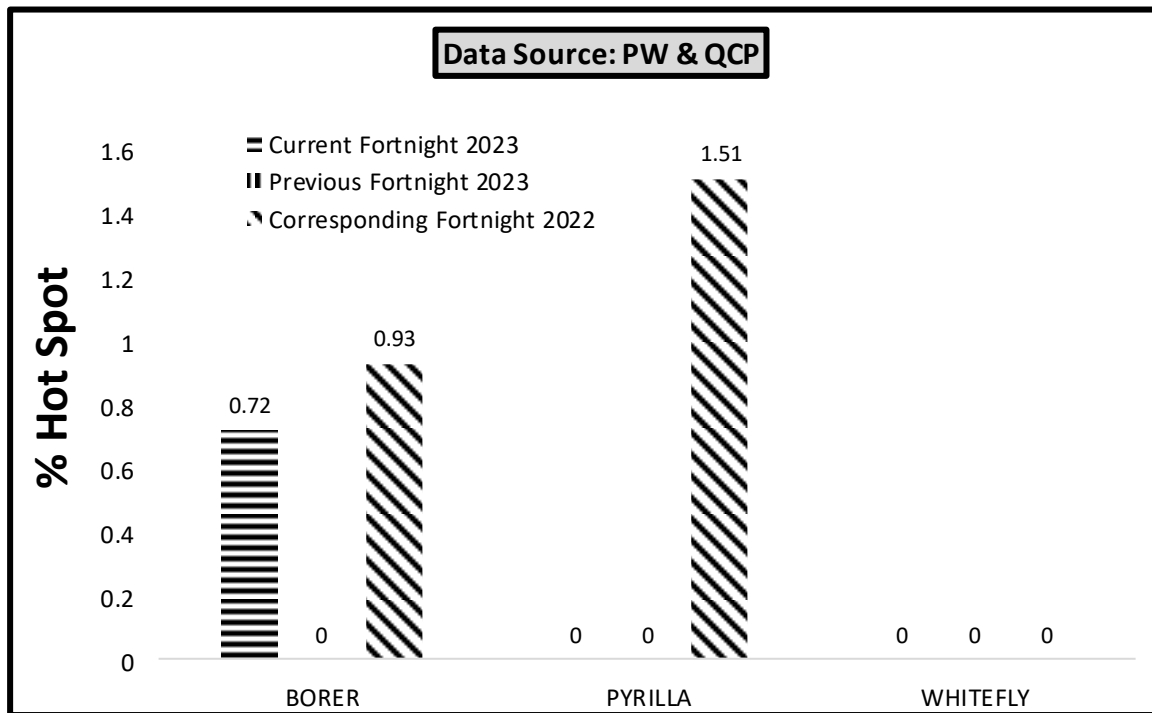


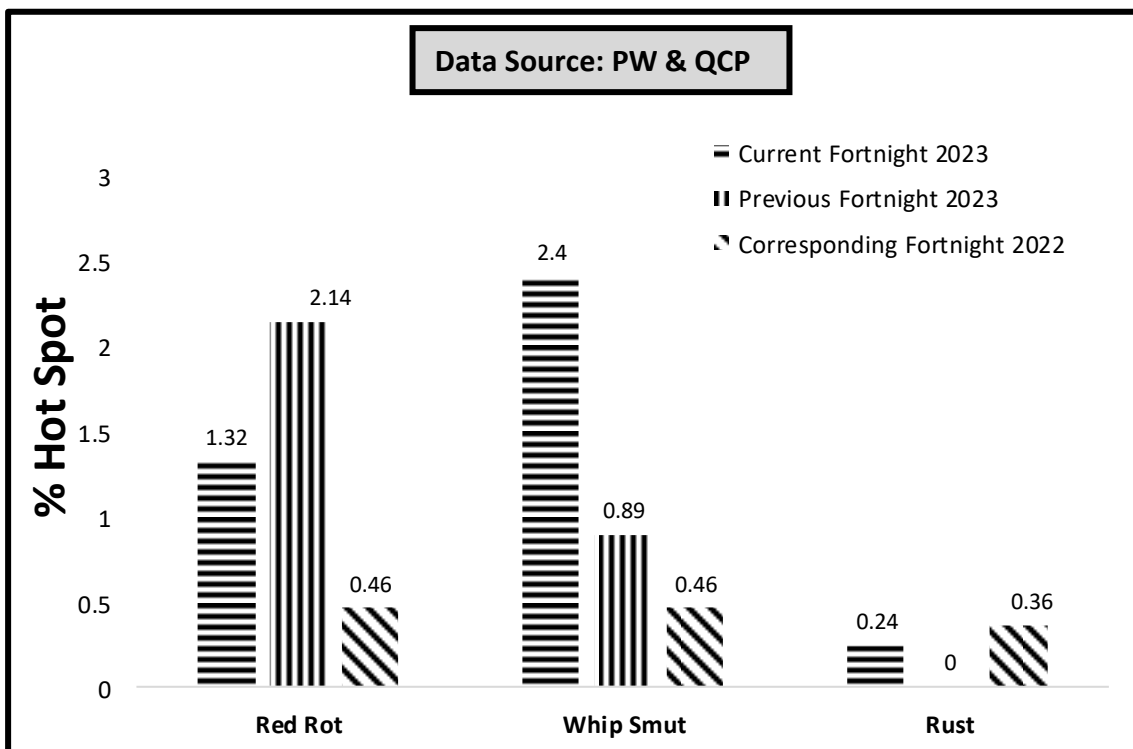
**Pest Situation of Sugarcane  
Crop in Punjab  
1<sup>ST</sup> – 15<sup>TH</sup> APRIL 2023)**

# GRAPHICAL PEST SITUATION ON SUGARCANE CROP IN PUNJAB FOR THE 1<sup>ST</sup> FORTNIGHT OF APRIL 2023

## A- Insect Pest



## B- Disease



## FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 1ST FORTNIGHT OF APRIL 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	0.72	22.87	0.00	15.00	0.93	19.37	<b>Increasing</b>
2	PYRILLA	0.00	2.87	0.00	0.00	1.51	12.76	-
3	WHITEFLY	0.00	0.84	0.00	0.18	0.00	0.23	-
4	BLACK BUG	3.35	30.06	2.86	23.93	6.84	33.99	<b>Increasing</b>
5	MITES	0.00	0.00	0.00	0.54	0.00	0.00	-
6	TOKA	0.00	5.87	0.00	5.18	0.00	1.74	-
7	MEALY BUO	0.00	-	0.00	-	0.00	-	-
8	RED ROT	1.32	-	2.14	-	0.46	-	Decreasing
9	WHIP SMUT	2.40	-	0.89	-	0.46	-	<b>Increasing</b>
10	MOSAIC VIRUS	0.00	-	0.00	-	0.00	-	-
11	RUST	0.24	-	0.00	-	0.35	-	<b>Increasing</b>

### METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2023				2022			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
<b>Multan</b>	29.8	18.2	69.8	8.3	40.1	23.0	60.1	0.0
<b>Khanewal</b>	31.4	18.6	64.8	2.1	39.4	22.5	56.8	0.0
<b>Vehari</b>	31.9	19.6	67.0	0.9	40.0	22.4	53.8	0.0
<b>Lodhran</b>	30.3	18.3	68.4	4.1	40.2	23.7	60.3	0.0
<b>Sahiwal</b>	31.0	18.0	62.0	0.0	41.8	20.4	45.0	0.0
<b>Pakpattan</b>	30.6	18.5	62.5	0.0	39.6	19.5	44.0	0.0
<b>Okara</b>	32.2	19.0	61.0	0.0	39.5	21.2	42.0	0.0
<b>Bahawalpur</b>	33.6	18.0	53.9	9.4	41.7	20.7	36.5	0.0
<b>Bahawalnagar</b>	32.6	18.3	46.5	12.0	42.0	22.1	37.3	0.0
<b>R.Y. Khan</b>	35.7	21.0	63.0	0.0	40.2	23.0	49.3	0.0
<b>D.G Khan</b>	33.6	20.1	67.4	0.0	42.7	22.6	49.3	0.0
<b>M. Garh</b>	32.8	20.2	70.2	6.5	39.8	22.7	53.3	0.0
<b>Rajanpur</b>	35.5	21.3	61.8	11.0	43.5	23.7	46.4	0.0
<b>Layyah</b>	32.0	17.0	70.0	2.5	34.5	20.2	50.0	0.0
<b>TOT/AVG</b>	<b>32.4</b>	<b>19.0</b>	<b>63.4</b>	<b>4.1</b>	<b>40.4</b>	<b>22.0</b>	<b>48.9</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 **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 °C % respectively. The current weather conditions on overall Punjab basis is as; maximum

temperature **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 South Punjab basis is as; maximum temperature **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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 **32.4** °C, minimum **19.0** °C with R. humidity **63.4**. 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