



**Pest Situation of Sugarcane  
Crop in Punjab  
(15<sup>TH</sup> – 31<sup>ST</sup> MARCH 2020)**

## PEST SITUATION OF SUGARCANE CROP IN THE PUNJAB FOR THE

**2<sup>ND</sup> FORTNIGHT OF MARCH, 2020**

### PEST SITUATION ON SUGARCANE CROP

#### **BORER**

On overall Punjab, basis 10.19% spots below ETL have been observed as compared to 1.43% spots during the past fortnight and 3.91% during same corresponding period of the last year.

#### **WHITEFLY**

On overall Punjab basis 0.62% spots below ETL have been observed as compared to 0.57% spots during the past fortnight and 1.38% during same corresponding period of the last year.

#### **BLACK BUG**

On overall Punjab basis 10.80% spots below ETL have been observed as compared to 0.00% spots during the past fortnight and 7.13% during same corresponding period of the last year

#### **TOKA**

On overall Punjab basis 0.00% spots below ETL have been observed as compared to 0.00% spots during the past fortnight and 0.69% during same corresponding period of the last year

### METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2020				2019			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall ( mm)
	Max.	Min.			Max.	Min.		
<b>Multan</b>	26.80	16.00	73.30	19.00	25.00	16.30	74.10	0.00
<b>Khanewal</b>	25.80	15.00	71.90	20.00	26.90	15.90	62.90	0.00
<b>Vehari</b>	25.30	15.90	75.70	46.00	26.10	17.50	75.10	0.00
<b>Lodhran</b>	25.60	15.90	70.30	20.00	24.60	15.10	61.40	0.00
<b>Sahiwal</b>	24.00	15.00	78.00	21.00	25.00	17.00	74.00	0.00
<b>Pakpattan</b>	25.70	17.30	59.71	27.00	24.40	16.00	46.29	0.00
<b>Okara</b>	26.00	18.50	78.00	15.00	28.00	17.50	78.00	0.00
<b>Bahawalpur</b>	28.05	15.56	69.23	2.55	29.51	14.55	57.93	1.30
<b>Bahawalnagar</b>	28.21	17.75	65.67	2.33	29.79	16.38	51.29	0.00
<b>R.Y.Khan</b>	28.57	16.57	77.71	2.47	31.85	18.14	76.85	0.00
<b>D.G Khan</b>	27.21	17.07	65.29	41.00	33.00	19.14	66.22	1.00
<b>M. Garh</b>	21.83	13.58	44.93	10.00	26.06	16.02	61.33	5.00
<b>Rajanpur</b>	26.88	17.93	65.78	6.00	26.69	14.28	63.50	0.00
<b>Layyah</b>	23.00	12.93	72.07	41.00	27.36	13.79	52.64	11.00
<b>TOT/AVG</b>	<b>25.93</b>	<b>16.07</b>	<b>69.11</b>	<b>273.35</b>	<b>27.45</b>	<b>16.26</b>	<b>64.40</b>	<b>18.30</b>

## Weather forecast for Next 15 Days

Division	Dated	31/3	1/4	2/4	3/4	4/4	5/4	6/4	7/4	8/4	9/4	10/4	11/4	12/4	13/4	14/4
Multan	Max.Temp.	26	27	29	31	33	36	36	37	40	43	43	44	44	44	44
	Min.Temp.	19	16	16	15	17	20	24	24	24	22	22	23	23	23	23
	Humidity %	59	50	31	24	23	19	10	6	11	7	7	6	5	5	5
Sahiwal	Max.Temp.	26	29	29	31	33	35	34	36	37	41	40	42	42	43	43
	Min.Temp.	18	16	16	14	15	18	24	24	24	21	22	22	22	23	23
	Humidity %	51	42	33	26	24	20	14	11	10	10	9	6	5	7	7
Bahawalpur	Max.Temp.	30	30	31	32	34	37	37	37	39	43	43	44	44	44	44
	Min.Temp.	20	16	18	17	19	20	22	22	23	25	25	26	26	26	26
	Humidity %	36	38	21	23	22	17	9	8	8	7	6	6	6	6	6
D.G.Khan	Max.Temp.	26	27	30	32	34	37	36	38	40	43	43	44	44	44	44
	Min.Temp.	19	17	14	17	19	18	24	24	24	22	22	22	22	22	22
	Humidity %	55	50	25	23	23	19	11	6	9	7	6	6	6	8	8
Average Cotton Zone	Max.Temp.	<b>37.15</b>														
	Min.Temp.	<b>20.87</b>														
	Humidity %	<b>17.07</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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. It is predicted that the population of this pest will initiate 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. It is predicted that the population of this pest will initiate 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. It is predicted that the population of this pest will initiate 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. It is predicted that the population of this pest may sustain as such 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. It is predicted that the population of this pest may 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next

fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. It is predicted that the population of this pest will remain 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. It is predicted that the present climatic conditions may be favorable for the development of this disease 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. It is predicted that the incidence of this disease may decrease 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. It is predicted that the present climatic conditions are not favorable for the disease development so its incidence is expected to remain 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 25.93 C°, minimum 16.07 C° with R. humidity 69.11. Weather forecast for the next fifteen days is as; maximum temperature 37.15 C°, minimum 20.87 C° with R. humidity 17.07. 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.

**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

**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