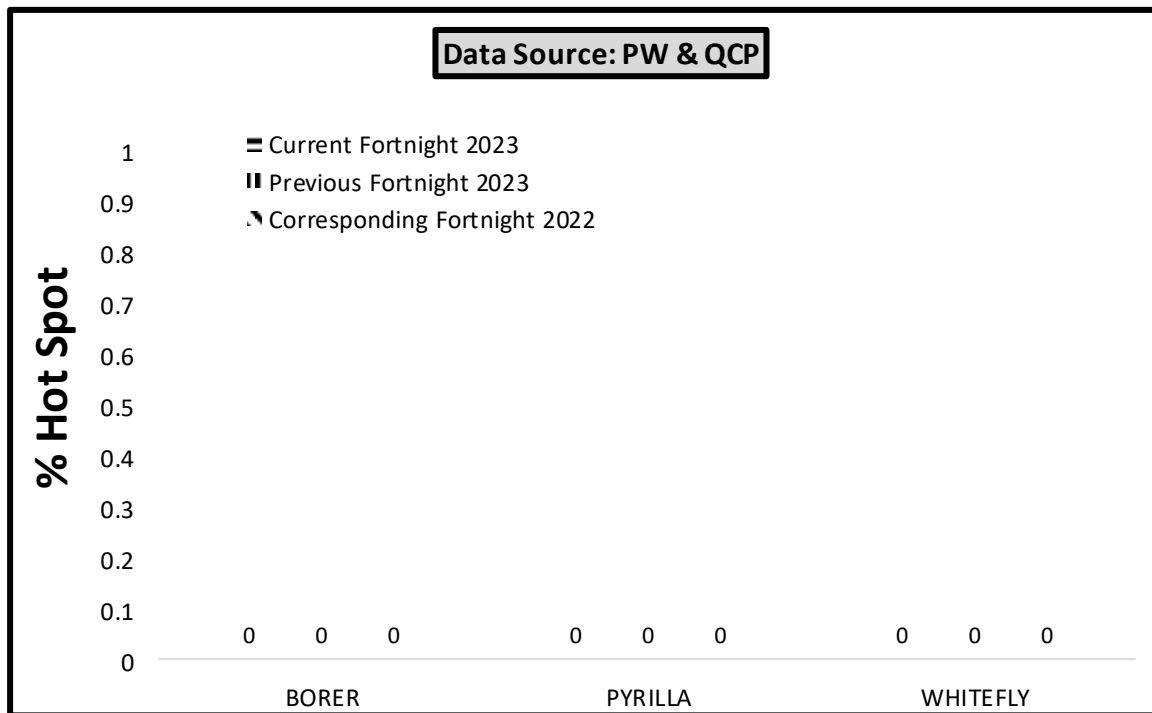


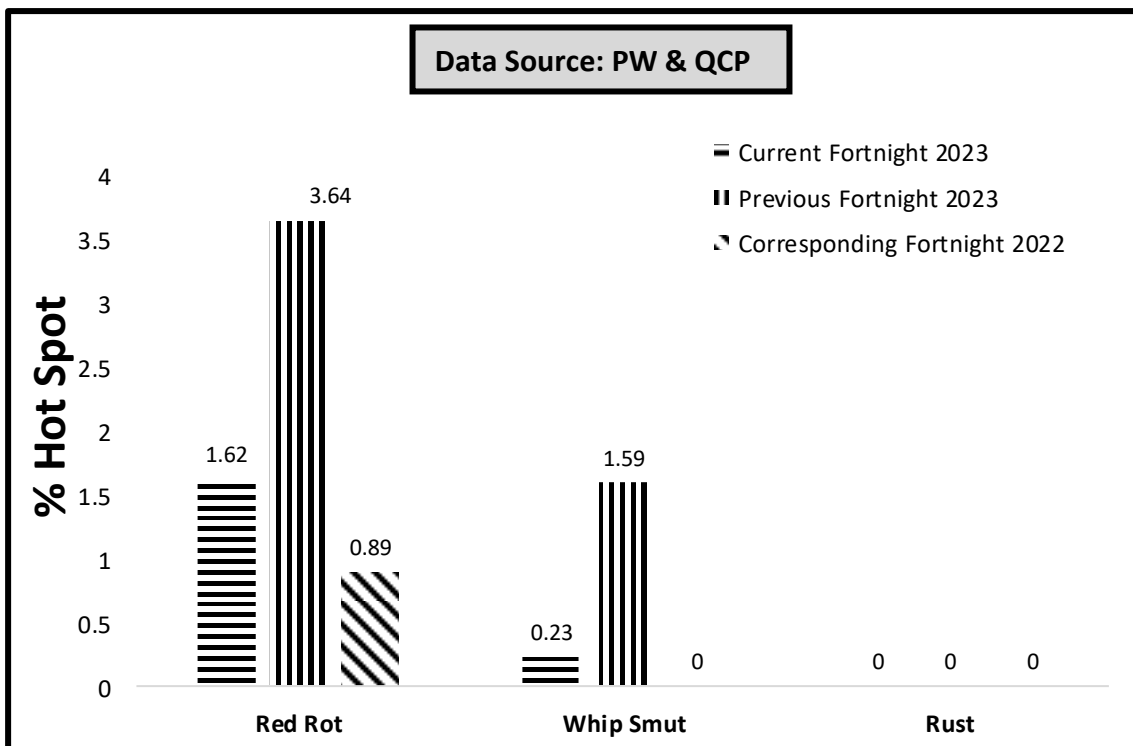
**Pest Situation of Sugarcane  
Crop in Punjab  
1<sup>ST</sup> – 15<sup>TH</sup> MARCH 2023)**

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

## A- Insect Pest



## B- Disease



**FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE  
CROP FOR THE 1ST FORTNIGHT OF MARCH 2023**

<b>Pest Situation of Sugarcane Pests</b>								
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	0.00	6.00	0.00	4.55	0.00	2.44	-
2	PYRILLA	0.00	0.00	0.00	0.00	0.00	0.00	-
3	WHITEFLY	0.00	0.23	0.00	0.45	0.00	0.44	-
4	BLACK BUG	0.00	9.70	0.00	1.14	0.00	9.11	-
-5	MITES	0.00	0.00	0.00	0.00	0.00	0.00	-
6	TOKA	0.00	1.62	0.00	0.68	0.00	1.11	-
7	MEALY BUO	0.00	-	0.00	-	0.00	-	-
8	RED ROT	1.62	-	3.64	-	0.89	-	<b>Decreasing</b>
9	WHIP SMUT	0.23	-	1.59	-	0.00	-	<b>Decreasing</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>	29.6	15.1	57.4	0.0	25.1	12.3	63.6	0.0
<b>Khanewal</b>	26.3	12.4	60.6	0.0	24.3	13.2	64.3	0.0
<b>Vehari</b>	28.4	13.3	57.7	0.0	24.2	12.5	62.7	0.0
<b>Lodhran</b>	26.3	15.3	63.3	0.0	24.8	12.3	61.7	0.0
<b>Sahiwal</b>	28.2	13.6	64.4	0.0	24.0	10.0	66.0	4.0
<b>Pakpattan</b>	27.6	12.5	65.0	0.0	23.4	10.2	67.5	2.0
<b>Okara</b>	27.1	12.9	66.0	0.0	22.1	11.0	68.0	5.0
<b>Bahawalpur</b>	29.6	12.6	63.5	5.0	27.9	11.1	62.2	1.4
<b>Bahawalnagar</b>	28.8	13.1	56.1	1.0	27.5	11.7	63.4	0.0
<b>R.Y. Khan</b>	33.0	15.0	59.0	0.0	30.0	13.8	71.0	0.0
<b>D.G Khan</b>	30.1	15.5	55.5	0.6	28.4	13.1	53.3	0.0
<b>M. Garh</b>	25.8	10.7	67.5	0.5	31.7	18.1	52.8	0.6
<b>Rajanpur</b>	29.7	13.2	58.6	1.0	21.0	19.1	58.9	0.0
<b>Layyah</b>	27.5	13.0	53.5	1.4	23.4	11.1	53.4	0.0
<b>TOT/AVG</b>	<b>28.4</b>	<b>13.4</b>	<b>60.6</b>	<b>9.5</b>	<b>25.6</b>	<b>12.8</b>	<b>62.1</b>	<b>13.0</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 **28.4** °C, minimum **13.4** °C with R. humidity **60.6**. 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 **28.4** °C, minimum **13.4** °C with R. humidity **60.6**.It is predicted that the population of this pest will sustain 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 **28.4** °C, minimum **13.4** °C with R. humidity **60.6**.It is predicted that the population of this pest will sustain during the next fortnight.

### **BLACK BUG**

This pest flourish best at optimum temperature 22.9-40.9 °C with relative R. humidity 46%. The current weather conditions on overall Punjab basis is as; maximum temperature **28.4** °C, minimum **13.4** °C with R. humidity **60.6**.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

**28.4 °C**, minimum **13.4 °C** with R. humidity **60.6**. 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 **28.4 °C**, minimum **13.4 °C** with R. humidity **60.6**. 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 current weather conditions on overall Punjab basis is as; maximum temperature **39.1 °C**, minimum **28.6 °C** with R. humidity **56.0**. The current weather conditions on overall Punjab basis is as; maximum temperature **28.4 °C**, minimum **13.4 °C** with R. humidity **60.6**. 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 **28.4 °C**, minimum **13.4 °C** with R. humidity **60.6**. 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 **28.4 °C**, minimum **13.4 °C** with R. humidity **60.6**. It is predicted that the population of this pest will sustain during the next fortnight.

## RED ROT

This disease flourish best at optimum temperature 25.5-26.5 °C with relative humidity 60. The current weather conditions on overall Punjab basis is as; maximum temperature **28.4** °C, minimum **13.4** °C with R. humidity **60.6**. It is predicted that the population of this pest will sustain 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 **28.4** °C, minimum **13.4** °C with R. humidity **60.6**. It is predicted that the population of this pest will sustain during the next fortnight.

## MOSAIC VIRUS

The current weather conditions on overall Punjab basis is as; maximum temperature **28.4** °C, minimum **13.4** °C with R. humidity **60.6**. 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 pyrilla*) 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