



**Pest Situation of Sugarcane  
Crop in Punjab  
(15<sup>TH</sup> – 30<sup>TH</sup> JUNE 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 JUNE 2021

Pest Situation of Sugarcane Pests								
		%age of spots						Remarks
Sr. No.	Pest Name	Current Week		Previous week		Corresponding week of Last Year		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	BORER	1.29	25.99	1.20	30.50	2.78	37.26	<b>Increasing</b>
2	PYRILLA	0.00	3.51	0.17	7.30	0.00	2.78	Decreasing
3	WHITEFLY	0.06	0.99	0.00	0.00	0.00	0.29	<b>Increasing</b>
4	BLACK BUG	0.00	9.17	0.17	17.53	0.50	15.13	Decreasing
-5	MITES	0.06	4.19	1.12	5.93	0.36	3.35	Decreasing
6	TOKA	0.31	8.93	0.43	7.65	0.79	10.49	Decreasing
7	MEALY BUG	0.00	-	0.00	-	0.29	-	-
8	RED ROT	1.85	-	2.32	-	3.78	-	Decreasing
9	WHIP SMUT	3.20	-	3.61	-	3.50	-	Decreasing
10	MOSAIC VIRUS	0.00	-	0.00	-	0.00	-	-
11	RUST	0.00	-	0.09	-	0.00	-	Decreasing

### METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2021				2020			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
<b>Multan</b>	37.8	27.8	73.8	46.8	41.2	31.5	66.65	0.0
<b>Khanewal</b>	38.8	28.7	56.4	16.0	42.5	31.14	59.79	0.0
<b>Vehari</b>	37.9	27.5	55.6	37.0	41.4	31.57	70.21	0.0
<b>Lodhran</b>	37.4	25.0	74.6	61.0	42.6	31.07	65.46	0.0
<b>Sahiwal</b>	40.0	27.0	51.0	2.0	41.0	28	59	38.0
<b>Pakpattan</b>	42.0	29.0	52.0	0.0	44.8	31.2	52.8	22.0
<b>Okara</b>	39.0	27.0	49.0	0.0	37.1	25.94	79.57	63.0
<b>Bahawalpur</b>	38.9	27.4	53.7	11.4	42.6	30.21	46.67	0.0
<b>Bahawalnagar</b>	38.0	27.0	57.2	15.3	43.2	29.5	52.48	7.7
<b>R.Y. Khan</b>	40.6	27.2	43.1	11.5	43.3	29.88	48.28	0.0
<b>D.G Khan</b>	41.1	28.4	59.6	29.0	42.1	30.93	56.64	2.0
<b>M. Garh</b>	41.9	30.3	36.3	6.0	42.5	29.87	42.14	1.0
<b>Rajanpur</b>	42.4	29.6	40.7	8.5	42.2	28.74	39	0.0
<b>Layyah</b>	44.4	30.3	35.4	3.0	40.3	28.56	37.4	0.0
<b>TOT/AVG</b>	<b>40.0</b>	<b>28.0</b>	<b>52.7</b>	<b>17.7</b>	<b>41.9</b>	<b>29.9</b>	<b>55.4</b>	<b>9.5</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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. It is predicted that the population of this pest will sustain 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. It is predicted that the population of this pest will sustain 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. It is predicted that incidence is expected to sustain 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. 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