



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

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Pest Warning & Quality Control of  
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## FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 1st FORTNIGHT OF JULY 2021

<b>Pest Situation of Sugarcane Pests</b>								
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	0.98	25.71	0.00	0.81	0.95	34.16	<b>Increasing</b>
2	PYRILLA	0.78	5.57	0.00	0.00	0.00	5.22	<b>Increasing</b>
3	WHITEFLY	0.49	8.11	0.00	0.00	0.00	3.80	<b>Increasing</b>
4	BLACK BUG	0.00	10.17	0.00	0.00	0.09	11.67	-
-5	MITES	0.20	1.96	0.00	0.00	2.47	6.64	<b>Increasing</b>
6	TOKA	0.78	11.05	0.00	0.00	0.66	12.43	<b>Increasing</b>
7	MEALY BUG	0.10	-	0.00	-	0.00	-	Low
8	RED ROT	4.40	-	0.41	-	7.37	-	<b>Increasing</b>
9	WHIP SMUT	3.13	-	0.41	-	4.27	-	<b>Increasing</b>
10	MOSAIC VIRUS	0.00	-	0.00	-	0.00	-	-
11	RUST	0.00	-	0.00	-	0.09	-	-

### METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2021				2020			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
<b>Multan</b>	40.3	31.5	73.9	0.0	39.6	30.6	68.55	0.0
<b>Khanewal</b>	41.0	31.0	63.9	1.0	40.4	30.67	58.02	0.0
<b>Vehari</b>	40.3	30.6	66.6	2.0	40.1	30.36	66.79	0.0
<b>Lodhran</b>	40.6	30.0	73.1	3.0	40.9	29.82	66.04	0.0
<b>Sahiwal</b>	41.0	29.0	56.0	1.0	38.9	28.38	63.63	30.0
<b>Pakpattan</b>	42.0	31.0	53.0	2.0	38.6	28.2	54.80	2.0
<b>Okara</b>	40.0	24.0	51.0	1.0	38.5	25.68	65.00	5.0
<b>Bahawalpur</b>	40.9	27.4	53.7	11.4	42.6	30.21	46.67	0.0
<b>Bahawalnagar</b>	41.8	29.6	49.3	7.0	41.5	28.13	51.29	0.0
<b>R.Y. Khan</b>	40.4	27.1	43.2	110.0	43.4	29.86	48.79	0.0
<b>D.G Khan</b>	42.2	28.9	59.0	1.0	42.1	30.50	53.57	0.0
<b>M. Garh</b>	42.7	32.2	31.5	0.0	41.8	30.50	49.96	2.0
<b>Rajanpur</b>	43.3	31.0	39.6	0.0	41.7	32.30	40.76	0.0
<b>Layyah</b>	48.0	29.4	42.0	0.0	40.3	28.40	40.60	4.5
<b>TOT/AVG</b>	<b>41.7</b>	<b>29.5</b>	<b>54.0</b>	<b>10.0</b>	<b>40.8</b>	<b>29.5</b>	<b>55.3</b>	<b>3.1</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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. It is predicted that the population of this pest can increase 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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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 **40.0** C°, minimum **28.0** C° with R. humidity **52.7**. The current weather conditions on overall South Punjab basis is as; maximum temperature **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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 **41.7** C°, minimum **29.5** C° with R. humidity **54.0**. 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

INSECT PESTS	ECONOMIC THRESHOLD LEVEL
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