Pest Situation of Sugarcane Crop in Punjab (15TH – 28TH FEBRUARY 2022)

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

FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 2nd FORTNIGHT OF FEBRUARY 2022

Pest Situation of Sugarcane Pests

Sr. No.	Pest Name	%age of spots						Remarks
		Current F.Night		Previous F.Night		Corresponding F.Night of Last Year		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	BORER	0.00	0.26	0.00	1.03	0.00	1.08	-
2	PYRILLA	0.00	0.00	0.00	0.00	0.00	0.00	-
3	WHITEFLY	0.00	1.31	0.00	0.34	0.00	0.00	-
4	BLACK BUG	0.00	0.00	0.00	0.00	0.00	0.00	-
-5	MITES	0.00	0.00	0.00	0.00	0.00	0.00	-
6	TOKA	0.00	0.78	0.00	0.00	0.00	0.00	-
7	MEALY BUG	0.00	-	0.00	-	0.27	-	Decreasing
8	RED ROT	0.78	-	0.34	-	0.00	-	**Increasing**
9	WHIP SMUT	0.00	-	0.00	-	0.00	-	-
10	MOSAIC VIRUS	0.00	-	0.00	-	0.00	-	-
11	RUST	0.00	-	0.00	-	0.00	-	-

METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2022				2021			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Multan	25.1	12.3	63.6	0.0	28.6	15.25	71.75	0.0
Khanewal	24.3	13.2	64.3	0.0	28.2	14.49	70.8	0.0
Vehari	24.2	12.5	62.7	0.0	27.9	13.79	67.39	0.0
Lodhran	24.8	12.3	61.7	0.0	27.1	14.79	71.6	0.0
Sahiwal	24.0	10.0	66.0	4.0	28.5	13	68	0.0
Pakpattan	23.4	10.2	67.5	2.0	28.0	13	60	0.0
Okara	22.1	11.0	68.0	5.0	27.5	11	72	0.0
Bahawalpur	26.6	11.0	62.1	1.4	29.7	13.07	63.14	0.0
Bahawalnagar	27.6	11.4	63.2	Traces	28.5	12.13	62.54	0.0
R.Y. Khan	27.4	11.4	62.4	0.0	30.0	12.8	49.8	0.0
D.G Khan	28.4	13.1	48.9	0.0	31.1	13.79	48.36	0.0
M. Garh	24.4	10.2	62.7	0.0	23.4	7.583	61.04	0.0
Rajanpur	29.7	13.2	58.6	0.0	21.0	19.08	58.87	0.0
Layyah	21.2	9.4	57.6	0.0	27.9	12.43	70.1	0.0
TOT/AVG	**25.2**	**11.5**	**62.1**	**12.4**	**27.7**	**13.3**	**64.0**	**0.0**

FORECAST FOR THE NEXT FORTNIGHT

BORERS

This pest flourish best at optimum temperature 35-41C^{o} with relative humidity below 65-70%. The current weather conditions on overall South Punjab basis is as; maximum temperature **25.2** C^{o}, minimum **11.5** C^{o} with R. humidity **62.1**. 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 South Punjab basis is as; maximum temperature **25.2** C^{o}, minimum **11.5** C^{o} with R. humidity **62.1**. It is predicted that the population of this pest will sustain 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 **25.2** C^{o}, minimum **11.5** C^{o} with R. humidity **62.1**. 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 South Punjab basis is as; maximum temperature **25.2** C^{o}, minimum **11.5** C^{o} with R. humidity **62.1**. 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^{o} % respectively. The current weather conditions on overall South Punjab basis is as; maximum temperature **25.2** C^{o}, minimum **11.5** C^{o} with R. humidity **62.1**. 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 South Punjab basis is as; maximum temperature **25.2** C^{o}, minimum **11.5** C^{o} with R. humidity **62.1**. 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 current weather conditions on overall South Punjab basis is as; maximum

temperature **39.1** C°, minimum **28.6** C° with R. humidity **56.0**. The current weather conditions on overall South Punjab basis is as; maximum temperature **25.2** C°, minimum **11.5** C° with R. humidity **62.1**. 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 South Punjab basis is as; maximum temperature **25.2** C°, minimum **11.5** C° with R. humidity **62.1**.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 South Punjab basis is as; maximum temperature **25.2** C°, minimum **11.5** C° with R. humidity **62.1**. 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 South Punjab basis is as; maximum temperature **25.2** C°, minimum **11.5** C° with R. humidity **62.1**. It is predicted that the population of this pest will sustain 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 South Punjab basis is as; maximum temperature **25.2** C°, minimum **11.5** C° with R. humidity **62.1**. It is predicted that the population of this pest will sustain during the next fortnight.

MOSAIC VIRUS

The current weather conditions on overall South Punjab basis is as; maximum temperature **25.2** C°, minimum **11.5** C° with R. humidity **62.1**. It is predicted that the population of this pest will sustain during the next fortnight.

RECOMMENDATIONS

BORERS MANAGEMENT

- Install cards of beneficial insects (*Trichograma*) 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