

AS 42.1 Effect of genotypes and fertility levels on germination, tiller count, yield and juice quality of sugarcane

AS 42:		Agronomic evaluation of promising sugarcane genotypes							
Year of initiation		2012-13							
Design		FRBD							
Treatments		4 varieties from AVT							
		V ₁ : CoC 07336; V ₂ : CoA 08324; V ₃ : CoOr 08346 and V ₄ : Co 6907							
		3 fertilizer levels : 75, 100 and 125 % RDN							
Replication		3							
Recommended fertilizer dose		250:100:60 N :P ₂ O ₅ : K ₂ O kg /ha							
Plot size		6 x 4.8 m ²							
Date of planting		6.01.14							
Date of harvest		17.12.14							
Treatments	Germination % at 45 DAP	No of tillers (000/ha) at 90 DAP	No of tillers (000/ha) at 120 DAP	NMC (000/ha)	Cane yield (t/ha)	Juice Brix %	Juice Sucrose %	CCS %	CCS yield (t/ha)
Genotypes									
CoC 07336	50.74	76.97	74.43	72.61	76.90	18.11	15.32	10.37	7.99
CoA 08324	52.83	90.08	87.54	83.52	86.50	18.59	15.64	10.55	9.15
CoOr 8346	52.48	93.83	91.29	85.76	88.47	18.86	15.90	10.75	9.55
Co 6907	51.61	88.41	85.86	80.77	84.07	18.77	15.41	10.27	8.66
SEm ±	5.519	3.400	3.400	2.760	2.429	0.141	0.145	0.136	0.294
CD at 5 %	NS	9.972	9.972	8.096	7.124	0.413	0.425	NS	0.862
N levels									
75 %	54.52	91.40	88.856	83.87	86.80	18.68	15.83	10.73	9.36
100 %	51.29	92.29	89.750	85.07	87.86	18.80	15.62	10.47	9.21
125 %	49.94	78.27	75.733	73.05	77.29	18.27	15.25	10.25	7.93
SEm ±	4.780	2.945	2.966	2.391	2.104	0.122	0.126	0.188	0.255
CD at 5 %	14.018	8.636	8.636	7.011	6.170	0.357	0.368	NS	0.747

AS 42.2

Mean table

	N1	N2	N3	Mean
CoC 07336	65.59	88.08	77.03	76.90
CoA 08324	96.02	78.57	84.90	86.50
CoOr 8346	96.26	93.80	75.36	88.47
Co 6907	89.35	91.01	71.86	84.07
Mean	86.80	87.86	77.29	
	V	N	V x N	
Sem±	2.429	2.104	4.208	
CD at 5%	7.124	6.170	12.339	
CV	8.68			

The experiment was laid out in factorial randomized block design with three genotypes from AVT namely CoC 07336, Co A 08324 and CoOr 8346 along with one standard check *i.e.* Co 6907 on red laterite soil of the experimental farm of Sugarcane Research Station, Nayagarh. The soil was acidic (pH 5.33) in reaction with electrical conductivity of 0.206 dsm⁻¹. Available N content was in lower range (155 kg/ha), but the soil was medium in available P (19.6 kg/ha) and (K 164 kg/ha) content. The genotype CoOr 8346 produced the highest average cane yield of 88.47 t/ha with application of 100 % RDN and was closely followed by Co A 08324 (86.50 t/ha) and Co 6907 (84.07 t/ha). All these genotypes were statistically superior to CoC 07336 (76.90

t/ha). Among the four genotypes tried in the said experiment CoC 07336 produced the lowest average cane (76.90 t/ha) and CCS (7.99 t/ha) yield. comes into flowering during the month of October-November, hence is not suitable for Odisha condition.

AS 64:	Response of sugarcane crop to different plant nutrients in varied agro- climatic situations
Year of initiation	2012-13
Design	RBD
Treatments	13
Replication	3
Variety	Co Or 03151 (Sabita)
Recommended fertilizer dose	250:100:60 N: P ₂ O ₅ : K ₂ O kg /ha
Plot size	8x 4.8 m ²
Date of planting	25.2.2014
Date of harvest	28.12.2014

Treatment details:

T ₁	Control (no fertilizers or manures)
T ₂	N
T ₃	NP
T ₄	NPK
T ₅	NPK+S (60 kg elemental S/ha)
T ₆	NPK+ Zn (50 kg ZnSO ₄ /ha)
T ₇	NPK+ Fe (1 % FeSO ₄ foliar spray thrice in 1 week interval i.e. at 120, 127 and 135 DAP)
T ₈	NPK+ Mn (10 kg MnSO ₄ /ha)
T ₉	NPK+ S+ Zn
T ₁₀	NPK+ S+ Zn+ Fe
T ₁₁	NPK+ S+ Zn+ Fe+ Mn
T ₁₂	Soil test based fertilizer application (315:100:60 kg N: P ₂ O ₅ : K ₂ O + 60 kg elemental S/ha)
T ₁₃	FYM @ 20 t/ha

AS 64.1 Effect of different plant nutrients on yield parameters of sugarcane crop

Treatments		Germinat ion% at 35 DAP	No of tillers (000/ha)			Length of cane (cm)			Girth of cane at harvest (cm)
			90 DAP	120 DAP	180 DAP	120 DAP	180 DAP	Harvest	
T ₁	Control	38.1	51.0	59.9	47.8	79.1	111.3	156.3	1.79
T ₂	N	53.2	61.3	71.3	57.4	103.1	175.0	238.3	2.15
T ₃	NP	50.9	62.4	75.6	64.7	107.1	196.0	233.3	2.25
T ₄	NPK	56.1	79.9	82.6	78.0	122.8	219.0	242.0	2.39
T ₅	NPK+S	57.7	82.7	85.2	80.5	126.0	227.7	239.3	2.42
T ₆	NPK+ Zn	54.3	80.4	86.0	78.7	127.5	238.3	244.0	2.32
T ₇	NPK+ Fe	57.7	83.6	86.6	81.9	125.8	236.3	240.0	2.25
T ₈	NPK+ Mn	56.0	77.8	80.5	74.3	115.5	236.7	242.3	2.22
T ₉	NPK+ S+ Zn	57.4	82.7	88.6	80.7	136.5	238.7	246.7	2.55
T ₁₀	NPK+ S+ Zn+ Fe	57.1	83.9	89.3	80.9	152.5	241.7	248.7	2.48
T ₁₁	NPK+ S+ Zn+ Fe+ Mn	53.8	77.3	89.1	83.0	142.8	235.0	244.7	2.39
T ₁₂	Soil test based fert. Appln.	59.8	84.5	89.8	84.5	156.5	241.7	250.0	2.65
T ₁₃	FYM @ 20 t/ha	49.8	58.2	67.7	65.2	107.5	194.7	241.0	2.25
SEm ±		2.13	3.40	4.33	4.16	9.28	10.02	10.51	0.16
CD at 5 %		6.21	9.91	12.65	12.15	27.08	29.25	30.66	NS
CV%		6.30	7.31	8.56	9.03	12.03	7.46	7.12	10.72

AS 64.2 Effect of different plant nutrients on juice quality and yield of sugarcane

Treatments		Brix % 1 month prior to harvest	Brix % at harvest	CCS % at harvest	NMC (000/ha)	Cane yield (t/ha)	CCS (t/ha)
T ₁	Control	15.47	17.86	10.34	33.24	43.42	4.47
T ₂	N	16.13	18.04	10.76	45.04	58.00	6.25
T ₃	NP	15.73	17.94	10.90	49.78	67.33	7.36
T ₄	NPK	15.77	18.29	10.71	63.14	71.33	7.64
T ₅	NPK+S	16.23	18.71	10.76	64.06	75.63	8.14
T ₆	NPK+ Zn	15.53	17.76	11.06	63.88	76.00	8.42
T ₇	NPK+ Fe	15.67	18.20	10.83	66.95	72.78	7.87
T ₈	NPK+ Mn	16.13	18.41	10.69	55.34	69.33	7.40
T ₉	NPK+ S+ Zn	15.37	17.85	10.77	66.81	77.33	8.34
T ₁₀	NPK+ S+ Zn+ Fe	15.90	18.27	11.07	66.95	79.72	8.82
T₁₁	NPK+ S+ Zn+ Fe+ Mn	15.80	18.29	10.85	68.08	78.14	8.47
T ₁₂	Soil test based fert. Appln.	16.03	18.39	10.78	69.47	81.44	8.79
T ₁₃	FYM @ 20 t/ha	15.37	17.92	10.89	44.90	54.65	5.95
SEm ±		0.35	0.19	0.19	3.97	7.58	0.84
CD at 5 %		NS	0.55	NS	11.60	22.13	2.45
CV%		3.54	1.66	2.81	10.90	11.45	14.79

Soil test based fertilizer application (315:100:60 kg N: P₂O₅: K₂O + 60 kg elemental S/ha) resulted in higher number of tillers at different growth stages of sugarcane genotype “Sabita” leading to highest cane (81.44 t/ha) and CCS yield (8.79 t/ha). The length (250.0 cm) and girth (2.65 cm) of the canes at harvest were also the higher as compared to all other treatment combinations. Application of NPK+ S+ Zn+ Fe (cane yield of 79.72 and CCS yield of 8.82 t/ha), NPK+ S+ Zn+ Fe+ Mn (cane yield of 78.14 t/ha and CCS yield of 8.47t/ha) NPK+ S+ Zn (cane yield of 77.33 and CCS yield of 8.34 t/ha), were next in order. The crop responded well to micronutrient application.

AS 64.3 Effect of different plant nutrients on soil fertility status after harvest of sugarcane crop

Treatments		pH	EC (dsm ⁻¹)	OC (%)	Available (Kg/ha)				Available(ppm)		
					N	P	K	S	Fe	Mn	Zn
T ₁	Control	5.11	0.241	0.463	116.3	16.5	135.4	2.1	23.27	55.36	0.61
T ₂	N	5.31	0.225	0.501	146.6	22.6	143.6	2.5	22.00	58.21	0.55
T ₃	NP	5.32	0.251	0.472	140.3	26.4	148.4	2.0	23.20	69.85	0.52
T ₄	NPK	5.24	0.209	0.436	141.7	25.4	137.2	2.2	26.60	75.69	0.69
T ₅	NPK+S	5.12	0.201	0.448	153.0	23.6	149.2	2.9	22.25	57.30	0.76
T ₆	NPK+ Zn	5.16	0.189	0.511	145.0	24.3	165.9	2.3	25.01	55.61	0.84
T ₇	NPK+ Fe	5.20	0.212	0.466	150.6	28.6	158.3	1.6	24.80	61.23	0.76
T ₈	NPK+ Mn	5.28	0.186	0.501	149.3	27.6	153.8	1.9	24.11	67.56	0.81
T ₉	NPK+ S+ Zn	5.17	0.194	0.523	139.0	26.5	154.6	2.8	22.40	56.56	0.92
T ₁₀	NPK+ S+ Zn+ Fe	5.25	0.208	0.466	141.6	18.6	156.8	2.7	23.75	56.33	0.91
T ₁₁	NPK+ S+ Zn+ Fe+ Mn	5.21	0.183	0.420	145.5	22.6	166.2	2.5	25.30	60.38	0.88
T ₁₂	Soil test based fert Appln	5.23	0.197	0.429	185.5	25.6	177.5	2.8	26.75	56.33	0.72
T ₁₃	FYM @ 20 t/ha	5.28	0.208	0.431	130.7	18.8	139.6	2.0	24.61	50.33	0.68
Initial		5.26	0.226	0.451	190.7	29	239.3	3.6	28.03	67.59	0.59

The experimental soil was acidic in reaction with the soil pH ranging from 5.17 to 5.32

with the initial value of 5.26. The soil was low in organic carbon (0.420 to 0.511%), available N (116.3 kg/ha in control plot to 185.5 kg/ha with soil test based fertilizer application), S (1.6 to 2.9 kg/ha) and Zn (0.52 to 0.92 ppm). Available P and K were in medium range of soil fertility, whereas available Fe and Mn content of the soil were in higher range.

AS 66:	Priming of cane nodes for accelerating germination
Year of initiation	2012-13
Design	RBD
Treatments	6
Replication	4
Variety	Co Or 04152 (Raghunath)
Recommended fertilizer dose	250:100:60 kg N: P ₂ O ₅ :K ₂ O / ha
Plot size	6 x 4.8 m ²
Date of sowing	09.01.2014
Date of harvest	12.01.2014

AS 66.1 Effect of priming of cane nodes on germination and shoot count at various stages of cane growth

Treatments		Germination%			No of shoots (000/ha)			
		20 DAP	30 DAP	40 DAP	60 DAP	90 DAP	120 DAP	150 DAP
T ₁	Unprimed cane node	11.19	31.25	41.50	39.84	55.75	69.02	65.02
T ₂	Treating cane nodes in 50 ⁰ C hot water for 2 hrs	11.31	35.25	50.75	41.49	61.84	78.00	72.00
T ₃	Treating cane nodes in (50 ⁰ C) hot water urea solution(3%) for 2 hrs	11.65	35.20	51.07	49.83	67.87	81.75	75.75
T ₄	Priming of nodes in cattle dung (1): cattle urine (2) : water(5) ratio	11.45	40.15	51.13	51.39	68.48	82.75	76.75
T ₅	Conventional 3 bud sett planting	13.18	42.83	57.50	64.43	73.73	91.50	85.50
T ₆	Primed and sprouted cane nodes	12.90	41.45	55.25	61.02	66.90	89.17	83.17
SEm ±		0.464	1.407	2.575	3.949	2.962	2.413	2.517
CD at 5 %		1.400	4.239	7.758	11.899	8.924	7.271	7.583
CV%		7.78	7.47	10.06	15.39	9.01	5.88	6.59

AS 66.2 Effect of priming of cane nodes on yield parameters of cane

Treatments		No of shoots/clump				Length of cane (cm)	Girth of cane (cm)	Weight of cane (kg)
		60 DAP	90 DAP	120 DAP	150 DAP			
T ₁	Unprimed cane node	1.00	2.00	2.50	2.25	2.3	2.3	1.14
T ₂	Treating cane nodes in 50 ⁰ C hot water for 2 hrs	1.00	2.00	3.50	2.75	2.4	2.4	1.22
T ₃	Treating cane nodes in (50 ⁰ C) hot water urea solution(3%) for 2 hrs	1.00	3.00	3.75	3.00	2.4	2.5	1.26
T ₄	Priming of nodes in cattle dung (1): cattle urine (2) : water(5) ratio	1.75	3.00	3.75	2.75	2.5	2.5	1.29
T ₅	Conventional 3 bud sett planting	2.00	2.75	4.50	3.25	2.7	3.0	1.30
T ₆	Primed and sprouted cane nodes	2.00	3.00	4.00	3.50	2.7	2.9	1.38
SEm ±		0.102	0.209	0.321	0.242	0.087	0.124	0.073
CD at 5 %		0.308	0.630	0.966	0.728	0.263	0.375	NS
CV%		14.00	15.94	17.49	16.56	6.97	9.56	11.62

AS 66.3 Effect of priming of cane nodes on juice quality and yield of cane

Treatments		Brix %	Pol %	Purity %	NMC (000/ha)	Cane yield (t/ha)	CCS (t/ha)
T ₁	Unprimed cane node	18.42	15.58	86.83	50.75	60.56	6.38
T ₂	Treating cane nodes in 50°C hot water for 2 hrs	17.35	15.38	90.83	62.06	79.18	8.42
T ₃	Treating cane nodes in (50°C) hot water urea solution(3%) for 2 hrs	18.79	15.61	85.28	65.25	81.90	8.54
T ₄	Priming of nodes in cattle dung (1): cattle urine (2) : water(5) ratio	18.80	15.91	87.24	75.75	82.16	8.83
T ₅	Conventional 3 bud sett planting	18.40	16.28	90.66	82.75	86.23	9.45
T ₆	Primed and sprouted cane nodes	18.94	15.20	82.77	79.25	83.85	8.64
SEm ±		0.392	0.429	3.558	2.279	4.002	0.567
CD at 5 %		NS	NS	NS	6.866	12.058	1.709
CV%		4.25	5.48	8.15	7.17	12.31	13.54

Out of the six treatments, conventional method of planting three budded sugarcane setts proved to be the best with highest number of net millable canes (82.75 th/ha), cane (86.23t/ha) and CCS yield (9.45t/ha). The treatment next in order was T₆ where primed and sprouted cane nodes were planted which could produce NMC of 79.25 ('000 /ha) with cane and CCS yield of 83.85 and 8.64 t/ha, respectively. Planting of primed cane nodes in cattle dung (1): cattle urine (2): water (5) ratio could produce NMC of 75.75 ('000 /ha) cane and CCS yield of 82.16 and 8.83 t/ha, respectively. These three treatments were at par and significantly superior to other treatment combinations. The higher yield parameters i.e. number of shoots/ha, number of shoots per clump, length and girth of cane in the above mentioned treatments were the factors of higher cane and CCS yield. However, the juice quality was not affected by various priming effects. Planting of unprimed cane nodes (T₁) was the lowest yielder (cane and CCS yield of 60.56 and 6.38 t/ha, respectively).

AS 68:	Impact of integrated application of organics and inorganics in improving soil health and sugarcane productivity
Year of initiation	2014-15
Design	RBD
Treatments	9
Replication	3
Variety	Co Or 08 346
Recommended fertilizer dose	250-100-60 kg N P ₂ O ₅ K ₂ O/ha
Plot size	6m x 6 row x 0.8m
Date of sowing	11.01.2014
Date of harvest	11.12.2014

Treatments	Sugarcane (Plant crop)	Ratoon – I	Ratoon – II
T ₁	50% RDF	Application of trash at 10 tonnes/ha + 50 % RDF	Application of trash at 10 tonnes/ha + 50 % RDF
T ₂	100% RDF	Application of trash at 10 tonnes/ha + 100 % RDF	Application of trash at 10 tonnes/ha + 100 % RDF
T ₃	Soil test based fert. application (NPK)	Application of trash at 10 tonnes/ha+ soil test basis fert (NPK) application	Application of trash at 10 tonnes/ha+ soil test basis fert (NPK) application
T ₄	Application of FYM/Compost @ 20t/ha+ 50% RDF	Application of FYM/Compost @ 20t/ha+ 50% RDF (inorganic source)	Application of FYM/Compost @ 20t/ha+ 50% RDF (inorganic source)
T ₅	Application of FYM/Compost @ 20t/ha+ 100% RDF	Application of FYM/Compost @ 20t/ha+ 100% RDF (inorganic source)	Application of FYM/Compost @ 20t/ha+ 100% RDF (inorganic source)
T ₆	Application of FYM/Compost @ 20t/ha+ Soil test based fert. application (NPK)	Application of FYM/Compost @ 20t/ha+ inorganic nutrient application based on soil test(rating chart)	Application of FYM/Compost @ 20t/ha+ inorganic nutrient application based on soil test(rating chart)
T ₇	Application of FYM/Compost @ 10t/ha+(Azotobactor/ Acetobactor +PSB)+50% RDF	Application of FYM/Compost @ 10t/ha+ biofertilizer (Azotobactor/ Acetobactor + PSB) +50% RDF (inorganic source)	Application of FYM/Compost @ 10t/ha+ biofertilizer (Azotobactor/ Acetobactor + PSB) +50% RDF (inorganic source)
T ₈	Application of FYM/Compost @ 10t/ha+(Azotobactor/ Acetobactor +PSB)+100% RDF	Application of FYM/Compost @ 10t/ha+ biofertilizer (Azotobactor/ Acetobactor + PSB) +100% RDF (inorganic source)	Application of FYM/Compost @ 10t/ha+biofertilizer (Azotobactor / Acetobactor + PSB) +100% RDF (inorganic source)
T ₉	Application of FYM/Compost @ 10t/ha + Azotobactor/ Acetobactor + PSB + Soil test based fert application (NPK)	Application of FYM/Compost @ 10t/ha + biofertilizer (Azotobactor/ Acetobactor + PSB) + Soil test based fert application (NPK)	Application of FYM/Compost @ 10t/ha+ biofertilizer (Azotobactor/ Acetobactor + PSB) + Soil test based fert application (NPK)

AS 68.1 Impact of integrated application of organics and in-organics on germination and shoot count at various stages of cane growth

Treatments		Germination %		No of shoots (000/ha)		Length of cane (cm)	Girth of cane (cm)	Weight of cane (kg)	Brix %		NMC (000/ha)	Cane yield (t/ha)
		30 DAP	45 DAP	120 DAP	150 DAP				10 MAP	12 MAP		
T ₁	50% RDF	33.00	45.23	62.64	63.79	2.7	1.70	1.29	14.3	16.4	66.79	69.67
T ₂	100% RDF	41.30	46.97	65.16	68.46	2.9	2.20	1.33	14.7	16.8	71.46	83.50
T ₃	Soil test based fert. application (NPK)	42.76	51.76	70.33	72.33	3.1	2.33	1.55	15.5	17.6	75.33	87.67
T ₄	Application of FYM/Compost @ 20t/ha+ 50% RDF	44.30	53.30	71.08	72.67	2.4	2.43	1.30	15.3	16.5	76.67	79.77
T ₅	Application of FYM/Compost @ 20t/ha+ 100% RDF	43.82	52.82	70.47	74.67	2.7	2.20	1.29	15.3	16.4	78.67	81.66
T ₆	Application of FYM/Compost @ 20t/ha+ Soil test based fert. application (NPK)	46.04	56.90	71.97	74.63	2.9	2.30	1.31	15.0	17.1	78.63	83.17
T ₇	Application of FYM/Compost @ 10t/ha+(Azotobactor+PSB)+50% RDF	47.39	58.43	78.13	79.67	3.3	2.33	1.58	16.0	17.4	84.67	95.91
T ₈	Application of FYM/Compost @ 10t/ha+(Azotobactor+PSB)+100% RDF	45.85	57.91	79.86	82.19	3.3	2.53	1.50	15.7	17.8	87.19	96.33
T ₉	Application of FYM/Compost @ 10t/ha + Azotobactor + PSB + Soil test based fert application (NPK)	47.95	56.78	81.06	83.80	3.2	2.67	1.59	15.9	17.7	88.80	96.98
SEm ±		1.858	2.577	2.833	2.455	0.174	0.164	0.062	0.358	0.423	2.455	5.606
CD at 5 %		5.571	7.724	8.493	7.359	0.520	0.492	0.186	NS	NS	7.359	16.804
CV%		7.38	8.37	6.79	5.69	10.20	12.35	9.55	4.05	4.29	5.40	11.27

Application of FYM/Compost @ 10t/ha+(Azotobactor+PSB)+50% RDF (T₇), Application of FYM/Compost @ 10t/ha+(Azotobactor+PSB)+100% RDF (T₈) and Application of FYM/Compost @ 10t/ha + Azotobactor + PSB + Soil test based(NPK) fertilizer application (T₉) recorded higher percentage of germination at 45 DAP i.e. 58.43, 57.91 and 56.78%, respectively. These treatments subsequently performed better than other treatment combinations leading to higher yield parameters and cane yield. The length and girth of the cane were also higher 3.3 & 2.33 cm in T₇, 3.3 & 2.53 cm in T₈ and 3.2 & 2.67 cm in T₉, respectively. The NMC and Cane yield were 84.67'000 & 95.91 t/ha in T₇, 87.19'000 & 96.33 t/ha in T₈ and 88.80'000 & 96.98 t/ha in T₉, respectively. This exhibits the positive effect of organic manures and bio fertilizers on cane yield.

AS 68.3 Impact of integrated application of organics and in-organics on soil fertility status

Treatments		BD (g cm ⁻³)	pH	EC (dsm ⁻¹)	OC%	Available Nutrient (kg/ha)		
						N	P	K
T ₁	50% RDF	1.36	5.6	0.201	0.452	227	15.5	125.8
T ₂	100% RDF	1.34	5.5	0.233	0.446	230	21.3	136.3
T ₃	Soil test based fert. application (NPK)	1.35	5.6	0.301	0.468	246	20.4	138.4
T ₄	Application of FYM/Compost @ 20t/ha+ 50% RDF	1.39	5.8	0.323	0.491	251	22.3	127.8
T ₅	Application of FYM/Compost @ 20t/ha+ 100% RDF	1.40	5.9	0.331	0.501	249	23.8	129.6
T ₆	Application of FYM/Compost @ 20t/ha+ Soil test based fert. application (NPK)	1.41	6.2	0.336	0.511	248	22.6	135.2
T ₇	Application of FYM/Compost@ 10t/ha +(Azotobactor+PSB) + 50% RDF	1.42	5.9	0.333	0.523	255	24.3	132.6
T ₈	Application of FYM/Compost@ 10t/ha +(Azotobactor+PSB)+100% RDF	1.44	6.3	0.311	0.521	253	25.6	133.5
T ₉	Application of FYM / Compost @ 10t/ha + Azotobactor + PSB + Soil test based fert application (NPK)	1.43	6.2	0.321	0.513	252	24.8	135.6

The soil physico-chemical parameters like BD, pH , EC, organic carbon content as well as available N, P and K content exhibited marked improvement upon application of organic source of plant nutrients.

**ALL INDIA CO-ORDINATED RESEARCH PROJECT ON SUGARCANE
SUGARCANE RESEARCH STATION
(ORISA UNIVERSITY OF AGRICULTURE & TECHNOLOGY)
AT: PANIPOILA , PO :BALUGAON , Dist : NAYAGARH**

No. 151 / SRS Dt. 21 .05.2015

From :

Dr. P. K. Nayak, Ph.D.
Officer-in-Charge

To

The Principal Investigator (Crop Production)
AICRP on Sugarcane
Indian Institute of Sugarcane Research,
Lucknow-226002 (UP)

Sub : Submission of data sheet 2014-15 (Crop Production)

Ref. No. F. No. 17-33/2015-PCS Dated: May 15, 2015 of PC, AICRP(S), IISR, Lucknow

Sir,

In inviting a kind reference to the subject cited above I am herewith submitting the data sheet 2014-15 of crop Production discipline of AICRP on Sugarcane, S.R.S. Nayagarh along with soft copy for your kind perusal and inclusion in the Annual Report.

This is for favour of your kind information and necessary action

With regards

yours faithfully

Encl. : As above

Sd/- P.K.Nayak
OFFICER-IN-CHARGE
AICRP(S) S.R.S., NAYAGARH

Memo No. **152** / SRS Dt **21.05. 2015**

Copy along with data sheet and C.D. submitted to the Project Coordinator, AICRP(S), IISR , Lucknow-226002 ,UP for favour of information and necessary action

Sd /- P.K.Nayak
OFFICER-IN-CHARGE

