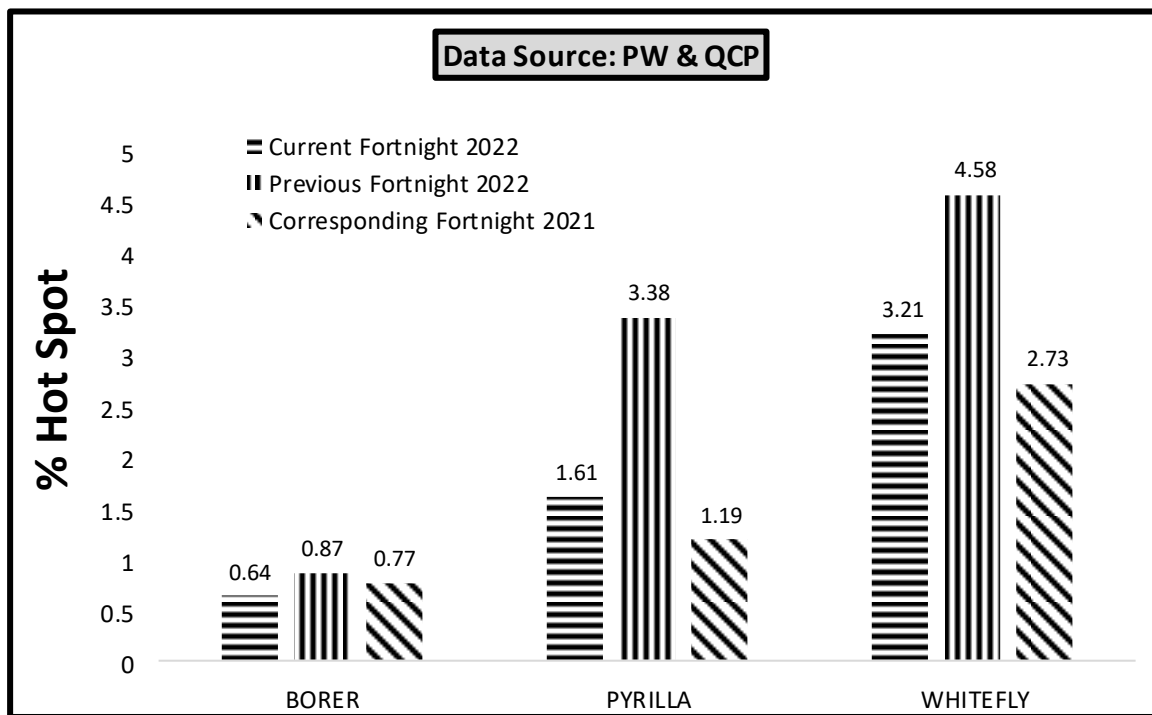


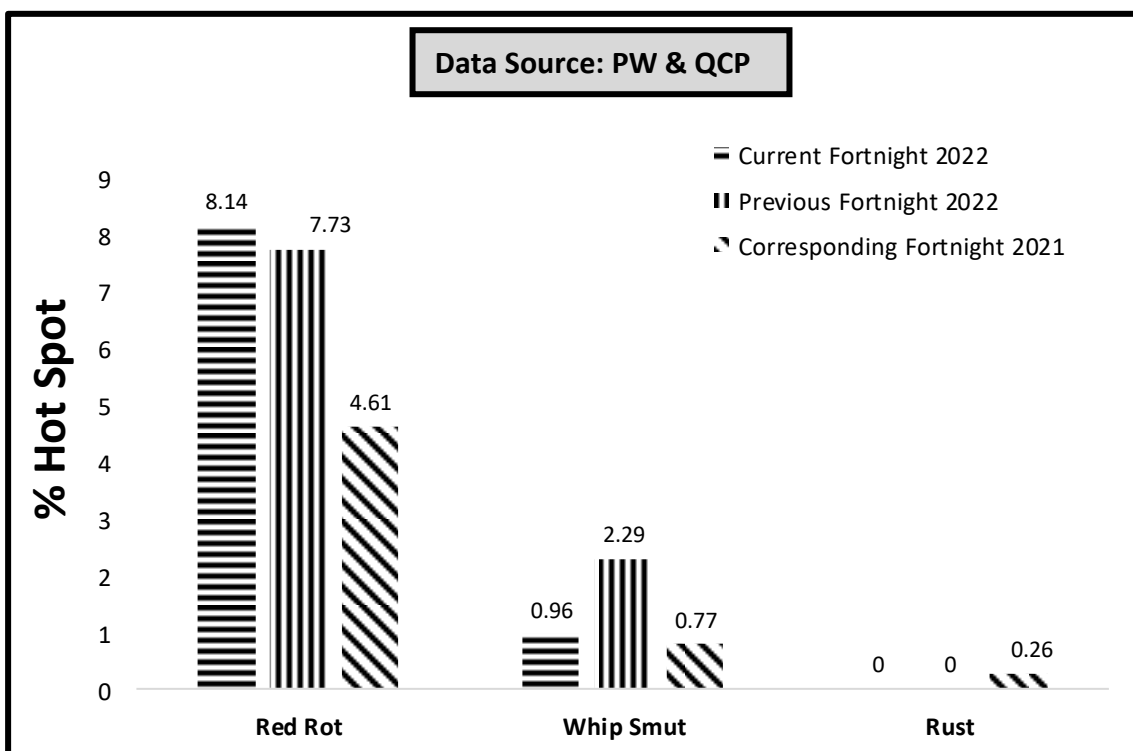
**Pest Situation of Sugarcane  
Crop in Punjab  
(15<sup>TH</sup> – 31<sup>ST</sup> OCTOBER 2022)**

# FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 2<sup>ND</sup> FORTNIGHT OF OCTOBER 2022

## A- Insect Pest



## B- Disease



## FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 2<sup>ND</sup> FORTNIGHT OF OCTOBER 2022

Pest Situation of Sugarcane Pests								
Sr. No.	Pest Name	%age of spots						Remarks
		Current F.Night 2022		Previous F.Night 2022		Corresponding F.Night of 2021		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	BORER	0.64	17.67	0.87	16.56	0.77	12.71	Decreasing
2	PYRILLA	1.61	20.45	3.38	23.86	1.19	15.44	Decreasing
3	WHITEFLY	3.21	18.09	4.58	22.88	2.73	17.58	Decreasing
4	BLACK BUG	0.11	3.85	0.11	5.34	0.00	1.28	Sustaining
-5	MITES	0.00	0.00	0.00	0.00	0.17	0.85	-
6	TOKA	0.00	11.56	0.11	13.07	0.00	10.15	Decreasing
7	MEALY BUO	0.21	-	0.11	-	0.34	-	<b>Increasing</b>
8	RED ROT	8.14	-	7.73	-	4.61	-	<b>Increasing</b>
9	WHIP SMUT	0.96	-	2.29	-	0.77	-	Decreasing
10	MOSAIC VIRUS	0.00	-	0.00	-	0.26	-	-
11	RUST	0.00	-	0.00	-	0.26	-	-

### METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2022				2021			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
<b>Multan</b>	36.1	18.5	62.7	0.0	32.4	17	66.82	0.0
<b>Khanewal</b>	34.1	19.3	52.5	0.0	32.9	18.1	68.24	0.0
<b>Vehari</b>	32.9	20.1	67.5	0.0	32.0	18.7	65.3	0.0
<b>Lodhran</b>	35.1	18.6	67.2	0.0	32.9	18.57	62.04	0.0
<b>Sahiwal</b>	30.1	16.5	64.5	0.0	29.5	16	65	0.0
<b>Pakpattan</b>	30.4	17.3	65.4	0.0	30.0	17	64	0.0
<b>Okara</b>	30.3	16.9	66.0	0.0	31.0	16.5	62	0.0
<b>Bahawalpur</b>	35.5	17.9	51.1	0.0	33.8	18.12	56.88	0.0
<b>Bahawalnagar</b>	33.7	16.5	62.4	0.0	32.0	19.09	59.36	0.0
<b>R.Y. Khan</b>	35.1	16.4	49.6	0.0	32.0	20	51.43	0.0
<b>D.G Khan</b>	35.1	21.6	71.1	0.0	34.2	17.93	56.43	0.0
<b>M. Garh</b>	32.3	21.1	69.7	0.0	31.7	18.08	52.83	3.0
<b>Rajanpur</b>	36.0	22.0	52.5	0.0	36.1	20.11	50.86	0.0
<b>Layyah</b>	30.0	19.5	69.0	0.0	31.9	20.2	73.3	0.0
<b>TOT/AVG</b>	<b>33.3</b>	<b>18.7</b>	<b>62.2</b>	<b>0.0</b>	<b>32.3</b>	<b>18.2</b>	<b>61.0</b>	<b>3.0</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 Punjab basis is as; maximum temperature **33.3** C°, minimum **18.7** C° with R. humidity **62.2**. 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 Punjab basis is as; maximum temperature 33.3 Co, minimum 18.7 Co with R. humidity 62.2. It is predicted that the population of this pest will decrease 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 Punjab basis is as; maximum temperature 33.3 Co, minimum 18.7 Co with R. humidity 62.2. It is predicted that the population of this pest will sustain during the next fortnight.

### **BLACK BUG**

This pest flourish best at optimum temperature 22.9-40.9C with relative R. humidity 46%. The current weather conditions on overall Punjab basis is as; maximum temperature 33.3 Co, minimum 18.7 Co with R. humidity 62.2. 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 Punjab basis is as; maximum

temperature 33.3 Co, minimum 18.7 Co with R. humidity 62.2. It is predicted that the population of this pest will sustain during the next fortnight.

### **MEALY BUG**

This pest flourish best at optimum temperature 29-40C with relative humidity 75-84%. The current weather conditions on overall Punjab basis is as; maximum temperature 33.3 Co, minimum 18.7 Co with R. humidity 62.2. 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°-40C and 70-80% respectively. The current weather conditions on overall Punjab basis is as; maximum temperature 33.3 Co, minimum 18.7 Co with R. humidity 62.2. 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°-36C and 20-40% respectively. The current weather conditions on overall Punjab basis is as; maximum temperature 33.3 Co, minimum 18.7 Co with R. humidity 62.2. 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 Punjab basis is as; maximum temperature 33.3 Co, minimum 18.7 Co with R. humidity 62.2. It is predicted that the population of this pest will sustain during the next fortnight.

### **RED ROT**

This disease flourish best at optimum temperature 25.5-26.5C with relative humidity 60. The current weather conditions on overall Punjab basis is as; maximum temperature 33.3 Co,

minimum 18.7 Co with R. humidity 62.2. It is predicted that the population of this pest will increase during the next fortnight.

### **WHIP SMUT**

This disease flourish best at optimum temperature 14-35C with relative humidity 55-80%. The current weather conditions on overall Punjab basis is as; maximum temperature 33.3 Co, minimum 18.7 Co with R. humidity 62.2. 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 33.3 Co, minimum 18.7 Co with R. humidity 62.2. 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