PART I

Table A: Weekly Weather data for the year 2015 recorded at Meteorological Observatory Department of Agronomy Dr. PDKV., Akola

Weeks	Dates	T MAX (°C)	T Min	BSH (hrs)	WS (km/hr)	RH I (%)	RH II (%)	Evap (mm)	RF(mm)	CRF (mm)	Rainy days
		A	A	A	A	A	A	A	A		A
1	1-7 Jan	23.7	13.4	4.2	1.1	88	49	3.3	51.4	51.4	2.0
2	8-14	26.9	7.0	9.1	0.7	81	14	4.0	0.0	51.4	0.0
3	15-21	27.8	10.1	8.3	1.5	77	28	5.2	0.0	51.4	0.0
4	22-28	29.3	15.3	6.1	2.4	86	35	6.2	0.0	51.4	0.0
5	29-4 Feb	29.5	11.9	8.3	1.9	71	23	6.2	0.0	51.4	0.0
6	5-11	31.1	14.7	7.6	2.9	73	27	6.5	4.0	55.4	1.0
7	12-18	32.4	12.9	9.0	1.9	64	19	5.1	0.0	55.4	0.0
8	19-25	35.2	14.2	9.0	1.8	60	16	5.4	0.0	55.4	0.0
9	26-4 Mar	30.4	15.0	6.7	3.7	65	31	5.7	27.7	83.1	2.0
10	5-11	33.3	15.6	9.0	2.4	70	23	5.2	0.0	83.1	0.0
11	12-18	31.4	18.1	7.4	3.5	81	33	5.3	15.1	98.2	2.0
12	19-25	36.9	18.7	8.9	2.4	53	12	5.7	0.0	98.2	0.0
13	26-1 Apr	38.8	20.3	7.9	2.4	50	15	5.6	0.0	98.2	0.0
14	2-8 Apr	38.5	22.7	8.6	6.8	46	18	9.5	0.0	98.2	0.0
15	9-15	35.2	20.0	7.0	3.8	77	32	6.2	52.3	150.5	2.0
16	16-22	38.1	23.4	8.7	3.2	53	17	6.8	0.0	150.5	0.0
17	23-29	41.5	26.0	9.2	6.3	40	11	10.1	0.0	150.5	0.0
18	30- 6 May	42.4	26.6	9.0	7.0	38	10	9.5	0.0	150.5	0.0
19	7-13	42.9	26.2	8.4	4.2	34	14	7.3	1.0	151.5	0.0
20	14-20	41.7	27.5	6.9	5.5	48	18	8.4	0.4	151.9	0.0
21	21-27	43.5	29.0	9.8	14.9	55	18	16.6	0.0	151.9	0.0
22	28-3 Jun	43.7	29.3	8.4	10.3	43	19	14.1	0.0	151.9	0.0
23	4-10	40.9	28.3	6.5	8.1	53	26	11.5	0.0	151.9	0.0
24	11-17	36.5	23.3	6.5	9.4	85	44	8.2	53.8	205.7	2.0
25	18-24	32.8	23.6	3.0	4.7	86	53	4.4	34.3	240.0	5.0
26	25-1Jul	36.2	25.1	7.0	12.8	73	37	10.8	0.0	240.0	0.0
27	2-8	36.4	25.3	7.0	15.3	66	35	14.5	0.0	240.0	0.0
28	9-15	35.8	26.2	5.0	15.7	65	40	15.9	0.0	240.0	0.0
29	16-22	32.6	24.7	3.4	13.0	75	58	7.8	26.2	266.2	2.0
30	23-29	31.3	22.4	2.1	6.5	84	61	4.8	45.9	312.1	5.0
31	30-5 Aug	31.6	22.5	4.9	13.3	85	62	6.6	226.5	538.6	2.0
32	6-12	28.9	22.6	0.4	8.7	90	71	3.5	40.7	579.3	4.0
33	13-19	30.3	23.1	4.1	7.9	86	66	3.8	36.5	615.8	2.0
34	20-26	33.6	23.0	7.3	8.0	80	48	5.2	0.0	615.8	0.0
35	27-2 Sep	31.4	23.1	2.9	7.6	83	62	5.0	16.4	632.2	1.0
36	3-9	32.9	22.5	7.4	2.6	87	57	3.3	22.4	654.6	2.0
37	10-16	34.3	22.7	6.6	4.1	88	54	5.1	61.6	716.2	2.0
38	17-23	31.3	22.2	6.1	4.9	87	63	3.7	78.9	795.1	1.0
39	24-30	33.1	21.3	8.5	2.4	86	46	3.7	1.4	796.5	0.0
40	1-7 Oct	35.6	20.8	8.1	1.3	84	39	4.9	0.0	796.5	0.0
41	8-14	37.0	19.3	7.6	0.7	71	24	4.6	0.0	796.5	0.0
42	15-21	36.5	19.1	8.3	1.4	71	37	5.7	0.5	797.0	0.0
43	22-28	35.6	19.5	7.4	1.0	72	34	4.9	0.0	797.0	0.0
44	29-4 Nov	32.9	18.1	7.5	1.5	77	36	6.0	0.0	797.0	0.0
45	5-11	33.8	17.0	7.1	0.9	72	28	4.3	0.0	797.0	0.0

46	12-18	33.5	15.2	7.8	1.6	73	26	5.0	0.0	797.0	0.0
47	19-25	32.4	16.6	6.0	2.5	67	34	5.7	0.0	797.0	0.0
48	26-2 Dec	33.3	15.8	6.7	1.2	73	34	4.3	0.0	797.0	0.0
49	3-9	32.5	12.1	8.4	0.5	72	26	4.4	0.0	797.0	0.0
50	10-16	31.9	14.3	7.7	0.5	63	32	5.0	0.0	797.0	0.0
51	17-23	30.7	12.9	8.0	1.1	67	29	4.9	0.0	797.0	0.0
52	24-31	29.7	7.9	8.7	0.8	63	18	4.3	0.0	797.0	0.0
				TOTAL RFJanuary to Dec					797.0		37
				Total RFJune to Dec					645.1		28

Part II

Details of Research work carried out during the year 2015-2016

Part-1 General Information

Method of observation

Weekly observations on incidence of diseases were recorded on the basis of clumps infected with smut, grassy, shoots, Pokkah boeng, Yellow leaf disease etc per cent disease incidence was calculated as under

$$\% \text{ disease incidence} = \frac{\text{Number of clumps infected}}{\text{Total number of clumps observed}} \times 100$$

Whip smut : For varietal reaction following grading scale was used

Percent disease incidence	**Reaction**
0 per cent	Resistant
0.1 to 10 per cent	Moderately resistance
10.1 to 20 per cent	Moderately susceptible
20.1 to 30 per cent	Susceptible
30.1 and above	Highly susceptible

(Ref. Technical Report AICRP)

Grassy Shoot And Mosaic

Percent disease incidence	**Reaction**
No Symptoms	Highly resistant
1 per cent or less	Resistant
1.1 to 10 per cent	Moderately resistant
10.1 to 20 per cent	Moderately Susceptible
20.1 to 50 per cent	Susceptible
50.1 per cent and above	Highly susceptible

(Ref : Phytopathology by Mayee and Datar)

Pokkah boeng

Percent disease incidence	**Reaction**
0 – 5%	Resistant
> 5 – 10%	Mod. Susceptible
> 10 – 20%	Susceptible
> 20%	Highly susceptible

(Ref. Tech Programme of AICRP 2013-14)

YLD severity scale:

Score	**Disease reaction**
0.0 - 1.0	Resistant
>1.0 – 2.0	Moderately resistant
>2.0 – 3.0	Moderately susceptible
>3.0 – 4.0	Susceptible
>4.0 – 5.0	Highly susceptible

Experiment No. 1

General Information			
	Project code	-	AICRP PP-17
	Name of Research Station	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Location of Project	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Project title	-	Evaluation of zonal varieties for their reaction against major diseases of sugarcane in AVT Early I plant
	Duration of project	-	One year
	Date of start	-	2014-15
	Period for which report submitted	-	2015-16
Part II Investigation Profile			
	Principal Investigator	**-**	
	Name	-	Dr. G. K. Lande
	Designation	-	Assistant Professor
	Address	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Co-Investigator	**-**	
	Name	-	Dr. N. K. Patke
	Designation	-	Senior Research Scientist
	Department	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Location	-	Akola
	Address	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
Part III Technical Details			
	Introduction and Objectives	-	
	Immediate objectives	-	To study the sugarcane varieties for their reaction towards major diseases
	Specific objectives	-	To find out diseases resistant sources
	Project technical profile	-	

Project technical profile

Technical details

1. Progressive year - First (2015-16)
2. Design - Randomized Block Design
3. Replication - Three
4. Plot size - 6.00x 7.20m^2
5. Spacing - 90 cm row to row
6. Fertilizer - 175 kg N + 100 kg P_2O_5 + 100 kg K_2O ha^{-1}
7. Date of planting - 02/01/2015
8. Date of harvesting - 16/01/2016

9 Treatments : Eleven varieties

1. Co10004	2. Co10005	3. Co10006	4. Co 10024
5. Co10026	6. Co10027	7. CoT10366	8. CoT10367
9. Co85004 (C)	10. Co94008 (C)	11. CoC671 (C)	

10 Method of observations As per experiment No. 1

Table 1: Per cent disease incidence of Pokkah boeng, Mosaic and Yellow leaf disease in AVT Early I Plant

Sr. No.	Genotypes	% Pokkah boeng incidence	Grade	% Mosaic. incidence	Grade	% YLD incidence	Disease reaction
1	Co10004	1.69	R	0.24	R	0.53	R
2	Co10005	1.51	R	0.00	R	0.65	R
3	Co10006	1.79	R	0.15	R	0.66	R
4	Co10024	0.89	R	0.12	R	0.33	R
5	Co10026	1.01	R	0.10	R	0.30	R
6	Co10027	1.66	R	0.12	R	0.36	R
7	CoT10366	2.51	R	0.28	R	0.42	R
8	CoT10367	0.00	R	0.11	R	0.32	R
9	**Co 85004 (C)**	0.00	R	0.00	HR	0.00	R
10	**Co 94008 (C)**	2.17	R	0.00	HR	0.00	R
11	**CoC 671 (C)**	1.91	R	0.00	HR	0.36	R

Results : Data presented in Table 1 revealed that

The incidence of Pokkah boeng disease was ranging from 0.00 to 2.51 %. CoT10366 showed highest (2.51%) disease incidence. The Mosaic disease incidence was ranging from 0.00 % to 0.28 %. CoT10366 showed highest (0.28 %) disease incidence. The incidence of yellow leaf disease was 0.00 % to 0.66% was highest in Co10006 i.e.0.66%

Pokkah Boeng In case of Pokkah boeng all the eleven varieties showed resistance reaction against Pokkah boeng disease.

Mosaic Sugarcane varieties Co85004 (C), Co94008 (C), CoC 671 (C) recorded Highly resistance reaction whereas, remaining varieties showed resistance reaction against mosaic disease.

Yellow leaf disease In case of Yellow leaf disease all the eleven varieties showed resistance reaction against Yellow leaf disease.

Utility of results obtained so far

The resistant varieties will be utilized in resistant breeding programme in future

Experiment No 2

General Information			
	Project code	-	AICRP PP17
	Name of Research Station	-	Sugarcane Research Centre, Dr. P. D.K.V., Akola.
	Location of Project	-	Sugarcane Research Centre, Dr. P. D.K.V., Akola.
	Project title	-	Evaluation of zonal varieties for their reaction against major diseases of sugarcane in AVT Early II plant
	Duration of project	-	One year
	Date of start	-	2014-15
	Period for which report submitted	-	2015-16
Part II Investigation Profile			
	Principal Investigator	**-**	
	Name	-	Dr. G. K. Lande
	Designation	-	Assistant Professor
	Address	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Co-Investigator	**-**	
	Name	-	Dr. N. K. Patke
	Designation	-	Senior Research Scientist
	Department	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Location	-	Akola
	Address	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
Part III Technical Details			
	Introduction and Objectives		
	Immediate objectives	-	To screen the sugarcane varieties in AICRP Trials for their reactions to major diseases.
	Specific objectives	-	To find out diseases resistant sources
	Project technical profile		
	Technical details		
1.	Progressive year	-	First (2014-2015)
2.	Design	-	Randomized Block Design
3.	Replication	-	Four
4.	Plot size	-	6.00 x 7.20 m^2
5.	Spacing	-	90 cm row to row
6.	Fertilizer	-	175 kg N + 100 kg P_2O_5 + 100 kg K_2O ha^{-1}
7.	Date of planting	-	16/01/2015
8.	Date of harvesting	-	25/01/2016

9.	Treatment : Six Genotypes		
1. Co09004	2. Co09007	3. CoN09072	4. Co85004
5. Co94008	6 CoC671 (C)		
Observations recorded			
	As per experiment No 1		

Table 2: Per cent disease incidence of Pokkah boeng, Mosaic and Yellow leaf disease in AVT Early II Plant

Sr. No.	Genotypes	% Pokkah boeng incidence	Grade	% Mosaic. incidence	Grade	% YLD incidence	Disease reaction
1	Co09004	2.39	R	0.10	R	0.58	R
2	Co09007	2.47	R	0.00	R	1.45	MR
3	CoN09072	2.03	R	0.11	R	0.91	R
	Co85004	2.79	R	0.10	R	0.80	R
5	**Co94008**	3.62	R	0.11	R	0.61	R
6	**CoC671**	4.30	R	0.17	R	0.52	R

Results : Data presented in Table 2 revealed that
The incidence of Pokkah boeng disease was ranging from 2.03 to 4.30%. CoC671 showed highest (4.30 %) disease incidence. The Mosaic disease incidence was ranging from 0.00 % to 0.17 %. CoC671 showed highest (0.17 %) disease incidence. The incidence of yellow leaf disease was 0.52 % to 0.80% and highest was in Co85004 i.e. 0.80%.

Pokkah Boeng All Sugarcane Varieties showed resistance reaction against Pokkah boeng disease.

Mosaic All the Varieties showed Resistant reaction against mosaic.

Yellow leaf disease All the Varieties showed Resistant reaction against YLD except Co09007 which showed moderately resistance reaction.

Utility of results obtained so far

The resistant varieties will be utilized in resistant breeding programme in future

Experiment No 3

General Information			
	Project code	-	AICRP PP-17
	Name of Research Station	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Location of Project	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Project title	-	Evaluation of zonal varieties for their reaction against major diseases of sugarcane in AVT Midlate I plant
	Duration of project	-	One year
	Date of start	-	2014-15
	Period for which report submitted	-	2015-2016

Part II Investigation Profile			
	Principal Investigator	**-**	
	Name	-	Dr. G. K. Lande
	Designation	-	Assistant Professor
	Address	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Co-Investigator	**-**	
	Name	-	Dr. N. K. Patke
	Designation	-	Senior Research Scientist
	Department	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Location	-	Akola
	Address	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.

Part III Technical Details			
	Introduction and Objectives		
	Immediate objectives	-	To screen the sugarcane varieties in AICRP Trials for their reactions to major diseases.
	Specific objectives	-	To find out diseases resistant sources

Project technical profile

Technical details

1. Progressive year - First (2015-2016)
2. Design - Randomized Block Design
3. Replication - Two
4. Plot size - 6.00 x 7.20 m^2
5. Spacing - 90 cm row to row
6. Fertilizer - 175 kg N + 100 kg P_2O_5 + 100 kg K_2O ha^{-1}
7. Date of Planting - 31/12/2014
8. Date of harvesting - 15/01/2016
9. Treatments : Thirteen genotypes
   1) Co 09009
   2) Co10015
   3) Co 10017
   4) Co10031
   5) Co 10033
   6) CoM10083
   7) CoT10368
   8) CoT10369
   9) CoVC10061
   10) PI 10131
   11) PI 10132
   12) Co86032 (C)
   13) Co99004 (C)

Observations to be recorded

As per experiment No 1.

Table 3: Per cent disease incidence of Pokkah boeng, Mosaic and Yellow leaf disease in AVT Midlate I Plant

Sr. No.	Genotypes	% Pokkah boeng incidence	Grade	% Mosaic. incidence	Grade	% YLD incidence	Disease reaction
1	Co09009	2.79	R	0.24	R	0.70	R
2	Co10015	1.65	R	0.00	R	0.54	R
3	Co10017	2.54	R	0.36	R	0.00	R
4	Co10031	2.06	R	0.48	R	0.00	R
5	Co10033	0.00	R	0.00	R	0.18	R
6	CoM10083	2.10	R	0.23	R	0.20	R
7	CoT10368	3.19	R	0.00	R	0.59	R
8	CoT10369	2.00	R	0.17	R	0.17	R
9	CoVC10061	0.00	R	0.00	R	0.48	R
10	PI 10131	1.99	R	0.00	R	0.49	R
11	PI 10132	0.00	R	0.24	R	0.44	R
12	Co86032 ©	2.14	R	0.00	R	0.35	R
13	Co99004 ©	0.65	R	0.00	R	1.25	MR

Results : Data presented in Table 3 revealed that
The incidence of Pokkah boeng disease was ranging from 0.00 to 3.19 %. CoT10368 showed highest (3.19 %) disease incidence. The Mosaic disease incidence was ranging from 0.00 % to 0.48 %. Co10031 showed highest (0.48 %) disease incidence. The incidence of yellow leaf disease was ranging from 0.00 to 1.25 % .Co99004 showed highest (1.25 %) disease incidence

Pokkah Boeng All Sugarcane Varieties showed resistance reaction against Pokkah boeng disease.

Yellow leaf disease All the varieties showed less incidence of yellow leaf disease showing resistance reaction except Co99004 which showed moderately resistance reaction against YLD.

Mosaic
All the varieties showed less incidence of Mosaic and resistance reaction against mosaic.

622.4 Utility of results obtained so far

The resistant varieties will be utilized in resistant breeding programme in future

Experiment No 4

General Information			
	Project code	-	AICRP PP-17
	Name of Research Station	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Location of Project	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Project title	-	Evaluation of zonal varieties for their reaction against major diseases of sugarcane in IVT Early plant
	Duration of project	-	One year
	Date of start	-	2014-15
	Period for which report submitted	-	2015-2016

Part II Investigation Profile			
	Principal Investigator	**-**	
	Name	-	Dr. G. K. Lande
	Designation	-	Assistant Professor
	Address	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Co-Investigator	**-**	
	Name	-	Dr. N. K. Patke
	Designation	-	Senior Research Scientist
	Department	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Location	-	Akola
	Address	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.

Part III Technical Details			
	Introduction and Objectives		
	Immediate objectives	-	To screen the sugarcane varieties in AICRP Trials for their reactions to major diseases.
	Specific objectives	-	To find out diseases resistant sources

Project technical profile

Technical details

1. Progressive year - First (2015-2016)
2. Design - Randomized Block Design
3. Replication - Two
4. Plot size - 6.00 x 7.20 m^2
5. Spacing - 90 cm row to row
6. Fertilizer - 175 kg N + 100 kg P_2O_5 + 100 kg K_2O ha^{-1}
7. Date of Planting - 12/01/2015
   15/01/2016
8. Date of harvesting -

9. Treatments : Fifteen genotypes

1) Co12001
2) Co12003
3) Co 12006
4) Co12007
14) Co94008(C)
15) CoC671(C)
5) Co 12008
6) CoM12081
7) CoM12082
8) CoM12083
9) CoN12071
10) CoN12072
11) CoT12366
12) CoT12367
13) Co85004 (C)

Observations to be recorded : As per experiment No 1.

Table 4: Per cent disease incidence of Pokkah boeng, Mosaic and Yellow leaf disease in IVT Early Plant

Sr. No.	Genotypes	% Pokkah boeng incidence	Grade	% Mosaic. incidence	Grade	% YLD incidence	Disease reaction
1	Co12001	**1.90**	R	**0.00**	R	**0.71**	R
2	Co12003	**1.70**	R	**0.33**	R	**0.34**	R
3	Co12006	**0.76**	R	**0.19**	R	**0.65**	R
4	Co12007	**1.62**	R	**0.00**	R	**0.40**	R
5	Co12008	**3.72**	R	**0.20**	R	**0.62**	R
6	CoM12081	**2.02**	R	**0.33**	R	**0.50**	R
7	CoM12082	**1.53**	R	**0.19**	R	**0.19**	R
8	CoM12083	**1.45**	R	**0.00**	R	**0.29**	R
9	CoN12071	**2.20**	R	**0.37**	R	**0.18**	R
10	CoN12072	**2.56**	R	**0.55**	R	**0.19**	R
11	CoT12366	**3.16**	R	**0.00**	R	**0.66**	R
12	CoT12367	**1.60**	R	**0.00**	R	**0.59**	R
13	Co 85004 (C)	**0.00**	R	**0.00**	R	**0.44**	R
14	Co 94008 (C)	**0.00**	R	**0.00**	R	**0.37**	R
15	CoC 671 (C)	**2.20**	R	**0.00**	R	**0.37**	R

Results : Data presented in Table 4 revealed that
The incidence of Pokkah boeng disease was ranging from 0.00 to 3.72 %. Co12008 showed highest (3.72 %) disease incidence. The Mosaic disease incidence was ranging from 0.00 % to 0.55 %. CoN12072 showed highest (0.55 %) disease incidence. The incidence of yellow leaf disease was ranging from 0.18 to 0.71 % . Co12001 showed highest (0.71 %) disease incidence

Pokkah Boeng All Sugarcane Varieties showed resistance reaction against Pokkah boeng disease.

Yellow leaf disease All the varieties showed less incidence of yellow leaf disease showing resistance reaction against YLD.

Mosaic All the varieties showed less incidence of Mosaic and resistance reaction against mosaic.

Utility of results obtained so far

The resistant varieties will be utilized in resistant breeding programme in future

Experiment No 5

General Information			
	Project code	-	AICRP PP-17
	Name of Research Station	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Location of Project	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Project title	-	Evaluation of zonal varieties for their reaction against major diseases of sugarcane in IVT Midlate plant
	Duration of project	-	One year
	Date of start	-	2014-15
	Period for which report submitted	-	2015-2016

Part II Investigation Profile			
	Principal Investigator	**-**	
	Name	-	Dr. G. K. Lande
	Designation	-	Assistant Professor
	Address	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Co-Investigator	**-**	
	Name	-	Dr. N. K. Patke
	Designation	-	Senior Research Scientist
	Department	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.
	Location	-	Akola
	Address	-	Sugarcane Research Centre, Dr.P.D.K.V., Akola.

Part III Technical Details

Introduction and Objectives

Immediate objectives - To screen the sugarcane varieties in AICRP Trials for their reactions to major diseases.

Specific objectives - To find out diseases resistant sources

Project technical profile

Technical details

1. Progressive year - First (2015-2016)
2. Design - Randomized Block Design
3. Replication - Two
4. Plot size - 6.00 x 7.20 m^2
5. Spacing - 90 cm row to row
6. Fertilizer - 175 kg N + 100 kg P_2O_5 + 100 kg K_2O ha^{-1}
7. Date of Planting - 14/01/2015
   20/01/2016
8. Date of harvesting -

9. Treatments : Seventeen genotypes

1) Co12009	5) Co 12017	5) Co 12017
2) Co12012	6) Co12019	6) Co12019
3) Co 12014	7) Co12021	7) Co12021
4) Co12016	8) Co12024	8) Co12024
14) CoT12368	9) CoM12084	9) CoM12084
15) VSI12121	10) CoM12085	10) CoM12085
16) Co86032(C)	11) CoM12086	11) CoM12086
17) Co99004(C)	12) CoN12073	12) CoN12073
	13) CoN12074	13) CoN12074

Observations to be recorded

As per experiment No 1.

Table 5: Per cent disease incidence of Pokkah boeng, Mosaic and Yellow leaf disease in IVT Midlate Plant

Sr. No.	Genotypes	% Pokkah boeng incidence	Grade	% Mosaic. incidence	Grade	% YLD incidence	Disease reaction
1	Co12009	0.83	R	0.00	R	0.77	R
2	Co12012	2.05	R	0.40	R	0.40	R
3	Co12014	2.20	R	0.00	R	0.42	R
4	Co12016	2.89	R	0.00	R	0.54	R
5	Co12017	3.13	R	0.68	R	0.65	R
6	Co12019	3.74	R	0.00	R	0.37	R
7	Co12021	3.86	R	0.32	R	0.00	R
8	Co12024	2.73	R	0.90	R	0.00	R
9	CoM12084	3.00	R	0.00	R	0.42	R
10	CoM12085	2.40	R	0.00	R	0.00	R
11	CoM12086	2.27	R	0.00	R	0.37	R
12	CoN12073	1.00	R	0.16	R	0.41	R
13	CoN12074	1.58	R	0.00	R	0.40	R
14	CoT12368	1.00	R	0.17	R	0.50	R
15	VSI12121	3.05	R	0.00	R	0.76	R
16	**Co86032**	3.81	R	0.38	R	0.59	R
17	**Co99004**	5.12	MR	0.00	R	0.47	R

Results : Data presented in Table 5 revealed that
The incidence of Pokkah boeng disease was ranging from 0.83 to 5.12 %. Co99004 showed highest (5.12 %) disease incidence. The Mosaic disease incidence was ranging from 0.00 % to 0.90 %. Co12024 showed highest (0.90 %) disease incidence. The incidence of yellow leaf disease was ranging from 0.00 to 0.77 % . Co12009 showed highest (0.77 %) disease incidence

Pokkah Boeng All Sugarcane Varieties showed resistance reaction against Pokkah boeng disease except Co99004 which showed 5.12% Moderately resistance reaction.

Yellow leaf disease All the varieties showed less incidence of yellow leaf disease showing resistance reaction against YLD.

Mosaic

All the varieties showed less incidence of Mosaic and resistance reaction against mosaic.

Utility of results obtained so far

The resistant varieties will be utilized in resistant breeding programme in future