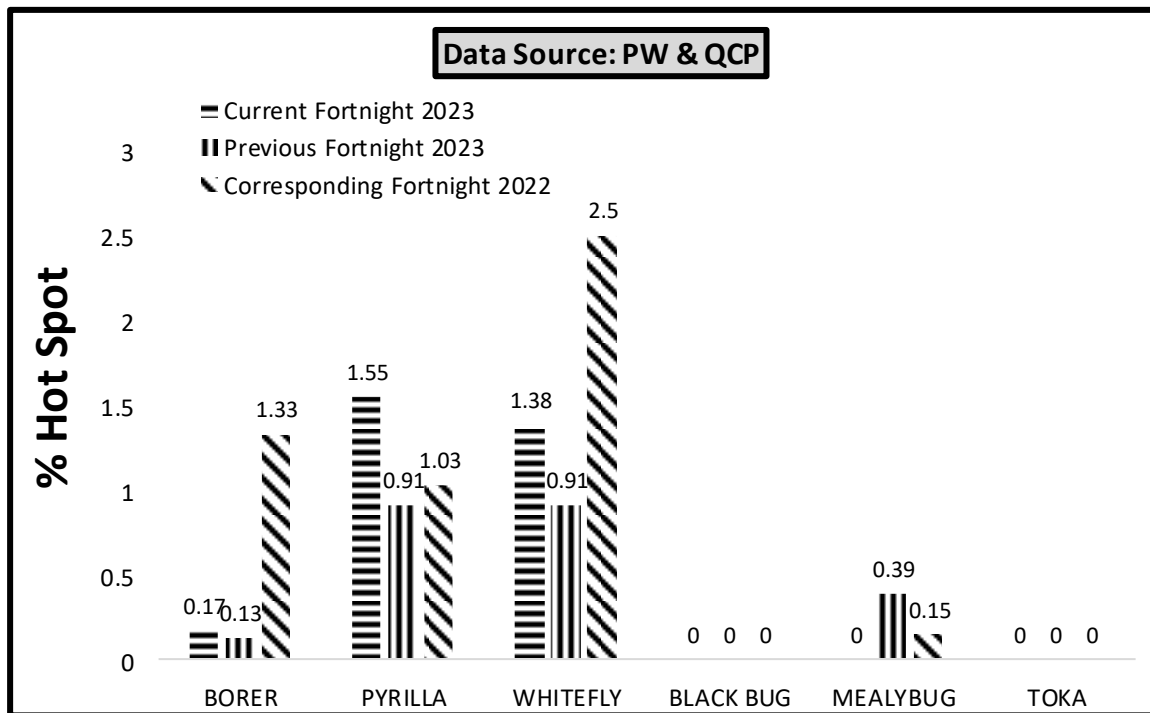


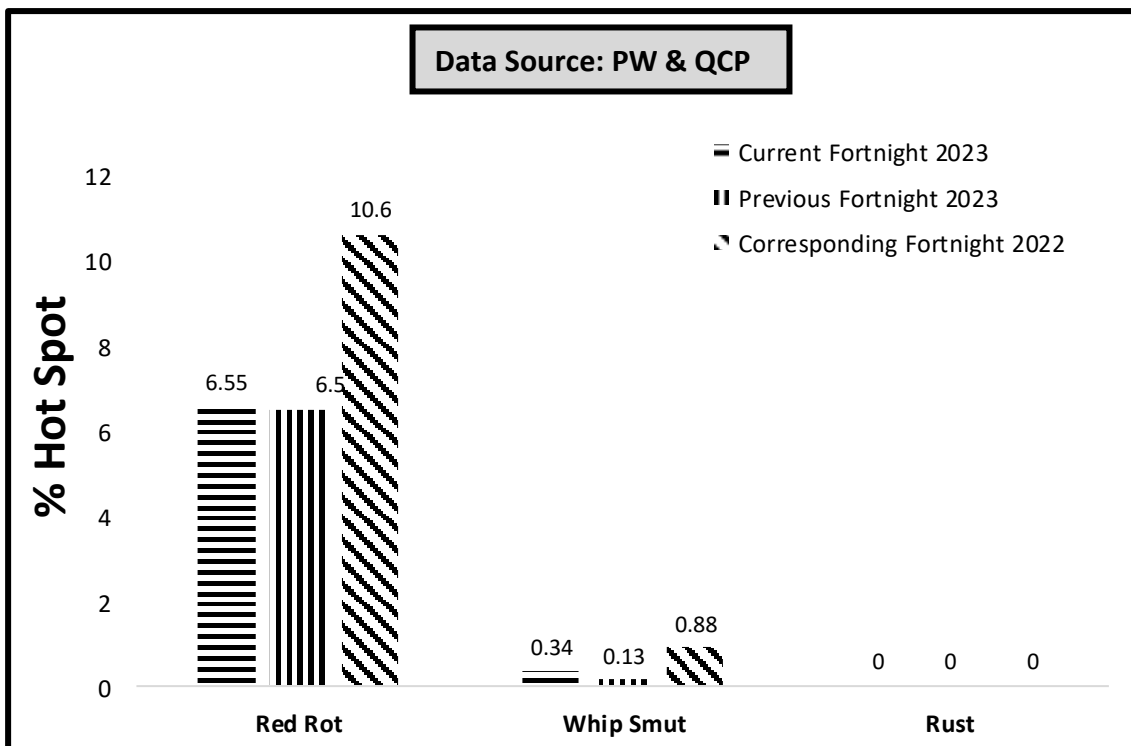
**Pest Situation of Sugarcane  
Crop in Punjab  
1<sup>ST</sup> – 15<sup>TH</sup> NOVEMBER 2023)**

# GRAPHICAL PEST SITUATION ON SUGARCANE CROP IN PUNJAB FOR THE 1ST FORTNIGHT OF NOVEMBER 2023

## A- Insect Pest



## B- Disease



## FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 1ST FORTNIGHT OF NOVEMBER 2023

Pest Situation of Sugarcane Pests								
Sr. No.	Pest Name	%age of spots						Remarks
		Current F.Night 2023		Previous F.Night 2023		Corresponding F.Night of 2022		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	BORER	0.17	18.79	0.13	17.95	1.33	16.94	<b>Increasing</b>
2	PYRILLA	1.55	13.97	0.91	13.00	1.03	12.22	Decreasing
3	WHITEFLY	1.38	11.90	0.91	18.47	2.50	14.58	Decreasing
4	BLACK BUG	0.00	6.03	0.00	5.46	0.00	3.98	-
-5	MITES	0.00	0.00	0.00	1.17	0.00	0.00	-
6	TOKA	0.00	7.93	0.00	11.18	0.00	6.77	-
7	MEALY BUG	0.00	-	0.39	-	0.15	-	Decreasing
8	RED ROT	6.55	-	6.50	-	10.60	-	<b>Increasing</b>
9	WHIP SMUT	0.34	-	0.13	-	0.88	-	<b>Increasing</b>
10	MOSAIC VIRUS	0.00	-	0.00	-	0.00	-	-
11	RUST	0.00	-	0.00	-	0.00	-	-

### METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2023				2022			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
<b>Multan</b>	31.3	18.7	71.6	0.0	31.3	16.3	62.0	0.0
<b>Khanewal</b>	28.4	15.8	60.5	0.0	29.6	15.9	65.1	0.0
<b>Vehari</b>	28.0	16.6	69.5	0.0	31.7	16.3	60.6	0.0
<b>Lodhran</b>	26.1	17.1	64.7	0.1	29.1	15.7	69.9	0.0
<b>Sahiwal</b>	27.5	15.5	68.0	4.0	29.3	14.3	67.5	0.0
<b>Pakpattan</b>	28.1	16.5	67.5	2.0	28.4	14.5	68.0	0.0
<b>Okara</b>	26.6	15.3	66.0	0.0	29.1	14.6	67.2	0.0
<b>Bahawalpur</b>	28.7	17.1	70.2	0.0	28.8	16.2	69.3	0.0
<b>Bahawalnagar</b>	30.3	18.7	69.6	0.0	31.5	18.4	69.0	0.0
<b>R.Y. Khan</b>	34.8	21.5	61.8	0.0	32.0	17.8	36.4	0.0
<b>D.G Khan</b>	26.1	17.5	55.9	0.0	31.5	26.7	69.6	0.0
<b>M. Garh</b>	25.5	17.2	60.5	0.0	29.5	22.5	58.0	0.0
<b>Rajanpur</b>	26.8	17.4	73.0	0.0	27.0	16.6	76.8	0.0
<b>Layyah</b>	24.6	15.0	70.0	0.0	25.2	16.2	68.9	0.0
<b>TOT/AVG</b>	<b>28.1</b>	<b>17.1</b>	<b>66.3</b>	<b>0.4</b>	<b>29.6</b>	<b>17.3</b>	<b>64.9</b>	<b>0.0</b>

## **FORECAST FOR THE NEXT FORTNIGHT**

### **BORERS**

This pest flourish best at optimum temperature 35-41°C with relative humidity below 65-70%. The current weather conditions on overall Punjab basis is as; maximum temperature 28.1°C , minimum 17.1°C with R. humidity 66.3. It is predicted that the population of this pest will sustain during the next fortnight.

### **PYRILLA**

This pest flourish best at optimum temperature 29-40°C with relative humidity 75-84%. The current weather conditions on overall Punjab basis is as; maximum temperature 28.1°C , minimum 17.1°C with R. humidity 66.3. It is predicted that the population of this pest will decrease during the next fortnight.

### **WHITEFLY**

This pest flourish best at optimum temperature 29-40°C with relative humidity 75-84%. The current weather conditions on overall Punjab basis is as; maximum temperature 28.1°C , minimum 17.1°C with R. humidity 66.3. It is predicted that the population of this pest will increase during the next fortnight.

### **BLACK BUG**

This pest flourish best at optimum temperature 22.9-40.9°C with relative R. humidity 46%. The current weather conditions on overall Punjab basis is as; maximum temperature 28.1°C , minimum 17.1°C with R. humidity 66.3. 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 28.5-33°C and 60-70% respectively. The current weather conditions on overall Punjab basis is as; maximum temperature

28.1°C , minimum 17.1°C with R. humidity 66.3. It is predicted that the population of this pest will sustain during the next fortnight.

### **MEALY BUG**

This pest flourish best at optimum temperature 29-40°C with relative humidity 75-84%. The current weather conditions on overall Punjab basis is as; maximum temperature 28.1°C , minimum 17.1°C with R. humidity 66.3. 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 35-40°C and 70-80% respectively. The current weather conditions on overall Punjab basis is as; maximum temperature 28.1°C , minimum 17.1°C with R. humidity 66.3. 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 30-36°C and 20-40% respectively. The current weather conditions on overall Punjab basis is as; maximum temperature **32.6°C**, minimum **21.3°C** with R. humidity **58.7**. It is predicted that the population of this pest will sustain during the next fortnight.

### **RUST**

This disease flourish best at optimum temperature 12-14°C with relative humidity below 80-85%. The current weather conditions on overall Punjab basis is as; maximum temperature 28.1°C , minimum 17.1°C with R. humidity 66.3. It is predicted that this disease will sustain during the next fortnight.

### **RED ROT**

This disease flourish best at optimum temperature 25.5-26.5°C with relative humidity 60%. The current weather conditions on overall Punjab basis is as; maximum temperature 28.1°C ,

minimum 17.1°C with R. humidity 66.3. It is predicted that the population of this pest will increase during the next fortnight.

### **WHIP SMUT**

This disease flourish best at optimum temperature 14-35°C with relative humidity 55-80%. The current weather conditions on overall Punjab basis is as; maximum temperature 28.1°C , minimum 17.1°C with R. humidity 66.3. It is predicted that the population of this pest will increase during the next fortnight.

### **MOSAIC VIRUS**

The current weather conditions on overall Punjab basis is as; maximum temperature 28.1°C , minimum 17.1°C with R. humidity 66.3. 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

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