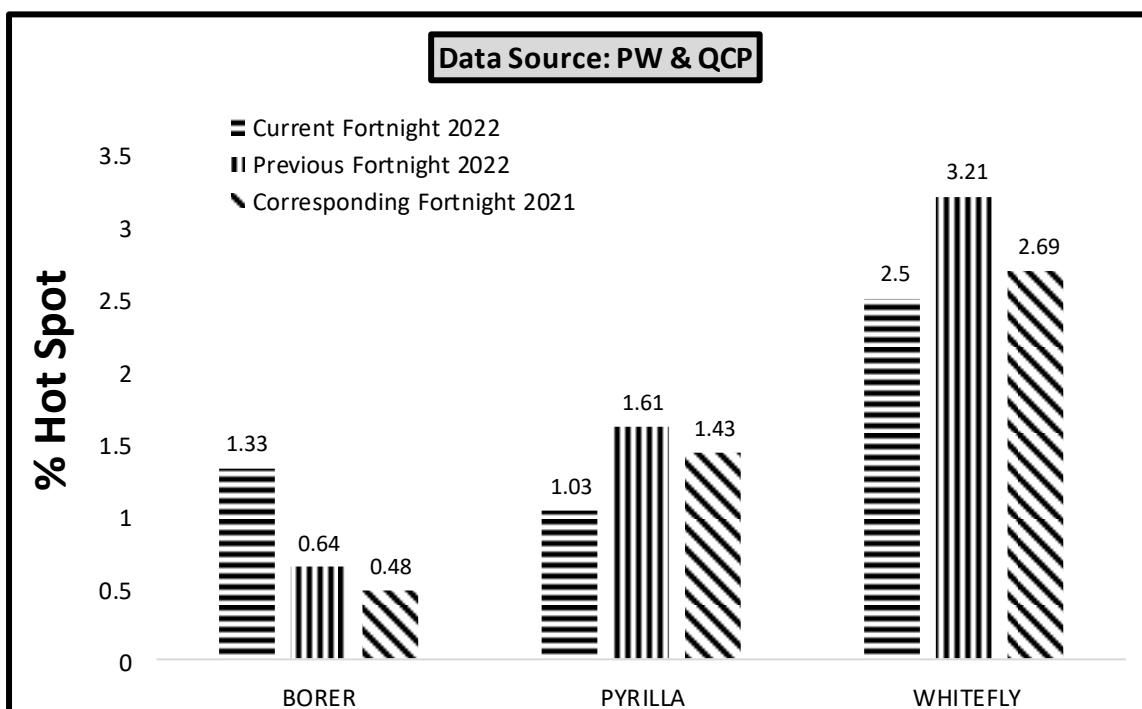


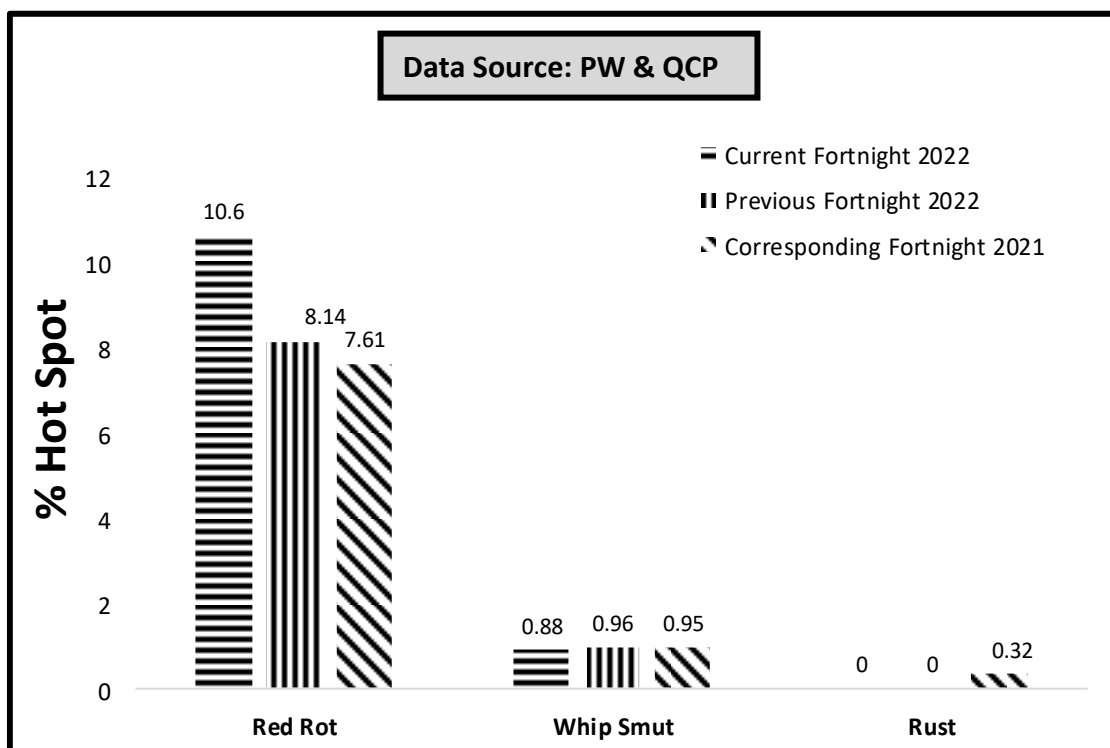
**Pest Situation of Sugarcane  
Crop in Punjab  
(1<sup>ST</sup> – 15<sup>TH</sup> NOVEMBER 2022)**

# GRAPHICAL PEST SITUATION ON SUGARCANE CROP IN PUNJAB FOR THE 1ST FORTNIGHT OF NOVEMBER 2022

## A- Insect Pest



## B- Disease



## FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 1<sup>st</sup> FORTNIGHT OF NOVEMBER 2022

<b>Pest Situation of Sugarcane Pests</b>								
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	1.33	16.94	0.64	17.67	0.48	12.68	<b>Increasing</b>
2	PYRILLA	1.03	12.22	1.61	20.45	1.43	11.41	Decreasing
3	WHITEFLY	2.50	14.58	3.21	18.09	2.69	17.75	Decreasing
4	BLACK BUG	0.00	3.98	0.11	3.85	0.00	1.43	-
-5	MITES	0.00	0.00	0.00	0.00	0.00	0.00	-
6	TOKA	0.00	6.77	0.00	11.56	0.00	2.85	-
7	MEALY BUO	0.15	-	0.21	-	0.00	-	<b>Increasing</b>
8	RED ROT	10.60	-	8.14	-	7.61	-	<b>Increasing</b>
9	WHIP SMUT	0.88	-	0.96	-	0.95	-	Decreasing
10	MOSAIC VIRUS	0.00	-	0.00	-	0.32	-	Decreasing
11	RUST	0.00	-	0.00	-	0.32	-	Decreasing

### METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2022				2021			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
<b>Multan</b>	33.3	17.2	62.4	0.0	29.1	16.2	63.8	0.0
<b>Khanewal</b>	31.4	17.5	61.1	0.0	30.0	16.3	61.6	0.0
<b>Vehari</b>	33.4	17.1	66.4	0.0	29.2	16.5	63.4	0.0
<b>Lodhran</b>	29.6	16.9	70.9	0.0	28.6	16.8	64.1	0.0
<b>Sahiwal</b>	29.3	14.3	67.5	0.0	29.0	14.0	65.00	0.0
<b>Pakpattan</b>	28.4	14.5	68.0	0.0	28.0	13.5	64.00	0.0
<b>Okara</b>	29.1	14.6	67.2	0.0	28.5	13	62.4	0.0
<b>Bahawalpur</b>	35.5	17.9	51.1	0.0	33.77	18.12	56.88	0.0
<b>Bahawalnagar</b>	31.2	18.2	69.0	0.0	29.54	13.13	64.08	0.0
<b>R.Y. Khan</b>	34.2	16.5	55.6	0.0	32.0	20	51.43	0.0
<b>D.G Khan</b>	29.79	18.07	69.55	0.0	32.00	16.43	57.21	0.0
<b>M. Garh</b>	29.40	17.20	62.00	0.0	31.67	18.08	52.83	0.0
<b>Rajanpur</b>	28.5	17.0	61.2	0.0	31.7	18.1	52.8	0.0
<b>Layyah</b>	27.50	18.00	67.00	0.0	29.42	16.90	74.07	0.0
<b>TOT/AVG</b>	<b>30.8</b>	<b>16.8</b>	<b>64.2</b>	<b>0.0</b>	<b>30.2</b>	<b>16.2</b>	<b>61.0</b>	<b>0.0</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 30.8 C°, minimum 16.8 C° with R. humidity 64.2%. It is predicted that the population of this pest will decrease 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 30.8 C°, minimum 16.8 C° with R. humidity 64.2%. It is predicted that the population of this pest will decrease during the next fortnight.

### **WHITEFLY**

This pest flourish best at optimum temperature 29-40 C with relative humidity 75-84%. The current weather conditions on overall Punjab basis is as; maximum temperature 30.8 Co, minimum 16.8 Co with R. humidity 64.2%. It is predicted that the population of this pest will decrease 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 30.8 Co, minimum 16.8 Co with R. humidity 64.2%. It is predicted that the population of this pest will decrease 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 30.8 Co, minimum 16.8 Co with R. humidity 64.2%. It is predicted that the population of this pest will decrease 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 30.8 Co, minimum 16.8 Co with R. humidity 64.2%. It is predicted that the population of this pest will decrease 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 30.8 Co, minimum 16.8 Co with R. humidity 64.2%. 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 30.8 Co, minimum 16.8 Co with R. humidity 64.2%. It is predicted that the population of this pest will decrease 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 30.8 Co, minimum 16.8 Co with R. humidity 64.2%. 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 30.8 Co,

minimum 16.8 Co with R. humidity 64.2%. 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 30.8 Co, minimum 16.8 Co with R. humidity 64.2%. 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 30.8 Co, minimum 16.8 Co with R. humidity 64.2%. 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