

**SUGARCANE RESEARCH STATION:: ASSAM AGRICULTURAL UNIVERSITY::
BURALIKSON-785 618:: P.O. BARUABAMUNGAON:: GOLAGHAT :: ASSAM**

(Through the Chief Scientist, Sugarcane Research Station, Buralikson)

Memo No. AAU/ SRS/ Tech-1/

/dated

To
The Principal Investigator
Crop Protection-AICRP(S)
Sugarcane Breeding Institute
Coimbatore-641007
Tamil Nadu

Sub: AICRP (S) data (2015-16) for crop protection (Plant Pathology), Buralikson center, reg :

Sir,

I am sending herewith the Annual Technical Report of Crop Protection (Plant Pathology) under AICRP on sugarcane for the year 2015-16 from Sugarcane Research Station, Buralikson for your kind perusal and necessary action please.

With kind regards

Your's faithfully

(Devanushi Dutta)
Assistant Pathologist
dated

No.

Copy to:
The Project Coordinator,
AICRP on Sugarcane
Indian Institute of Sugarcane Research
Lucknow, P.O. Dilkhusa
UP- 226 002

Your's faithfully

(Devanushi Dutta)
Assistant Pathologist

**ALL INDIA COORDINATED RESEARCH PROJECT
ON SUGARCANE**



**TECHNICAL REPORT
(2015-16)**

**CROP PROTECTION
(Plant Pathology)**

**Sugarcane Research Station
Assam Agricultural University
Buralikson-785 618
ASSAM**

PLANT PATHOLOGY

Experiment No. 1. PP 17 A. Evaluation of zonal varieties for resistance to red rot

An experiment was laid out to find out sources of resistance in sugarcane varieties/genotypes against red rot. For this purpose 25 varieties were raised starting from 1st week of April, 2015. The canes were inoculated with spores of 7 day old cultures of red rot isolate 'CF 07 and CF 08'. Inoculation was done by both plug and nodal method during second week of August, 2015. Evaluation of the canes was done 60 days after inoculation. The findings are presented in Table 1.

The disease scoring of the inoculated cane genotypes revealed that no genotype showed resistant reaction to the red rot isolate. But the genotype CoLK 12207 and CoSe 11453 showed resistance reaction to both the isolates in nodal method but moderately resistance to CF 08 isolate in plug method. CoP 9301 showed susceptibility to both the isolates in Nodal method but moderately susceptible to CF 07 in Plug method. Other varieties showed moderately resistance reaction to both the isolates.

Table 1: Evaluation of Sugarcane varieties/genotypes against red rot

SI No.	Variety/Genotype	Reaction to Red Rot					
		CF 07			CF 08		
		Plug method	Reaction	Nodal method	Plug method	Reaction	Nodal method
IVT-Early							
1	CoLK 12207	2.0	R	R	2.20	MR	R
2	CoLK 12208	2.45	MR	R	3.00	MR	R
3	CoP 12436	2.55	MR	R	2.95	MR	R
4	CoP 12437	3.60	MR	R	3.20	MR	R
5	CoSe 12451	3.56	MR	R	3.45	MR	R
AVT- Early- I Plant							
6	CoP 11436	2.65	MR	R	2.50	MR	R
7	CoP 11437	2.50	MR	R	2.65	MR	R
8	CoP 11438	3.40	MR	R	3.10	MR	R
9	CoSe 11451	3.55	MR	R	3.75	MR	R
IVT- Midlate							
10	CoLk 09204	2.46	MR	R	3.20	MR	R
11	CoLK 11209	3.52	MR	R	3.45	MR	MR
12	CoP 12438	4.55	MS	R	4.20	MR	R
13	CoP 12439	3.90	MR	R	3.80	MR	R
14	CoSe 12452	3.86	MR	R	3.55	MR	R
15	CoSe 12453	3.45	MR	R	3.00	MR	R
AVT- Midlate I Plant							
16	Bo 155	3.51	MR	R	3.60	MR	R
17	CoSe 11453	2.00	R	R	2.29	MR	R
18	CoSe 11454	3.25	MR	R	3.80	MR	R
19	CoSe 11455	3.45	MR	R	3.75	MR	R
AVT (Midlate) II Plant							

20	CoSe 10451	3.65	MR	R	3.70	MR	R
21	CoSe 10452	3.58	MR	R	3.55	MR	R
22	CoSe 10453	3.45	MR	R	3.40	MR	R
Standard							
23	CoP 9301	4.50	MS	S	6.20	S	S
24	CoSe 95422	5.20	MS	R	5.50	MS	R
25	Bo 130	3.00	MR	R	4.00	MR	R

PP 22. Survey of sugarcane diseases naturally occurring in the area on important sugarcane varieties.

The survey programme was conducted in two districts of Assam viz., Dhemaji and Sonitpur, with five and two locations respectively in each district. Sugarcane was newly introduced in the areas under Tribal Welfare Programme where the survey was conducted. As such no major or minor disease was found in these areas except leaf spots. The symptoms of the leaf spots showed it to be ring spot caused by *Leptosphaeria sacchari*. The extent of the diseases was less than 5%. The varieties grown in the surveyed area were collected from SRS, Buralikson under the Tribal Welfare Programme viz., *Borak*, *Dhansiri* and *Lohit* developed in the Buralikson centre. Other varieties like Co 997 and 740 are also grown in certain areas but no major diseases were encountered.

Meteorological data-2015-16

Month/year	Temperature (0c)		Average RH(%)	Rain Fall (mm)	Pest and disease incidence
	Max.	Min.			
February,15	31	4.5	83.0	20.2	-
March./15	34	20.6	75.9	34.4	Termite
April/15	36	17.2	69.6	236.4	Early shoot borer
May,15	36	20.5	87.9	293.8	Top borer, stem borer
June,15	36.6	22.2	89.9	224.3	Stem borer, top borer
July,15	37.4	24	89.3	233	Top borer, stem borer, ring leaf spot, eye leaf spot
August,15	36.6	23.6	91.3	183.6	Plassy borer, stem borer, top borer, and ring leaf spots
Sptember,15	35.6	23.1	92.5	245.4	Stem borer, plassy borer, eye and ring leaf spots
October,15	35.6	22.6	87.8	245.4	Stem borer, top borer, ring and eye leaf spots
November.15	30	17.3	57.4	21.8	Stem borer, top borer, ring and eye leaf spots
December,15	28	17.6	85.9	28.2	Stem borer and top borer
January,16	26	21.8	85.1	25.1	Early shoot borer and termite
February,16	30	12.2	84.0	0.2	Top borer and termite