GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 2ND WEEK OF NOVEMBER, 2023
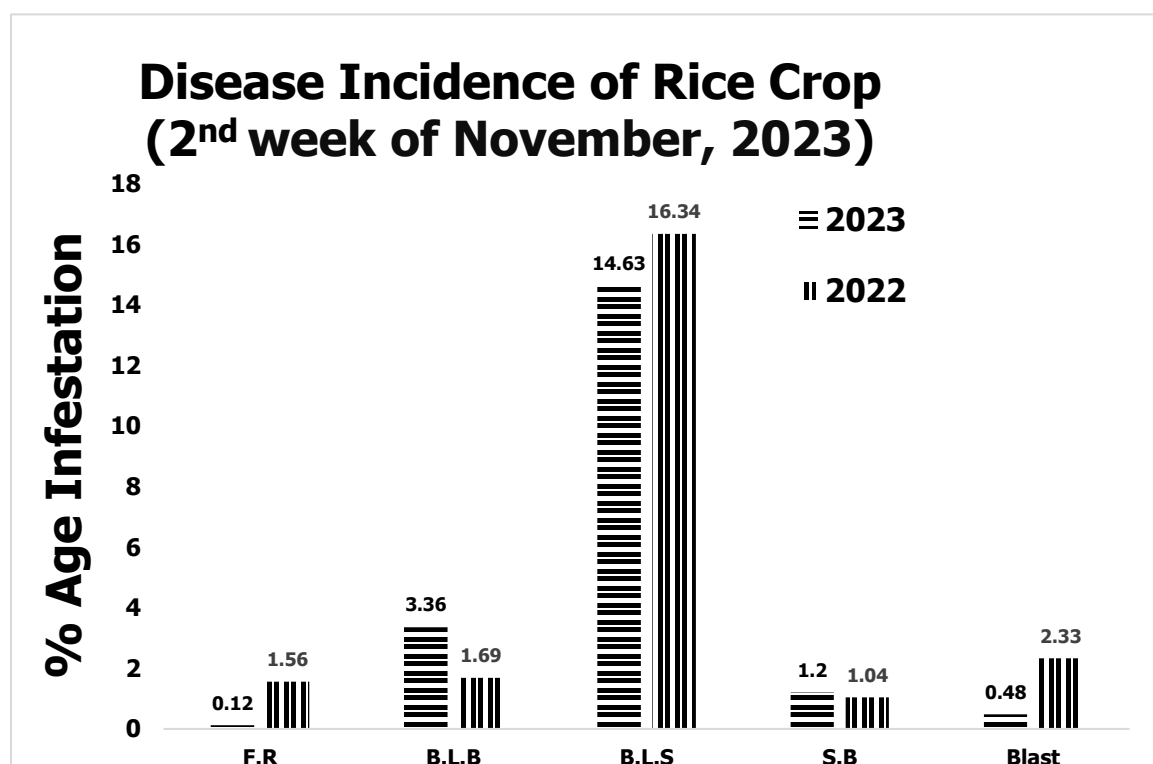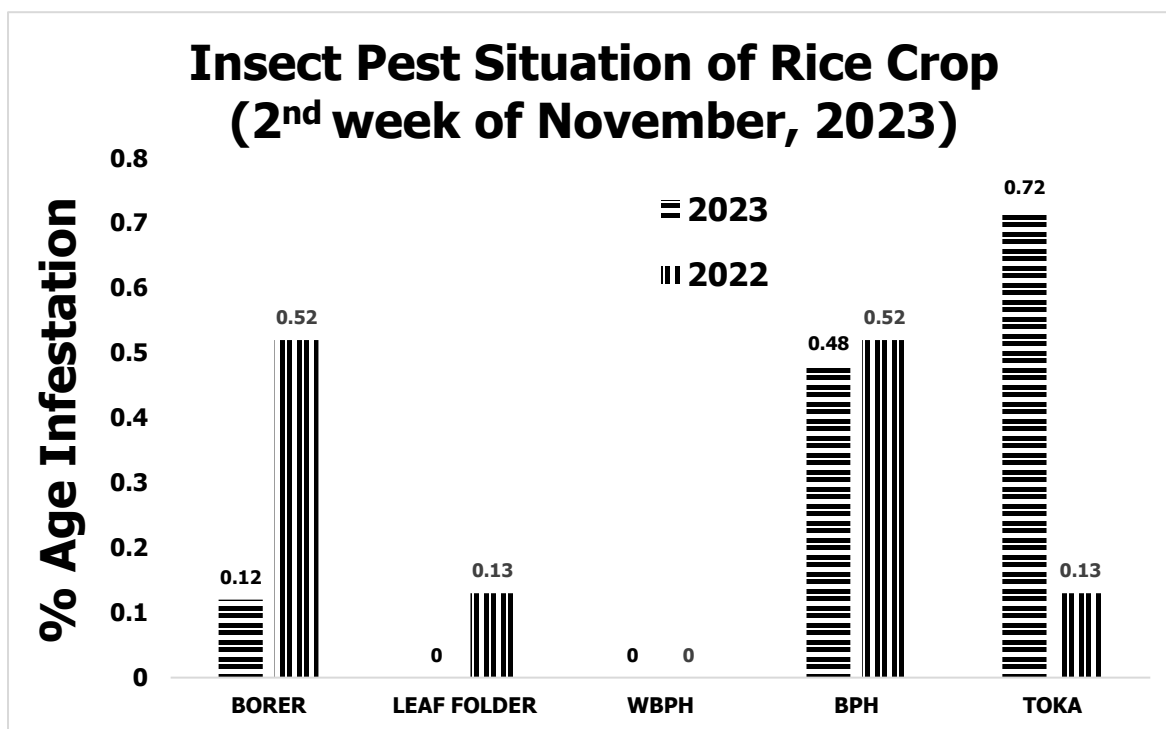
Insect Pest Situation of Rice Crop (2nd week of November, 2023)

% Age Infestation

Legend: 2023, 2022

Pest	2023	2022
BORER	0.12	0.52
LEAF FOLDER	0	0.13
WBPH	0	0
BPH	0.48	0.52
TOKA	0.72	0.13

Disease Incidence of Rice Crop (2nd week of November, 2023)

% Age Infestation

Legend: 2023, 2022

Disease	2023	2022
F.R	0.12	1.56
B.L.B	3.36	1.69
B.L.S	14.63	16.34
S.B	1.2	1.04
Blast	0.48	2.33

PEST SITUATION ON RICE CROP IN PUNJAB DURING 2ND WEEK OF NOVEMBER, 2023

Sr. No.	Pest Name	%Age of spots						Remarks
		Current Week		Previous Week		Corresponding week of Last Year		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	RICE BORER	0.12	3.60	0.08	7.12	0.52	7.39	**Increasing**
2	LEAF FOLDER	0.00	1.80	0.00	6.27	0.13	2.59	-
3	WPBH	0.00	2.04	0.00	1.47	0.00	0.26	-
4	BPH	0.48	3.36	0.00	6.19	0.52	8.04	**Increasing**
5	TOKA	0.72	15.59	1.39	17.03	0.13	21.27	Decreasing
6	FOOT ROT	0.12	-	0.31	-	1.56	-	Decreasing
7	B.L.B	3.36	-	4.72	-	1.69	-	Decreasing
8	B.L.S	14.63	-	16.33	-	16.34	-	Decreasing
9	SHEAT H BLIGHT	1.20	-	1.78	-	1.04	-	Decreasing
10	BLAST	0.48	-	1.55	-	2.33	-	Decreasing
NO. OF TOTAL SPOTS VISITED		834						
TOTAL AREA VISITED (Acres)		4670						

Table title: **Pest Situation of Rice Pests**

Tehsil wise percentage of hot spots of Rice Borer

Sr.	TEHSIL	%AGE
1	Ferozwala	8

Tehsil wise percentage of hot spots of Rice Leaf Folder

Nill

Tehsil wise percentage of hot spots of White-Backed Plant Hopper

Nill

Tehsil wise percentage of hot spots of Brown Plant Hopper

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Kot Radha Kishan	18	2	Kasur	11.8

Tehsil wise percentage of hot spots of Rice Toka

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sheikhupura	22	3	Muridke	8.3
2	Narang Mandi	9.1	4	Ferozwala	7.7

Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE
1	Muridke	8

Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Shujabad	33	7	Phalia	14.0
2	Jalal Pur	33.3	8	Hafizabad	12.0
3	Ferozwala	30.8	9	Sheikhupura	11.1
4	M.B.Din	25.0	10	Pindi Bhattian	9.1

5	Muridke	25.0	11	Noshehra Virkan	7.1
6	Malikwal	20.0			

Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Kabirwala	63	20	Gujranwala	16.7
2	Jalal Pur Jattan	50.0	21	Muridke	16.7
3	Sarai Alamgir	47.1	22	Bahawalnagar	16.7
4	Gujrat	44.4	23	Phalia	16.3
5	Quaidabad	44.4	24	Ferozwala	15.4
6	Safdarabad	40.0	25	Noshehra Virkan	14.3
7	Kharian	33.3	26	Sialkot	14.3
8	M.B.Din	31.3	27	Daska	14.3
9	Shakargarh	30.0	28	Nankana Sahib	14.3
10	Khanewal	30.0	29	Pasrur	12.9
11	Hasilpur	25.0	30	Shahkot	12.5
12	Sambrial	23.5	31	Mian Channu	11.8
13	Pindi Bhattian	22.7	32	Jahanain	11.1
14	Sheikhupura	22.2	33	Lahore	10.8
15	Sharqpur	22.2	34	Kamonke	10.0
16	Hafizabad	20.0	35	Zafarwal	10.0
17	Malikwal	20.0	36	Sangla Hill	6.3
18	Wazirabad	18.2	37	Chunian	5.3
19	Narowal	18.2	38	Pattoki	4.3

Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Ferozwala	38	3	Muridke	25.0
2	Gujranwala	33.3			

Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Mailsi	20	3	Bahawalnagar	16.7
2	Burewala	20.0	4	Pattoki	4.3

Meteorological data of the current week 2023

METEOROLOGICAL DATA FOR 2ND WEEK OF NOVEMBER 2023								
Districts	2023				2022			
	Temperature		R.H%	Rainfall	Temperature		RH%	Rainfall
	Max.	Min.		(mm)	Max.	Min.		(mm)
Gujranwala	25.0	15.0	72.0	15.0	34.5	26.5	72.5	0.0
Hafizbad	27.0	14.0	75.0	12.0	26.8	13.9	74.0	0.0
Sialkot	28.0	21.0	65.0	10.0	26.0	20.0	70.0	20.0
Narowal	24.5	11.0	73.5	10.0	24.8	11.5	72.8	5.0
Gujrat	26.9	13.8	72.0	10.0	27.0	14.0	76.0	0.0
M.B.Din	26.8	13.9	74.0	13.0	26.8	13.9	74.0	0.0
Lahore	26.1	15.6	75.1	0.0	26.3	15.0	64.6	0.0
Sheikhupura	27.4	13.9	58.9	0.0	26.7	13.6	61.7	0.0
Nankana	25.4	16.2	61.0	0.0	26.2	16.5	38.0	5.0
Kasur	30.7	18.7	32.9	0.7	27.1	15.7	53.2	0.0
Faisalabad	27.3	15.4	89.5	4.2	28.0	15.5	85.0	2.2
Jhang	26.3	13.2	65.1	0.0	27.5	16.1	63.2	0.0
Toba Tek Singh	28.0	16.9	89.7	0.2	27.8	15.7	84.5	0.0
Chiniot	24.8	16.2	55.8	12.0	30.0	16.8	53.3	0.0
Sargodha	26.0	13.0	49.0	0.0	29.0	14.0	40.0	0.0
Khushab	32.7	19.5	51.0	4.5	32.5	18.5	72.0	0.0
Mianwali	34.0	21.0	55.0	3.0	38.0	27.0	45.0	0.0
Bhakkar	32.0	19.0	43.0	0.0	34.0	18.0	48.0	0.0
Multan	31.3	18.7	71.6	0.0	31.3	16.3	62.0	0.0
Khanewal	28.4	15.8	60.5	0.0	29.6	15.9	65.1	0.0

**DIRECTORATE GENERAL OF PEST WARNING AND QUALITY CONTROL OF PESTICIDES
PUNJAB, LAHORE**

Vehari	28.0	16.6	69.5	0.0	31.7	16.3	60.6	0.0
Lodhran	26.1	17.1	64.7	0.1	29.1	15.7	69.9	0.0
Sahiwal	27.5	15.5	68.0	4.0	29.3	14.3	67.5	0.0
Pakpattan	28.1	16.5	67.5	2.0	28.4	14.5	68.0	0.0
Okara	26.6	15.3	66.0	0.0	29.1	14.6	67.2	0.0
Bahawalpur	28.7	17.1	70.2	0.0	28.8	16.2	69.3	0.0
Bahawalnagar	14.3	8.7	29.6	0.0	31.5	18.4	69.0	0.0
R.Y.Khan	34.8	21.5	61.8	0.0	32.0	17.8	36.4	0.0
D.G. Khan	26.1	17.5	55.9	0.0	31.5	26.7	69.6	0.0
Muzaffar Garh	25.5	17.2	60.5	0.0	29.5	22.5	58.0	0.0
Rajanpur	26.8	17.4	73.0	0.0	27.0	16.6	76.8	0.0
Layyah	24.6	15.0	70.0	0.0	25.2	16.2	68.9	0.0
TOT/AVG	**27.37**	**16.16**	**63.95**	**3.15**	**29.16**	**17.01**	**64.25**	**1.01**

Forecast of Rice Pests:

Borer: This pest flourishes best in warm humid climate with optimum temperature 17-30 °C with relative humidity between 45-80%. Based on the temperature outlook for the current week and the weather forecast for the next week, it is anticipated that the population of this pest might experience growth decline in the upcoming week. This projection is due to the continued unfavorable temperature conditions that support the pest's development.

Leaf Folder: This pest flourishes best in warm humid climate with optimum temperature 25-30°C. Based on the temperature outlook for the current week and the weather forecast for the next week, it is anticipated that the population of this pest might experience growth decline in the upcoming week. This projection is due to the continued unfavorable temperature conditions that support the pest's development.

White-backed plant hopper: This pest flourishes best in warm humid climate with optimum temperature 25-29°C with relative humidity between 80-90%. Keeping in view the temperature for current week and weather forecast of next week, it is predicted that population of this pest may decrease during the coming week as the temperature remain not favorable for the development of this pest.

Brown plant hopper: This pest flourishes best in warm humid climate with optimum temperature 28-30°C with relative humidity below 80-90%. Keeping in view the temperature for current week and weather forecast of next week, it is predicted that population of this pest may decrease during the coming week as the temperature remain not favorable for the development of this pest.

Toka: This pest flourishes best in warm humid climate with optimum temperature 24-40°C with relative humidity between 30-80%. Based on the temperature outlook for the current week and the weather forecast for the next week, it is anticipated that the population of this pest might experience growth decline in the upcoming week. This projection is due to the continued unfavorable temperature conditions that support the pest's development.

Foot rot: High humidity and cloudy weather during heading stage are favorable for the development of foot rot of rice. The fungus has a wide range of temperature for optimum growth which is between 30-35 °C. Based on the temperature forecast for the current week and the projected weather conditions for the next week, there is a prediction that the intensity of the disease might decrease in the upcoming week. This prognosis is based on the unfavorable temperature conditions that support the development of this particular disease.

Bacterial Leaf Blight: Heavy rain, heavy dew, flooding, deep irrigation water are favorable factors for the development of disease. Temperature for optimum growth is between 25-34 °C with relative humidity above 70%. Based on the temperature forecast for the current week and the projected weather conditions for the next week, there is a prediction that the intensity of the disease might decrease in the upcoming week. This prognosis is based on the unfavorable temperature conditions that support the development of this particular disease.

Brown Leaf spots: Non-flooded and nutrient deficient soils or soils with accumulation of toxic substances are favorable for the development of disease. Temperature for optimum growth is between 16-36 °C with relative humidity from 86-100%. Based on the temperature forecast for the current week and the projected weather conditions for the next week, there is a prediction that the intensity of the disease might decrease in the upcoming week. This prognosis is based on the unfavorable temperature conditions that support the development of this particular disease.

Sheath Blight: Crop plants during rainy season are more vulnerable to the disease. Temperature for optimum growth is between 28-32 °C with relative humidity from 85-100%. Based on the temperature forecast for the current week and the projected weather conditions for the next week, there is a prediction that the intensity of the

disease might decrease in the upcoming week. This prognosis is based on the unfavorable temperature conditions that support the development of this particular disease.

Blast: Intermittent drizzles, cloudy weather, more of rainy days, Low night temperature and longer duration of dew are favorable factors for the development of disease. Based on the temperature forecast for the current week and the projected weather conditions for the next week, there is a prediction that the intensity of the disease might decrease in the upcoming week. This prognosis is based on the unfavorable temperature conditions that support the development of this particular disease.

RECOMMENDATION

RICE BORER MANAGEMENT

- Handpick and destroy egg masses.
- Install light traps up to September to monitor moth population of stem borers.
- Use balanced Fertilizers (NPK) within 45 days after transplanting of nursery.
- Complete application of nitrogen up to 31st August because due to late application of nitrogenous fertilizer, the plant becomes succulent and dark-green which attracts the insects, and helps in their rapid multiplication along with increasing disease incidence.

BOWN LEAF SPOT MANAGEMENT

- Avoid water stress before maturity.
- Control the disease with one of the following pesticides.

S#	Common Name	Brand Name	Dose / Acre
1	Propineb 70 WP	Gift, Cover, Protest	800 gm
2	Mancozeb 80 WP	Shelter, Dithane-M	800 gm
3	Propiconazole 25 EC	Tilt	80 ml

FOOT ROT MANAGEMENT

- Uproot the diseased plants and destroy them.
- Use Potash 1 Bag within 14 days of transplanting.
- Flooding of Copper Sulphate 1.5-2 Kg/Acre.

BACTERIAL LEAF BLIGHT MANAGEMENT

- Use disease free seeds for next crop.
- Spray copper-based fungicides without delay when disease incidence is observed.

PADDY BLAST MANAGEMENT

- For leaf blast, re-flood if field has been drained. Maintain water level at 3-4inches to ensure that soil is covered.

- Avoid late use of nitrogenous fertilizers.

- Control the disease with one of the following fungicides;

S#	Common Name	Brand Name	Dose / Acre
1	Kasugamycin 6% WP	Fork	250 gm
2	Trifloxystrobin+Tebuconazole 75%WP	Nativo	65 gm
3	Azoxystrobin 25 % SC	Primacy	200 ml
4	Difenoconazole 250 EC	Score	125 ml

ECONOMIC THRESHOLD LEVELS OF RICE PESTS

INSECT PESTS	ECONOMIC THRESHOLD LEVELS
Borers (White, Yellow & Pink)	0.5% attack on rice nursery while 8-10 Moth/Trap/Night & 5% dead heart on rice crop.
Toka	3 per net on rice nursery & 5 on rice crop.
Leaf Folder	2 rolled leaves per plant in July-August & 3 rolled leaves per plant in September-October.
Brown Plant Hopper	15 Nymphs or Adults per plant in July-August & 20 Nymphs or Adults per plant in September-October. Or 7-10 Nymphs or Adults per net
White Backed Plant Hopper	15 Nymphs or Adults per plant in July-August & 20 Nymphs or Adults per plant in September-October. Or 7-10 Nymphs or Adults per net
Hispa	1 per plant
Diseases	On appearance