		236			
3	CoP 11437	2.08		0.505		191			
4	CoP 11438	1.84		0.598		247			
<b>Standards</b>									
1	CoSe 95422	2.05		0.528		212			
2	BO 130	1.95		0.508		204			
	SE	0.10		0.020		8.19			
	CD	0.21		0.050		17.46			
	CV	6.54		6.550		11.01			

## Advanced Varietal Trial (Midlate – Ratoon)

S.No.	Entries	CCS (t/ha)	Cane Yield (t/ha)	CCS % at Harvest	Sucrose % at Harvest	Brix % at Harvest	Purity % at Harvest	NMC (000/ha)	Stalk Length (cm)
1	CoSe 11453	8.89	80.56	11.04	16.14	18.67	86.52	135	210
2	CoSe 11454	8.56	78.24	10.94	15.99	18.50	86.43	129	189
3	CoSe 11455	10.05	88.88	11.31	16.52	19.07	86.62	143	239
4	BO 155	8.58	79.63	10.82	15.95	18.77	84.93	134	213

### Standards

1	BO 91	8.29	76.57	10.83	15.82	18.30	85.50	139	233
2	CoP 9301	8.47	75.83	11.17	16.41	19.17	86.64	126	194
3	CoSe 92423	8.00	76.39	10.46	15.47	18.32	84.38	120	201
	SE	0.49	4.45	-	-	-	-	11.02	4.85
	CD	1.03	9.35	-	-	-	-	23.16	10.19
	CV	8.05	6.79	-	-	-	-	11.75	6.83

S.No.	Entries	Stalk Diameter (cm)	Single Cane Weight (Kg)	No. of Tillers (000/ha)
1	CoSe 11453	2.34	0.658	224
2	CoSe 11454	2.48	0.598	214
3	CoSe 11455	2.45	0.749	237
4	BO 155	2.10	0.654	231

### Standards

1	BO 91	2.05	0.561	232
2	CoP 9301	2.29	0.608	212
3	CoSe 92423	2.36	0.756	200
	SE	0.11	0.030	10.83
	CD	0.25	0.070	22.77
	CV	7.50	6.880	6.90















**UP 09453 : A New Wonder Variety Of Sugarcane**



UP 09453 is an early maturing, insect-pest & disease resistant high sugared and high yielder sugarcane variety developed by cross of Grl 28/92 X CoSe 92423 at Sugarcane Research Station, Gorakhpur (U.P.). The sugarcane variety has been identified for release and notification in North-Central & North-East Zones comprising Eastern Uttar Pradesh, Bihar, West Bengal and Assam during March, 2017 by Central Varietal Identification Committee, Indian Council of Agricultural Research (ICAR), Government of India.

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