



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

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

## FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 1<sup>ST</sup> FORTNIGHT OF April 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	0.27	19.73	0.00	6.34	0.19	13.04	Low
2	PYRILLA	0.00	0.27	0.15	0.46	0.00	0.00	Low
3	WHITEFLY	0.00	0.68	0.00	0.15	0.00	1.49	Low
4	BLACK BUG	5.48	39.73	2.94	21.02	4.10	26.07	Increasing
5	MITES	0.00	0.00	0.00	0.00	0.00	0.00	-
6	TOKA	0.00	1.78	0.00	0.31	0.00	0.00	-
7	MEALY BUG	0.00	-	0.00	-	0.00	-	-
8	RED ROT	0.82	-	1.24	-	0.74	-	Decreasing
9	WHIP SMUT	1.37	-	0.00	-	0.37	-	Increasing
10	MOSAIC VIRUS	0.00	-	0.00	-	0.00	-	-
11	RUST	0.00	-	0.15	-	0.56	-	Low

### METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2021				2020			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Multan	35.6	19.7	65.7	0.0	34.5	20.45	74.11	1.0
Khanewal	35.0	19.5	56.4	4.5	34.8	20.8	69.1	0.0
Vehari	34.4	19.6	52.8	0.0	32.9	19.4	70.5	4.0
Lodhran	32.6	19.1	69.3	7.5	32.8	18.6	72.6	2.0
Sahiwal	33.0	18.0	41.0	4.0	29.0	19.0	61.0	0.0
Pakpattan	33.0	19.0	44.0	3.0	28.0	18.0	60.4	0.0
Okara	32.0	19.0	48.0	5.0	29.0	19.0	72.0	0.0
Bahawalpur	37.0	18.4	39.1	0.5	29.8	17.7	59.8	0.5
Bahawalnagar	34.6	17.9	45.5	0.2	30.2	19.0	59.4	0.7
R.Y. Khan	36.7	19.7	40.3	0.0	33.0	18.3	52.4	0.0
D.G Khan	30.2	18.4	35.2	3.0	36.3	22.7	68.3	0.0
M. Garh	31.7	18.1	52.8	0.6	31.6	19.7	47.7	0.0
Rajanpur	35.7	19.1	39.6	1.0	34.4	18.2	45.0	0.0
Layyah	32.6	17.7	49.1	0.0	28.3	14.7	66.0	0.0
<b>AVERAGE</b>	<b>33.9</b>	<b>18.8</b>	<b>48.5</b>	<b>2.1</b>	<b>31.8</b>	<b>19.0</b>	<b>62.7</b>	<b>0.6</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 **33.9** C°, minimum **18.8** C° with R. humidity **48.5**. It is predicted that the population of this pest will sustain 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 **33.9** C°, minimum **18.8** C° with R. humidity **48.5**. It is predicted that the population of this pest will sustain 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 **33.9** C°, minimum **18.8** C° with R. humidity **48.5**. 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 **33.9**C°, minimum **18.8** C° with R. humidity **48.5**. 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 **33.9** C°, minimum **18.8** C° with R. humidity **48.5**. 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 **33.9** C°, minimum **18.8** C° with R. humidity **48.5**. 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 **33.9** C°, minimum **18.8** C° with R. humidity **48.5**. 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 **33.9** C°, minimum **18.8** C° with R. humidity **48.5**. 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 **33.9** C°, minimum **18.5** C° with R. humidity **48.5**. It is predicted that this disease may sustain as such 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 **33.9** C°, minimum **18.8** C° with R. humidity **48.5**. It is predicted that the incidence of this disease may increase 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 **33.9** C°, minimum **18.8** C° with R. humidity **48.5**. It is predicted that incidence may increase 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 **33.9** C°, minimum **18.8** C° with R. humidity **48.5**. 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