



**Pest Situation of Sugarcane  
Crop in Punjab  
(15<sup>TH</sup> – 31<sup>ST</sup> MARCH 2021)**

**Directorate General  
Pest Warning & Quality Control of  
Pesticides Punjab, Lahore**

**FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE  
CROP FOR THE 2<sup>ND</sup> FORTNIGHT OF MARCH 2021**

Pest Situation of Sugarcane Pests								
Sr. No.	Pest Name	%age of spots						Remarks
		Current Week		Previous week		Corresponding week of Last Year		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	BORER	0.00	6.34	0.00	3.12	0.00	10.19	-
2	PYRILLA	0.15	0.46	0.00	0.00	0.00	0.00	Low
3	WHITEFLY	0.00	0.15	0.00	0.62	0.00	0.62	-
4	BLACK BUG	2.94	21.02	0.00	8.94	0.00	10.80	Decreasing
5	MITES	0.00	0.00	0.00	0.00	0.00	0.00	-
6	TOKA	0.00	0.31	0.00	0.00	0.00	0.00	-
7	MEALY BUG	0.00	-	0.00	-	0.00	-	-
8	RED ROT	1.24	-	1.46	-	0.00	-	Decreasing
9	WHIP SMUT	0.00	-	0.00	-	0.00	-	-
10	MOSAIC VIRUS	0.00	-	0.00	-	0.00	-	-
11	RUST	0.15	-	0.00	-	0.00	-	Low

**METEOROLOGICAL DATA OF THE FORTNIGHT**

Districts	2021				2020			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
<b>Multan</b>	30.2	18.1	68.9	8.5	26.8	15.95	74.98	28.9
<b>Khanewal</b>	30.3	17.8	64.5	5.5	25.8	15.03	71.88	20.0
<b>Vehari</b>	29.1	18.5	64.0	20.5	25.6	15.85	70.25	20.0
<b>Lodhran</b>	28.1	18.0	67.3	7.5	25.3	15.85	75.73	46.0
<b>Sahiwal</b>	28.0	16.0	58.00	16.0	24.0	15.0	78.00	21.0
<b>Pakpattan</b>	31.0	18.0	52.00	4.00	25.7	17.3	59.71	27
<b>Okara</b>	32	16.5	54	6.00	26	18.5	78	15
<b>Bahawalpur</b>	29.93	16.67	67.63	0.71	28.05	15.56	69.23	2.38
<b>Bahawalnagar</b>	31.90	17.95	55.75	0.00	28.55	17.80	63.80	1.10
<b>R.Y. Khan</b>	32.40	19.24	52.28	1.57	28.57	16.57	77.71	1.58
<b>D.G Khan</b>	26.72	9.64	68.42	0.00	29.14	15.72	70.92	0
<b>M. Garh</b>	28.9	15.3	58.6	2.00	25.5	15.8	52.4	5.0
<b>Rajanpur</b>	34.10	19.20	46.00	15.0	33.00	18.94	54.00	0
<b>Layyah</b>	29.31	16.23	62.66	4.00	23.26	13.25	72.13	32
<b>AVERAGE</b>	<b>30.1</b>	<b>16.9</b>	<b>60.0</b>	<b>6.5</b>	<b>26.8</b>	<b>16.2</b>	<b>69.2</b>	<b>15.7</b>

## **FORECAST FOR THE NEXT FORTNIGHT**

### **BORERS**

This pest flourish best at optimum temperature 35-41C° with relative humidity below 65-70%. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. It is predicted that the population of this pest will increase during the next fortnight.

### **PYRILLA**

This pest flourish best at optimum temperature 29-40C with relative humidity 75-84%. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. It is predicted that the population of this pest will increase during the next fortnight.

### **WHITEFLY**

This pest flourish best at optimum temperature 29-40C with relative humidity 75-84%. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. It is predicted that the population of this pest will sustain during the next fortnight.

### **BLACK BUG**

This pest flourish best at optimum temperature 22.9-40.9C with relative R. humidity 46%. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. It is predicted that the population of this pest will increase during the next fortnight.

### **TOKA**

The optimal temperature and RH conditions for the feeding activities are 28.5-33C and 60-70 C° % respectively. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. It is predicted that the population of this pest may sustain during the next fortnight.

### **MEALY BUG**

This pest flourish best at optimum temperature 29-40C with relative humidity 75-84%. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. It is predicted that the population of this pest will sustain as such during the next fortnight.

### **TERMITES**

The optimal temperature and RH conditions for the feeding activities are 35°-40C and 70-80% respectively. The current weather conditions on overall South Punjab basis is as; maximum

temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. It is predicted that the population of this pest will may sustain as such during the next fortnight.

### **MITES**

The optimal temperature and RH conditions for the feeding activities are 30°-36C and 20-40% respectively. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. It is predicted that the population of this pest will sustain as such during the next fortnight.

### **RUST**

This disease flourish best at optimum temperature 12-14C with relative humidity below 80-85%. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0.7**. It is predicted that this disease incidence may increase in the coming fortnight.

### **RED ROT**

This disease flourish best at optimum temperature 25.5-26.5C with relative humidity 60%. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. It is predicted that the incidence of this disease may sustain in the coming fortnight.

### **WHIP SMUT**

This disease flourish best at optimum temperature 14-35C with relative humidity 55-80%. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. It is predicted that incidence will sustain as such during the next fortnight.

### **MOSAIC VIRUS**

This disease flourish best at optimum temperature 14-35C with relative humidity 55-80%. The current weather conditions on overall South Punjab basis is as; maximum temperature **30.1** C°, minimum **16.9** C° with R. humidity **60.0**. Incidence of this disease is not expected during the coming fortnight.

## **RECOMMENDATIONS**

### **BORERS MANAGEMENT**

- ❖ Install cards of beneficial insects (*Trichogramma*) from the start of crop.
- ❖ Apply granular insecticide carbofuron 3G@ 12-14 kg/acre to the fields where infestation of sugarcane borers observed above ETL.

## **PYRILLA MANAGEMENT**

- ❖ Promote parasitic insects (*Tetrastichus pyrillae*) against eggs of pyrilla and (*Epiricania melanoleuca*) against nymphs and adults of pyrilla.
- ❖ Cut the leaves 6 inch in length from those fields having parasite eggs and pupae in abundance and shift/hang them in fields where parasites are not found.
- ❖ Apply Granular insecticide Carbofuron 3G@ 12-14 kg/acre to the fields where infestation of sugarcane Pyrilla reaches ETL and parasites are not found. Application of granules may be done till the 6 feet height of canes.

## **WHITEFLY MANAGEMENT**

- ❖ Cut severe infested leaves of whitefly and bury in the soil.
- ❖ Install cards of beneficial insects i.e *Chrysoperla carnea*

## **BLACK BUG MANAGEMENT**

- ❖ Avoid the cane fields from water stress.
- ❖ Apply granular insecticide carbofuron 3G@ 12-14 kg/acre

## **RUST MANAGEMENT**

- ❖ Cultivate resistant varieties.
- ❖ Cut and burn the diseased plants/ Plant pests.

## **WHIP SMUT MANAGEMENT**

- ❖ Cut and burn the diseased plants / Plant pests

## **ECONOMIC THRESHOLD LEVELS (ETLs) OF SUGARCANE PESTS**

<b>INSECT PESTS</b>	<b>ECONOMIC THRESHOLD LEVEL</b>
Borers	10% infested canes.
Pyrilla	3 per leaf.
Whitefly	10 per Leaf
Black bug	10 per sheath.
Toka	3 per sweep
Mites	10 per Leaf
Mealy bug	Only presence
Termites	10% damage
Rodents	5 live burrows per acre
Diseases	Only presence