




**Pest Situation of Sugarcane
Crop of Punjab
(1ST – 15TH JANUARY, 2019)**



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

**PEST SITUATION OF SUGARCANE CROP IN THE PUNJAB FOR THE
1ST FORTNIGHT OF JANUARY, 2019
PEST SITUATION ON SUGARCANE CROP**

BORERS

On overall Punjab basis, 1.27% below ETL spots have observed as compared to 1.68% spots during the past fortnight and 1.47% during same corresponding period of the last year.

PYRILLA

On overall Punjab basis 0.00%, spots below ETL have observed as compared to 4.61% spots during the past fortnight and 0.73% during same corresponding period of the last year.

WHITEFLY

On overall Punjab basis 0.00% spot below ETL have observed as compared to 0.42% spot during the past fortnight and 1.22% during same corresponding period of the last year.

TOKA

On overall Punjab basis 0.00% spot below ETL has observed as compared to 0.00% spots during the past fortnight and 0.98% during same corresponding period of the last year.

RED ROT

On overall Punjab basis 0.00% spot of Red Rot has observed as compared to 3.56% spots above ETL during the past fortnight and 1.22% during same corresponding period of the last year.

METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2019				2018			
	Temperature °C		R.H%	Rainfall (mm)	Temperature °C		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Multan	19.20	8.10	86.00	1.00	20.60	6.40	87.50	0.00
Khanewal	20.10	7.80	76.80	0.00	21.60	6.10	74.30	0.00
Vehari	18.00	8.60	70.00	6.00	17.00	8.50	58.60	0.00
Lodhran	19.60	7.00	73.50	0.00	20.30	5.40	62.90	0.00
Sahiwal	19.20	5.60	73.42	0.00	19.90	5.80	74.40	0.00
Pakpattan	17.30	8.60	94.57	0.00	17.10	8.40	94.60	0.00
Okara	20.20	6.20	88.00	0.10	21.20	5.20	92.00	0.00
Bahawalpur	20.33	6.23	75.75	0.00	22.72	5.93	70.19	0.00
Bahawalnagar	16.08	8.63	86.50	0.00	21.25	5.42	70.04	0.00
R.Y.Khan	22.62	7.19	72.25	0.00	23.64	6.76	69.38	0.00
D.G Khan	21.14	8.21	70.79	0.00	22.16	6.76	64.64	0.00
M. Garh	20.22	8.55	69.16	0.00	21.11	7.01	85.95	0.00
Rajapur	20.32	7.20	43.20	0.00	21.98	8.20	49.50	0.00
Layyah	19.16	6.91	42.16	0.00	18.66	7.08	41.66	0.00
TOT/AVG	19.53	7.49	73.01	7.10	20.66	6.64	71.12	0.00

Weather forecast for Next 15 Days

Division	Dated	14/ 1	15/ 1	16/ 1	17/ 1	18/ 1	19/ 1	20/ 1	21/ 1	22/ 1	23/ 1	24/ 1	25/ 1	26/ 1	27/ 1	28/ 1
Multan	Max.Temp.	19	21	20	20	22	23	18	19	18	18	19	21	22	22	21
	Min.Temp.	7	8	11	9	9	9	11	8	5	6	6	6	6	7	7
	Humidity %	30	37	36	33	35	31	33	31	32	29	27	24	12	9	9
Sahiwal	Max.Temp.	19	20	20	21	22	23	22	19	18	16	17	17	18	18	18
	Min.Temp.	5	6	8	6	7	8	12	11	9	7	7	8	8	9	9
	Humidity %	35	33	39	37	38	34	24	32	49	39	37	28	18	13	13
Bahawal pur	Max.Temp.	19	21	22	21	22	25	19	20	18	18	18	19	21	22	21
	Min.Temp.	7	9	12	11	10	10	9	7	4	4	6	6	6	6	6
	Humidity %	38	35	31	31	35	33	30	30	28	29	28	28	13	10	10
D.G.Khan	Max.Temp.	19	20	21	22	22	18	19	17	18	20	20	21	22	21	21
	Min.Temp.	8	7	10	10	10	11	11	7	5	5	6	6	6	6	7
	Humidity %	37	38	35	30	30	28	35	27	25	31	23	20	12	9	8
Average °Ctton Zone	Max.Temp.	19.97														
	Min.Temp.	7.72														
	Humidity %	27.90														

Optimum Temperature and Humidity of Sugarcane Insects

Insects	Optimum temperature (C*)	Relative Humidity (%)
Pyrilla	29C Retard at 43C	75-84
Borer	35-41C	65-70
Mealy bug	32C	50-60
Toka	28.5-33	60-70
Black Bug	22.9C- 40.9C	46
Mite	30-36	20-40
Termites	35-40	70-80
Red rot of Sugarcane	25.5-26.5°C	60%
Whip smut of sugarcane	14 to 35°C	55-80%
Rust of sugarcane	12° to 14°	80-85%
Sugarcane Mosaic Virus	35-41	Below 50%

FORECAST FOR THE NEXT FORTNIGHT

BORERS

The current weather Conditions on overall Punjab basis is as; maximum temperature 19.53 °C, minimum 7.49 °C with R. humidity 73.01%. Weather forecast for the next fifteen days is as; maximum temperature 19.97 °C, minimum temperature 7.72 °C with humidity 27.90%. It is predicted that the population of this pest will decrease during the next fortnight.

PYRILLA

The current weather Conditions on overall Punjab basis is as; maximum temperature 19.53 °C, minimum 7.49 °C with R. humidity 73.01%. Weather forecast for the next fifteen days is as; maximum temperature 19.97 °C, minimum temperature 7.72 °C with humidity 27.90%. It is predicted that the population of this pest will decrease during the next fortnight.

WHITEFLY

The current weather Conditions on overall Punjab basis is as; maximum temperature 19.53 °C, minimum 7.49 °C with R. humidity 73.01%. Weather forecast for the next fifteen days is as; maximum temperature 19.97 °C, minimum temperature 7.72 °C with humidity 27.90% It is predicted that the population of this pest may decrease during the next fortnight.

TOKA

The current weather Conditions on overall Punjab basis is as; maximum temperature 19.53 °C, minimum 7.49 °C with R. humidity 73.01%. Weather forecast for the next fifteen days is as; maximum temperature 19.97 °C, minimum temperature 7.72 °C with humidity 27.90%. It is predicted that the population of this pest may sustain at zero during the next fortnight.

RED ROT

The current weather Conditions on overall Punjab basis is as; maximum temperature 19.53 °C, minimum 7.49 °C with R. humidity 73.01%. Weather forecast for the next fifteen days is as; maximum temperature 19.97 °C, minimum temperature 7.72 °C with humidity 27.90%. It is predicted that the incidence of this disease may increase in 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*

TOKA MANAGEMENT

- ❖ For the management of Toka, eradicate the weeds along with water channels and field boundaries.
- ❖ In case its population exceeds ETL, dusting should be made with suitable insecticides around field bunds of Sugarcane.

RED ROT MANAGEMENT

- ❖ Select the seed for cultivation from diseased free crop.
- ❖ Cultivate resistant varieties.
- ❖ Cut and burn the diseased plants with stubbles.
- ❖ If diseased plants are observed in the fields then avoid ratooning of crop.
- ❖ Sowing of cane after dipping the sets in the solution of Thiaphenate Methyl.

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