

Part I
Weather and Season Report (Sugarcane crop)

Total rainfall of 661.3 mm (83.81 % of Normal) was received in 40 rainy days during 2014 at Akola. Maximum rains (434.6 mm) were received during July, August and September. Normal Relative humidity during grand growth period has good effect on growth rate of sugarcane crop. Maximum and Minimum temperature during maturity phase was slightly less than normal. It has no significant effect on juice quality and recovery of sugarcane. Overall sugarcane yield was satisfactory.

The medium incidence of early shoot borer was observed during April to June due to high temperature. The medium incidences of aphids were observed during August. Acute incidence of mealy bug and scale insect was observed during October and November. The incidence of mealy bug and scale insect were in traces during October and November.

Medium incidence of Pokkah boeng disease was observed. Other diseases like smut and grassy shoot were not observed during the season.

Table 1: Weekly Weather data for the year 2014 recorded at Meteorological Observatory Department of Agronomy Dr. PDKV., Akola

		Actual				2014								Normal				1971-2010		
MW	Dates	T MAX (°C)		T MIN (°C)		BSH (hrs)		WS (km/hr)		RH I (%)		RH II (%)		Evap (mm)		RF (mm)		CRF (mm)	Rainy Days	
		N	A	N	A	N	A	N	A	N	A	N	A	N	A	N	A		N	A
1	1-7 Jan	28.8	29.0	11.0	13.0	8.2	4.8	4.4	1.0	71	80	31	31	4.2	4.4	2.8	0.0	0.0	0.2	0.0
2	8-14	29.3	28.5	11.7	13.9	8.3	4.6	4.4	2.3	71	80	30	34	4.4	3.7	3.3	0.0	0.0	0.2	0.0
3	15-21	30.0	29.2	12.0	15.8	8.6	3.4	4.5	2.0	68	76	28	33	4.9	4.7	0.7	0.4	0.4	0.1	0.0
4	22-28	30.6	28.9	12.0	14.5	8.8	3.3	4.6	1.9	65	81	26	31	5.2	4.2	0.9	0.0	0.4	0.1	0.0
5	29-4 Feb	31.0	30.0	12.6	11.0	8.8	8.4	4.9	1.7	62	59	25	16	5.5	5.2	3.0	0.0	0.4	0.2	0.0
6	5-11	31.4	31.9	12.7	14.0	8.8	7.6	5.0	1.7	59	60	23	20	5.9	5.3	3.7	0.0	0.4	0.3	0.0
7	12-18	32.7	29.4	14.4	12.7	9.0	7.4	5.4	2.3	55	64	22	24	6.6	6.7	0.1	0.0	0.4	0.0	0.0
8	19-25	33.4	31.7	14.5	16.2	9.1	5.9	5.7	2.0	54	64	21	29	7.3	6.2	2.5	2.0	2.4	0.2	0.0
9	26-4 Mar	35.0	30.2	15.7	15.3	9.5	7.5	6.1	2.8	50	76	18	25	8.2	5.7	4.1	34.7	37.1	0.3	3.0
10	5-11	35.9	28.9	17.3	16.5	9.2	6.0	6.1	3.1	46	83	20	29	8.8	4.4	5.2	8.6	45.7	0.3	2.0
11	12-18	37.0	35.3	18.1	18.9	9.1	8.7	6.3	2.2	45	70	18	16	9.2	6.5	2.4	7.9	53.6	0.3	1.0
12	19-25	38.4	37.8	19.3	20.0	9.2	8.7	6.4	2.8	39	43	15	11	10.4	9.7	0.6	0.0	53.6	0.1	0.0
13	26-1 Apr	39.0	39.8	20.4	23.7	9.2	8.0	6.9	2.8	37	35	15	11	11.2	9.5	2.2	0.0	53.6	0.2	0.0
14	2-8 Apr	40.0	39.9	21.7	22.2	9.4	8.0	7.3	3.1	37	30	14	9	11.7	10.2	1.0	0.0	53.6	0.1	0.0
15	9-15	40.8	39.3	23.1	21.8	9.5	7.5	8.4	3.5	35	38	14	10	12.9	10.6	0.4	0.0	53.6	0.1	0.0
16	16-22	41.6	40.4	24.1	23.8	9.7	8.2	8.6	3.5	36	52	14	22	13.9	10.7	0.5	4.2	57.8	0.1	1.0
17	23-29	42.3	41.5	25.4	24.2	9.8	8.7	9.0	3.8	37	38	15	11	14.7	12.7	0.5	0.0	57.8	0.1	0.0
18	30- 6 May	42.6	42.6	26.6	25.5	9.4	8.3	10.5	3.2	39	38	15	11	15.5	11.7	0.8	6.4	64.2	0.1	1.0
19	7-13	42.6	39.3	27.1	25.8	9.7	6.6	12.2	6.4	42	56	17	21	16.2	10.8	1.3	0.8	65.0	0.1	0.0
20	14-20	42.5	41.2	27.7	26.5	9.4	7.5	14.2	5.1	47	46	19	21	16.8	11.7	2.8	0.0	65.0	0.4	0.0
21	21-27	42.1	43.3	27.8	27.2	9.5	7.2	15.1	6.7	50	47	20	16	16.9	13.1	3.8	3.2	68.2	0.4	0.0
22	28-3 Jun	41.7	43.6	27.8	28.3	9.4	8.3	15.2	7.1	53	48	23	21	16.2	11.8	6.3	4.5	72.7	0.4	1.0
23	4-10	40.2	43.0	26.9	29.6	8.4	6.5	15.2	10.9	62	49	30	26	14.0	16.6	16.8	0.0	72.7	1.0	0.0
24	11-17	38.0	39.3	25.7	25.3	7.1	8.5	13.4	10.4	69	66	40	28	11.1	13.2	43.6	22.5	95.2	1.7	2.0
25	18-24	35.5	37.2	25.0	26.8	5.8	4.7	14.2	14.6	74	63	48	31	9.2	14.3	43.5	1.5	96.7	2.0	0.0
26	25-1Jul	33.8	38.2	24.3	26.8	4.8	5.2	12.8	15.0	80	61	55	31	7.4	14.3	43.4	1.7	98.4	2.2	0.0

Table 1: Weekly Weather data for the year 2014 recorded at Meteorological Observatory Department of Agronomy Dr. PDKV., Akola

		Actual				2014								Normal				1971-2010				
Weeks	Dates	T MAX (°C)		T MIN (°C)		BSH (hrs)		WS (km/hr)		RH I (%)		RH II (%)		Evap (mm)		RF (mm)		CRF (mm)	Rainy Days			
		N	A	N	A	N	A	N	A	N	A	N	A	N	A	N	A		N	A		
27	2-8	33.2	36.4	24.0	26.3	4.8	4.1	12.0	12.5	81	74	58	44	6.5	11.9	39.4	1.4	99.8	2.2	0.0		
28	9-15	32.3	35.1	23.8	24.7	3.8	2.8	11.2	10.0	83	84	60	51	5.5	6.8	42.8	48.6	148.4	2.5	1.0		
29	16-22	31.9	30.7	23.6	23.9	4.0	1.5	10.4	8.8	84	88	63	70	5.2	3.8	52.8	45.8	194.2	2.4	6.0		
30	23-29	31.3	28.2	23.3	22.6	4.0	1.2	10.8	11.4	86	90	64	68	4.8	4.7	43.4	194.2	388.4	2.6	3.0		
31	30-5 Aug	30.9	31.6	23.3	24.2	3.5	3.2	10.6	7.6	86	89	67	66	4.6	6.0	49.6	16.4	404.8	2.4	1.0		
32	6-12	29.9	32.2	23.0	23.6	3.2	5.9	10.9	11.9	88	87	70	48	4.1	8.3	61.0	13.7	418.5	2.8	2.0		
33	13-19	30.4	33.6	23.0	23.6	4.0	6.9	12.4	9.5	87	89	67	46	4.5	7.1	35.9	6.9	425.4	2.0	2.0		
34	20-26	30.4	33.8	22.8	23.6	4.1	5.6	11.9	1.9	87	92	67	57	4.3	4.1	42.5	28.9	454.3	1.9	4.0		
35	27-2 Sep	30.5	29.1	22.7	22.4	4.2	2.1	9.3	4.1	87	94	66	81	4.6	5.0	42.4	73.6	527.9	2.1	5.0		
36	3-9	31.0	28.8	22.5	22.7	5.3	3.3	8.6	8.7	87	93	62	65	5.3	7.0	33.6	109.2	637.1	1.5	3.0		
37	10-16	32.1	30.3	22.4	22.6	6.6	4.2	8.0	7.3	85	88	57	65	5.1	5.7	22.0	0.7	637.8	1.1	0.0		
38	17-23	32.9	32.5	22.4	23.1	6.8	6.0	6.4	6.4	84	90	55	56	5.2	5.2	23.7	0.5	638.3	1.4	0.0		
39	24-30	33.5	34.5	22.1	20.7	7.3	8.5	5.1	1.0	84	81	50	37	5.0	4.2	24.4	2.0	640.3	1.4	0.0		
40	1-7 Oct	33.7	36.5	21.2	21.1	7.6	7.4	4.8	1.4	82	73	47	29	5.4	5.2	23.4	0.0	640.3	1.1	0.0		
41	8-14	34.0	36.8	19.8	20.9	8.1	5.6	4.5	1.7	78	66	40	26	5.3	5.4	13.1	0.0	640.3	0.7	0.0		
42	15-21	33.7	34.5	18.3	21.8	8.2	5.6	4.6	1.4	76	76	37	37	5.3	5.6	6.1	0.0	640.3	0.4	0.0		
43	22-28	33.1	31.9	16.8	18.0	8.3	4.3	4.4	1.1	74	77	34	37	5.3	4.0	7.6	0.0	640.3	0.4	0.0		
44	29-4 Nov	32.7	33.8	16.0	15.9	8.4	7.9	4.1	1.3	73	68	32	21	5.3	4.7	2.3	0.0	640.3	0.2	0.0		
45	5-11	32.3	33.5	15.2	16.6	8.4	6.5	3.9	1.4	71	69	32	28	5.1	5.2	3.0	0.0	640.3	0.2	0.0		
46	12-18	31.6	30.0	14.6	20.4	8.3	3.2	3.9	2.2	73	87	32	46	4.8	3.5	5.3	20.1	660.4	0.2	2.0		
47	19-25	31.0	31.7	13.3	12.9	8.4	7.4	3.7	0.9	72	72	30	16	4.6	4.2	7.7	0.0	660.4	0.3	0.0		
48	26-2 Dec	30.5	32.2	12.8	12.4	8.4	7.2	3.6	0.6	71	75	32	15	4.4	3.6	5.5	0.0	660.4	0.3	0.0		
49	3-9	30.0	30.8	11.9	10.9	8.4	8.3	3.8	0.9	71	73	30	18	4.3	4.4	1.0	0.0	660.4	0.1	0.0		
50	10-16	29.6	29.5	10.9	14.4	8.4	4.7	3.6	1.5	71	74	28	33	4.2	4.6	0.8	0.9	661.3	0.1	0.0		
51	17-23	29.5	26.4	10.8	6.9	8.5	8.3	3.8	1.6	70	71	29	16	4.1	5.0	0.9	0.0	661.3	0.1	0.0		
52	24-31	29.1	28.6	11.1	8.3	8.3	8.6	4.5	1.5	71	69	30	16	4.2	5.2	2.6	0.0	661.3	0.2	0.0		
										Total RF January to Dec							661.3			40		
										Total RF June to Dec								593.1			32	

AGRONOMY

Technical Programme for the Year 2014-15 (Approved by AICRP (Sugarcane))

1. **AS-42** : Agronomic evaluation of promising sugarcane varieties. .**
2. **AS-64** : Response of Sugarcane crop to different plant nutrients in varied agro-ecological situations. **
3. **AS-66** : Priming of cane node for accelerating germination**
4. **AS-68** : Impact of integrated application of organics and inorganics in improving soil health and sugarcane productivity.

Note : ** Due shortage of water for irrigation, these experiments could not be conducted during 2012-13 and 2013-14, and not planned during 2014-15 as one year data is not sufficient for conducting the results (At Workshop).

Technical Programme for the Year 2015-16 (Approved by AICRP (Sugarcane) and implemented at Akola Centre

1	Use of plant growth regulators (PGRs) for enhanced yield and quality of sugarcane
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A REPORT
OF
THE RESEARCH WORK DONE
ON
SUGARCANE
DURING 2014-15
Submitted to
ALL INDIA COORDINATED RESEARCH
PROJECT ON SUGARCANE



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