



**Pest Situation of Sugarcane  
Crop in Punjab  
(1<sup>ST</sup> – 15<sup>TH</sup> MAY 2022)**

## FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 1ST FORTNIGHT OF MAY 2022

Pest Situation of Sugarcane Pests								
Sr. No.	Pest Name	%age of spots						Remarks
		Current F.Night 2022		Previous F.Night 2022		Corresponding F.Night of 2021		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	BORER	2.25	28.43	1.76	25.96	2.56	30.22	<b>Increasing</b>
2	PYRILLA	0.79	13.03	1.14	16.44	0.00	2.43	Decreasing
3	WHITEFLY	0.00	0.11	0.00	0.10	0.00	1.15	-
4	BLACK BUG	5.73	35.96	6.83	36.50	4.32	33.16	Decreasing
-5	MITES	0.00	0.34	0.00	0.00	0.00	0.64	-
6	TOKA	0.34	4.72	0.52	2.59	0.00	1.79	Decreasing
7	MEALY BUG	0.00	-	0.00	-	0.00	-	-
8	RED ROT	2.58	-	2.38	-	1.92	-	<b>Increasing</b>
9	WHIP SMUT	5.62	-	1.86	-	3.07	-	<b>Increasing</b>
10	MOSAIC VIRUS	0.00	-	0.00	-	0.00	-	-
11	RUST	0.00	-	0.21	-	0.00	-	Decreasing

### METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2022				2021			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
<b>Multan</b>	47.7	31.9	58.1	0.0	39.1	26.23	62.17	Traces
<b>Khanewal</b>	46.0	30.0	50.5	0.0	39.3	26.71	59.36	1.0
<b>Vehari</b>	44.8	29.1	50.5	0.0	39.1	27.14	57.29	0.0
<b>Lodhran</b>	45.4	28.9	55.3	5.0	38.1	26	60.41	0.0
<b>Sahiwal</b>	42.0	25.3	41.5	0.0	35.0	20	58	6.0
<b>Pakpattan</b>	42.4	26.4	42.8	0.0	32.6	20	49.57	2.0
<b>Okara</b>	42.6	27.0	44.5	0.0	34.0	24	55	5.0
<b>Bahawalpur</b>	43.5	26.1	35.8	0.0	39.3	25.71	37.13	6.1
<b>Bahawalnagar</b>	43.8	25.3	30.9	0.0	38.2	23.42	43.62	0.0
<b>R.Y. Khan</b>	45.3	27.1	44.2	0.0	40.1	26.32	38.4	0.0
<b>D.G Khan</b>	42.1	25.5	30.0	0.0	41.3	25.25	29.5	0.0
<b>M. Garh</b>	41.5	22.8	45.7	0.0	31.7	18.08	52.83	1.0
<b>Rajanpur</b>	43.8	26.8	39.4	0.0	39.0	22.16	39.94	1.5
<b>Layyah</b>	43.0	23.5	44.0	0.0	37.1	23.42	33.5	0.0
<b>TOT/AVG</b>	<b>43.8</b>	<b>26.8</b>	<b>43.8</b>	<b>5.0</b>	<b>37.4</b>	<b>23.9</b>	<b>48.3</b>	<b>22.6</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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. 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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. 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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. 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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. 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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. It is predicted that the population of this pest will 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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. It is predicted that the population of this pest will sustain 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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. It is predicted that the population of this pest will sustain 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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. 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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. It is predicted that the population of this pest will sustain during the next 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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. It is predicted that the population of this pest will increase during the next 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 **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. It is predicted that the population of this pest will increase during the next fortnight.

## **MOSAIC VIRUS**

The current weather conditions on overall South Punjab basis is as; maximum temperature **43.8** C°, minimum **26.8** C° with R. humidity **43.8**. It is predicted that the population of this pest will sustain during the next 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