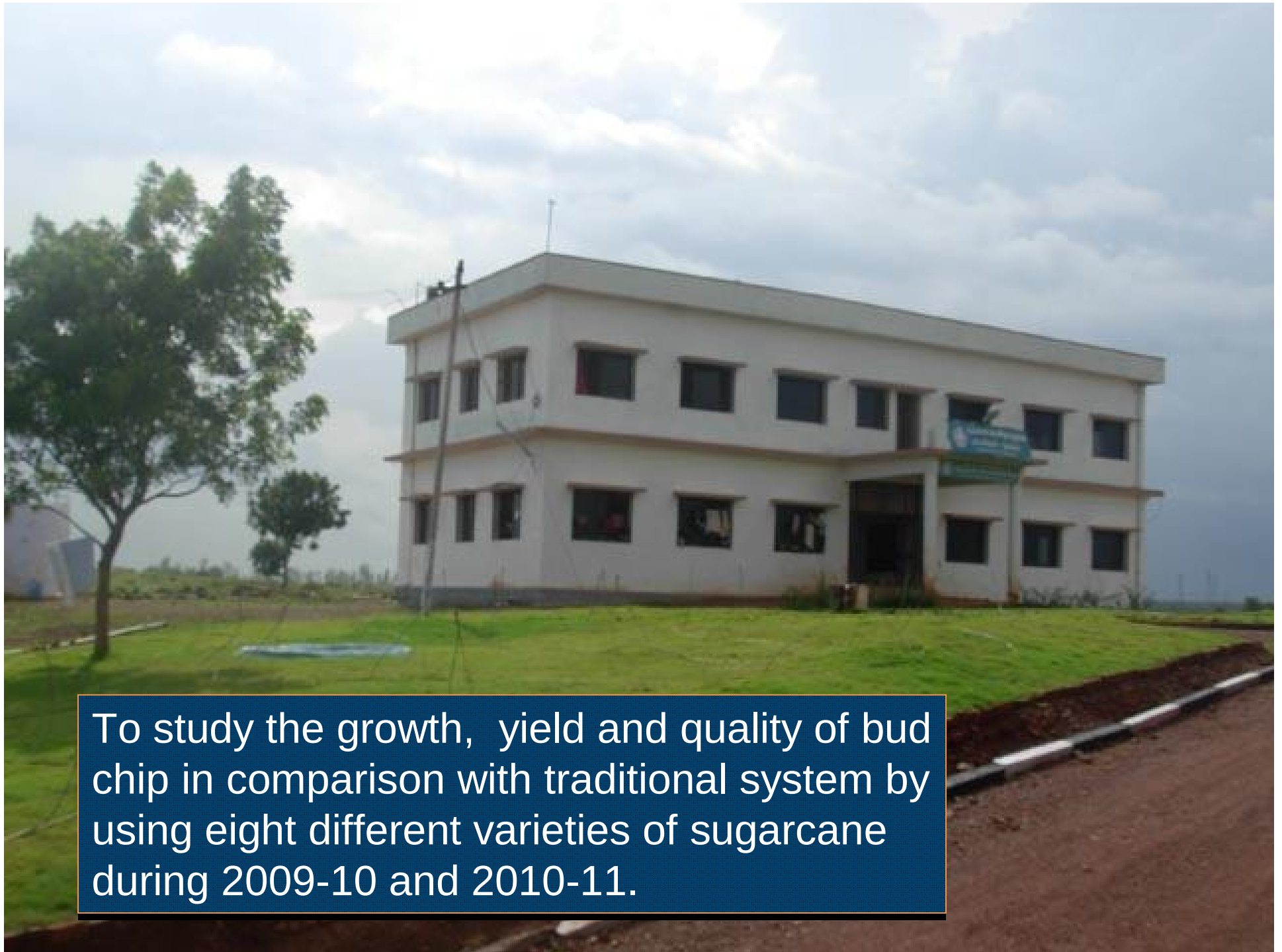


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Bud Chip Technology in Sugarcane

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To study the growth, yield and quality of bud chip in comparison with traditional system by using eight different varieties of sugarcane during 2009-10 and 2010-11.

WATER

Erratic rainfall

Abnormal summer temperatures

Poor soils

Labour availability



Paired row method



Pit method











Physiological & growth factors on bud chip crop

Varieties	Tiller (000/ha)		NMC (000/ha)		Plant Ht (Cm)	
	Sett	Bud chip	Sett	Bud chip	Sett	Bud chip
Co 86032	87.73	89.50	78.10	83.05	315.00	328.00
Co 8014	69.73	72.70	66.20	68.18	285.00	291.33
Co 99004	63.20	66.24	61.20	43.41	308.00	316.66
Co 99006	73.36	76.90	68.05	70.00	300.60	298.66
Co 94008	72.36	76.20	65.58	71.00	301.00	303.30
97 R 401	63.63	64.23	52.92	55.66	304.33	323.00
97 R 129	72.36	78.90	60.58	63.00	289.33	294.66
83 A 30	76.30	78.22	64.83	70.66	340.66	334.20
Mean	72.33	75.36	64.68	65.62	305.49	311.23
CV (%)	4.07		4.22		7.86	
CD(0.05) Planting	2.33		2.141		5.44	
CD(0.05) Varieties	4.66		4.282		10.89	
Planting x Varieties	NS		NS		NS	

Leaf Area Index of different Sugarcane clones

	Sett	Bud chip
Co 86032	4.96	<u>5.62</u>
Co 8014	3.89	4.02
Co 99004	3.36	3.48
Co 99006	4.86	4.90
Co 94008	4.96	5.28
97 R 129	4.38	4.96
97 R 401	5.10	5.48
83 A 30	4.92	5.01

Physiological & growth factors on bud chip crop

Varieties	Photosynthetic rate		Dry matter 180 DAP	
	(μ mol/Co ₂ /m ² /sec)		(kg/plant)	
	Sett	Bud chip	Sett	Bud chip
Co 86032	20.3	21.2	0.32	0.33
Co 8014	18.6	18.9	0.28	0.29
Co 99004	19.6	19.6	0.27	0.24
Co 99006	22.6	22.9	0.30	0.29
Co 94008	18.6	17.8	0.31	0.34
97 R 401	21.4	22.8	0.42	0.44
97 R 129	19.4	18.8	0.37	0.38
83 A 30	18.6	19.4	0.32	0.33
Mean	19.89	20.18	0.32	0.33
CV (%)	8.02		5.26	
CD(0.05) Planting	0.32		0.002	
CD(0.05) Varieties	0.24		0.038	
Planting x Varieties	NS		NS	

Physiological & growth factors on bud chip crop

Varieties	Cane girth (cm)		Single cane wt (kg)	
	Sett	Bud chip	Sett	Bud chip
Co 86032	3.1	3.12	2.28	2.32
Co 8014	2.81	2.91	1.68	1.74
Co 99004	2.94	2.88	1.96	1.98
Co 99006	3.05	3.11	1.72	1.78
Co 94008	3.14	3.16	1.92	2.01
97 R 401	3.32	<u>3.36</u>	2.3	2.32
97 R 129	2.95	3.03	1.9	2.04
83 A 30	3.05	3.14	2.28	<u>2.36</u>
Mean	3.045	3.08875	2.005	2.06875
CV(%)	9.62		7.05	
CD(0.05) Planting	1.633		0.097	
CD(0.05) Varieties	3.26		0.195	
Planting x Varieties	NS		NS	

Yield & quality of bud chip crop

Varieties	Sucrose (%)		Yield (t/ha)	
	Sett	Bud chip	Sett	Bud chip
Co 86032	19.4	<u>19.4</u>	139.3	<u>148.56</u>
Co 8014	18.93	19	127.33	134.83
Co 99004	19.32	19.1	125	121.66
Co 99006	18.86	18.8	129.33	138.66
Co 94008	18.96	19.2	124.33	127
97 R 401	18.63	18.6	130	129.33
97 R 129	18.6	18.7	117	133
83 A 30	18.9	18.8	130	138
Mean	18.95	18.95	127.79	133.88
CV (%)	1.62		3.89	
CD(0.05) Planting	NS		2.99	
CD(0.05) Varieties	0.36		5.99	
Planting x Varieties	NS		NS	



Thank 'U'





1:1 Sugarcane and Ginger intercrop



1:2 Sugarcane and Ginger intercrop









