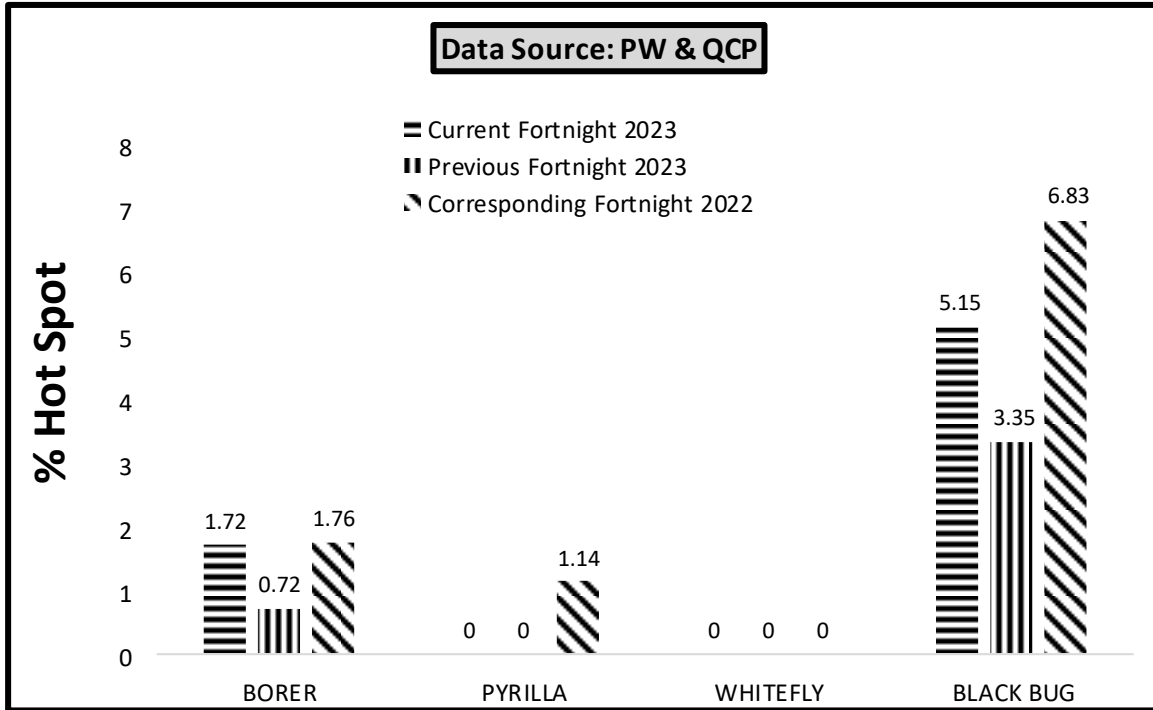


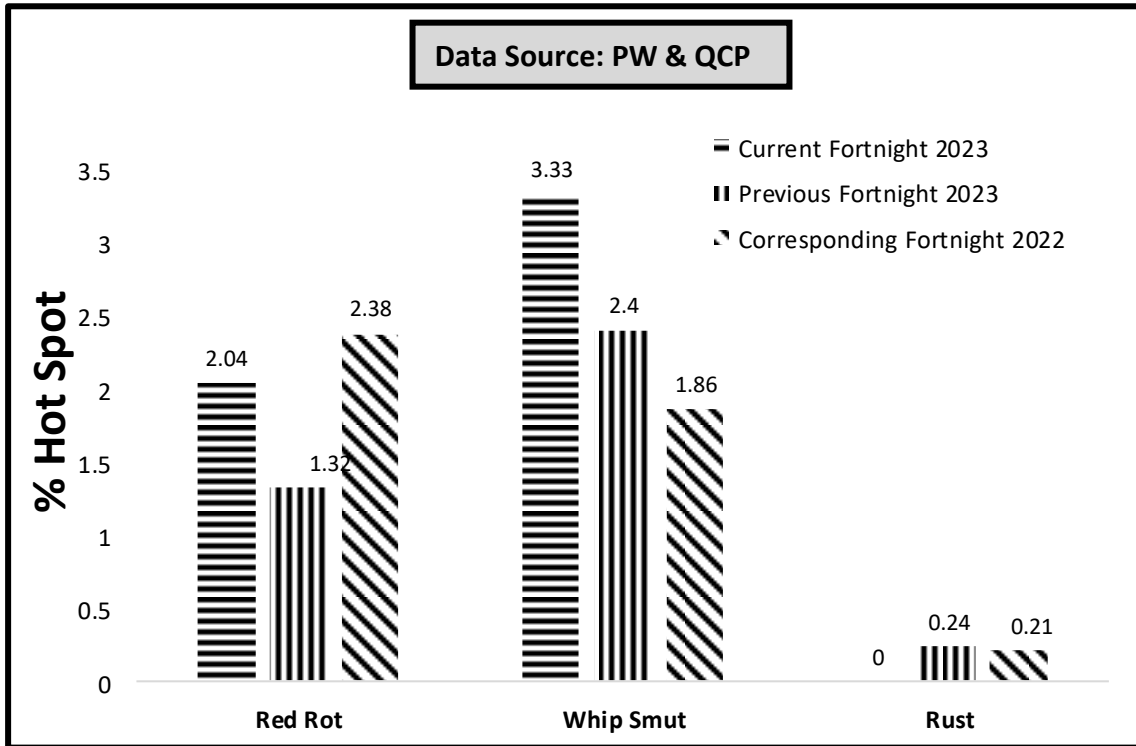
**Pest Situation of Sugarcane  
Crop in Punjab  
15<sup>TH</sup> – 30<sup>TH</sup> APRIL 2023)**

# GRAPHICAL PEST SITUATION ON SUGARCANE CROP IN PUNJAB FOR THE 2<sup>ND</sup> FORTNIGHT OF APRIL 2023

## A- Insect Pest



## B- Disease



## FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 2nd FORTNIGHT OF APRIL 2023

Pest Situation of Sugarcane Pests								
		%age of spots						Remarks
Sr. No.	Pest Name	Current F.Night 2023		Previous F.Night 2023		Corresponding F.Night of 2022		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	BORER	1.72	27.04	0.72	22.87	1.76	25.96	<b>Increasing</b>
2	PYRILLA	0.00	3.33	0.00	2.87	1.14	16.44	-
3	WHITEFLY	0.00	0.21	0.00	0.84	0.00	0.10	-
4	BLACK BUG	5.15	24.33	3.35	30.06	6.83	36.50	<b>Increasing</b>
-5	MITES	0.00	0.00	0.00	0.00	0.00	0.00	-
6	TOKA	0.00	5.58	0.00	5.87	0.52	2.59	-
7	MEALY BUG	0.00	-	0.00	-	0.00	-	-
8	RED ROT	2.04	-	1.32	-	2.38	-	<b>Increasing</b>
9	WHIP SMUT	3.33	-	2.40	-	1.86	-	<b>Increasing</b>
10	MOSAIC VIRUS	0.00	-	0.00	-	0.00	-	-
11	RUST	0.00	-	0.24	-	0.21	-	Decreasing

### METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2023				2022			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
<b>Multan</b>	38.6	20.8	68.4	0.8	39.9	28.4	57.6	0.0
<b>Khanewal</b>	35.9	21.2	62.4	0.1	40.4	26.1	53.0	4.0
<b>Vehari</b>	37.1	22.9	48.5	0.0	39.2	27.3	50.2	0.0
<b>Lodhran</b>	36.8	23.1	64.8	0.1	41.4	28.5	59.9	0.0
<b>Sahiwal</b>	36.5	20.5	44.5	0.0	41.2	24.0	36.0	0.0
<b>Pakpattan</b>	36.0	20.2	44.8	0.0	41.5	22.8	37.5	0.0
<b>Okara</b>	36.4	20.7	44.9	0.0	41.8	23.0	36.4	0.0
<b>Bahawalpur</b>	38.3	21.3	41.1	T	41.4	23.1	35.7	0.0
<b>Bahawalnagar</b>	36.6	22.9	37.7	Traces	43.5	24.8	31.7	2.0
<b>R.Y. Khan</b>	37.6	23.0	44.0	11.7	42.4	25.9	35.0	Showering
<b>D.G Khan</b>	39.6	23.1	35.5	5.0	41.9	25.0	30.7	0.0
<b>M. Garh</b>	37.0	22.7	64.5	0.5	40.2	24.0	54.8	1.0
<b>Rajanpur</b>	38.7	23.1	36.0	2.5	43.0	25.9	39.4	0.1
<b>Layyah</b>	34.5	19.5	50.0	1.0	39.4	23.3	48.5	0.0
<b>TOT/AVG</b>	<b>37.1</b>	<b>21.8</b>	<b>49.1</b>	<b>21.7</b>	<b>41.2</b>	<b>25.2</b>	<b>43.3</b>	<b>7.1</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 **37.1**°C, minimum **21.8**°C with R. humidity **49.1**. It is predicted that the population of this pest will increase 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 **37.1** °C, minimum **21.8** °C with R. humidity **49.1**. It is predicted that the population of this pest can increase 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 **37.1**°C, minimum **21.8** °C with R. humidity **49.1**. 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 **37.1**°C, minimum **21.8**°C with R. humidity **49.1**. 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 28.5-33 °C and 60-70% respectively. The current weather conditions on overall Punjab basis is as; maximum temperature

**37.1** °C, minimum **21.8** °C with R. humidity **49.1**. 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 **37.1** °C, minimum **21.8** °C with R. humidity **49.1**. 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 **37.1** °C, minimum **21.8** °C with R. humidity **49.1**. 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 **37.1** °C, minimum **21.8** °C with R. humidity **49.1**. 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 **37.1** °C, minimum **21.8** °C with R. humidity **49.1**. 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 **37.1** °C,

minimum **21.8** °C with R. humidity **49.1**. 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 **37.1** °C, minimum **21.8** °C with R. humidity **49.1**. 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 **37.1** °C, minimum **21.8** °C with R. humidity **49.1**. 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