



**Pest Situation of Sugarcane  
Crop in Punjab  
(1<sup>ST</sup> – 15<sup>TH</sup> December 2020)**

**Directorate General  
Pest Warning & Quality Control of  
Pesticides Punjab, Lahore**

## FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 1<sup>ST</sup> FORTNIGHT OF DECEMBER 2020

<b>Pest Situation of Sugarcane Pests</b>								
		<b>%age of spots</b>						<b>Remarks</b>
<b>Sr. No.</b>	<b>Pest Name</b>	<b>Current Week</b>		<b>Previous week</b>		<b>Corresponding week of Last Year</b>		
		<b>AETL</b>	<b>BETL</b>	<b>AETL</b>	<b>BETL</b>	<b>AETL</b>	<b>BETL</b>	
1	BORER	0.00	5.45	0.00	4.41	0.00	3.73	Low
2	PYRILLA	0.00	3.22	0.00	2.73	0.00	3.90	Low
3	WHITEFLY	0.00	0.99	0.21	5.88	0.00	2.27	Low
4	BLACK BUG	0.00	0.00	0.00	0.63	0.00	0.49	-
5	MITES	0.00	0.00	0.00	0.00	0.00	0.00	-
6	TOKA	0.00	0.00	0.00	2.73	0.00	0.32	-
7	MEALY BUG	0.00	-	0.00	-	0.00	-	-
8	RED ROT	3.96	-	4.41	-	2.11	-	Decreasing
9	WHIP SMUT	0.25	-	0.21	-	0.49	-	Low
10	MOSAIC VIRUS	0.00	-	0.00	-	0.00	-	-
11	RUST	0.00	-	0.00	-	0.00	-	-

### METEOROLOGICAL DATA OF THE FORTNIGHT

<b>Districts</b>	<b>2020</b>				<b>2019</b>			
	<b>Temperature</b>		<b>R.H%</b>	<b>Rainfall (mm)</b>	<b>Temperature</b>		<b>RH%</b>	<b>Rainfall ( mm)</b>
	<b>Max.</b>	<b>Min.</b>			<b>Max.</b>	<b>Min.</b>		
<b>Multan</b>	22.90	10.90	72.20	6.00	22.40	10.90	78.80	2.00
<b>Khanewal</b>	23.60	10.30	67.50	5.00	22.30	9.10	68.10	12.00
<b>Vehari</b>	20.00	14.00	68.00	6.00	20.90	10.20	71.30	8.00
<b>Lodhran</b>	23.10	10.20	72.10	13.00	23.00	10.40	70.00	4.00
<b>Sahiwal</b>	23.80	11.00	76.55	2.00	23.50	7.50	65.45	0.00
<b>Pakpattan</b>	24.30	10.00	63.43	1.00	22.60	10.60	64.00	0.00
<b>Okara</b>	20.20	12.20	80.25	5.00	20.76	13.50	79.52	0.00
<b>Bahawalpur</b>	25.57	10.49	73.84	0.82	24.32	9.20	67.84	0.43
<b>Bahawalnagar</b>	24.96	11.04	67.25	0.00	24.58	8.29	59.25	0.67
<b>R.Y.Khan</b>	24.76	11.56	71.29	1.03	26.39	10.13	78.43	0.00
<b>D.G Khan</b>	24.07	5.80	68.79	1.00	23.80	11.60	53.62	0.00
<b>M. Garh</b>	19.40	8.10	63.65	1.00	23.70	9.63	75.25	0.00
<b>Rajanpur</b>	26.40	10.30	56.63	14.00	26.30	10.20	64.61	0.00
<b>Layyah</b>	22.07	9.36	75.29	6.00	21.71	7.64	81.28	6.00
<b>TOT/AVG</b>	<b>23.22</b>	<b>10.38</b>	<b>69.77</b>	<b>61.85</b>	<b>23.30</b>	<b>9.92</b>	<b>69.82</b>	<b>33.10</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 South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. It is predicted that the population of this pest will increase 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 South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. It is predicted that the population of this pest will increase 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 South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. 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 South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. 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 South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. It is predicted that the population of this pest may increase 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 South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. It is predicted that the population of this pest will sustain as such 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 South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. It is predicted that the population of this pest will may sustain as such 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 South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. It is predicted that the population of this pest will sustain as such 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 South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. It is predicted that this disease may sustain as such in the coming fortnight.

**RED ROT**

This disease flourish best at optimum temperature 25.5-26.5C with relative humidity 60%. The current weather conditions on overall South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. It is predicted that the incidence of this disease may increase in the coming fortnight.

**WHIP SMUT**

This disease flourish best at optimum temperature 14-35C with relative humidity 55-80%. The current weather conditions on overall South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. It is predicted that incidence is expected to sustain as such during the next fortnight.

**MOSAIC VIRUS**

This disease flourish best at optimum temperature 14-35C with relative humidity 55-80%. The current weather conditions on overall South Punjab basis is as; maximum temperature **22.94** C°, minimum **12.01** C° with R. humidity **69.05**. Incidence of this disease is not expected during the coming 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