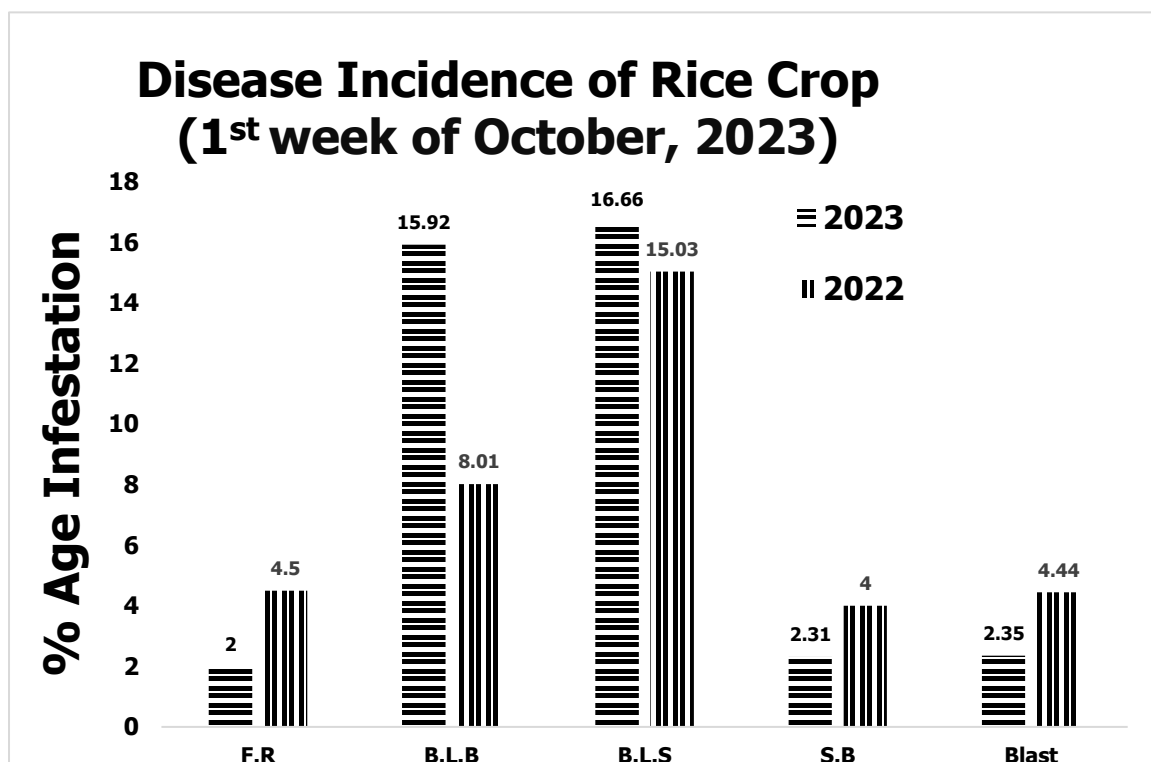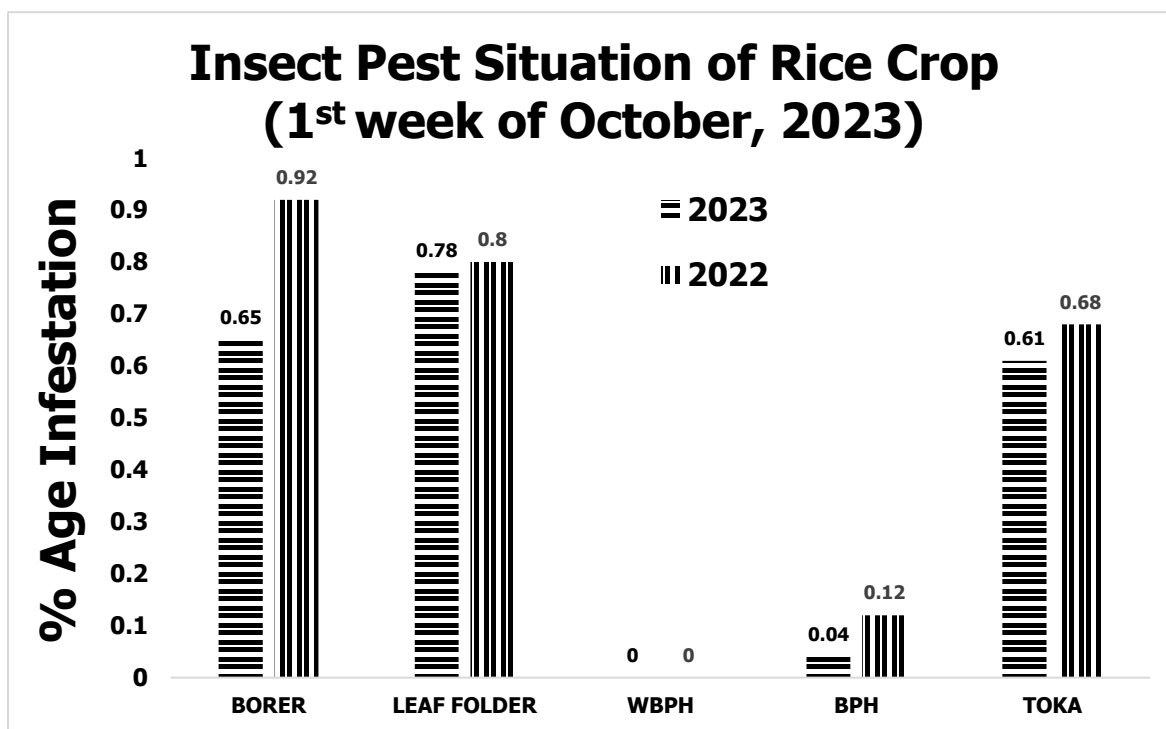# GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 1ST WEEK OF OCTOBER, 2023

Insect Pest Situation of Rice Crop
(1st week of October, 2023)

Disease Incidence of Rice Crop
(1st week of October, 2023)

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

PEST SITUATION ON RICE CROP IN PUNJAB DURING 1ST WEEK OF OCTOBER, 2023

Pest Situation of Rice Pests							
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	0.65	13.14	1.08	12.28	0.92	13.00	Decreasing
2	LEAF FOLDER	0.78	16.88	3.20	23.53	0.80	13.31	Decreasing
3	WPBH	0.00	0.39	0.00	0.74	0.00	2.03	-
4	BPH	0.04	3.39	0.04	1.47	0.12	5.61	Sustaining
5	TOKA	0.61	22.14	0.95	19.03	0.68	23.17	Decreasing
6	FOOT ROT	2.00	-	2.98	-	4.50	-	Decreasing
7	B.L.B	15.92	-	12.67	-	8.01	-	**Increasing**
8	B.L.S	16.66	-	13.24	-	15.03	-	**Increasing**
9	SHEAT H BLIGHT	2.31	-	3.81	-	4.00	-	Decreasing
10	BLAST	2.35	-	2.42	-	4.44	-	Decreasing
NO. OF TOTAL SPOTS VISITED		2299					
TOTAL AREA VISITED (Acres)		16462					

Tehsil wise percentage of hot spots of Rice Borer

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Bahawalpur	22	6	Minchanabad	9.7
2	Yazman	20	7	Ferozwala	4.7
3	Hasilpur	14.3	8	Jhang	4.4
4	Ahmadpur	12.5	9	Shorkot	4.4
5	Muzaffargarh	10			

Tehsil wise percentage of hot spots of Rice Leaf Folder

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Liaqautpur	67	7	Bahawalpur	11.1
2	Hasilpur	29	8	Ferozwala	4.7
3	Yazman	20	9	Jaranwala	1.7
4	Alipur	16.7	10	Lahore	1.6
5	Ahmadpur	12.5	11	Hafizabad	1.0
6	Muridke	11.4			

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
1	Shakargarh	3

Tehsil wise percentage of hot spots of Rice Toka

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Muridke	11	5	Gujrat	3.6
2	Narowal	8	6	Lahore	3.2
3	Narang Mandi	6	7	Sheikhupura	2.2
4	Ferozwala	4.7			

Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Liaqautpur	67	9	Narang Mandi	19.4
2	Khan pur	67	10	Sharqpur	13.6
3	Sadiqabad	50	11	Lodhran	10
4	Jatoi	28.6	12	Depalpure	10
5	Alipur	25	13	Muzaffargarh	10
6	Muridke	20	14	Safdarabad	8.7
7	Mailsi	20	15	Ferozwala	7
8	Burewala	20	16	Sheikhupura	6.7

Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Pasrur	69	25	Shahpur	15.4
2	Sahiwal	55	26	Kamonke	14.3
3	Gujranwala	50	27	Lahore	14
4	Baddomalhi	48.1	28	Khanewal	14
5	Sialkot	48	29	Sheikhupura	13
6	Sambrial	40	30	Jaranwala	13.3
7	Daska	38	31	Shahkot	12
8	Narowal	35	32	Muzaffargarh	10.0
9	Narang Mandi	33.3	33	Wazirabad	9.8
10	Jalalpur	33.3	34	Jalalpur Jattan	9.1
11	Zafarwal	32	35	Jahanain	8.3
12	M.B.Din	30.2	36	Pattoki	7.7
13	Noshehra Virkan	28.6	37	Sangla Hill	7.5
14	Pindi Bhattian	27.3	38	Safdarabad	6.5
15	D.G Khan	27.3	39	Nankana Sahib	6.5
16	Phalia	26.2	40	Minchanabad	6.5
17	Muridke	25.7	41	Kharian	6.3
18	Ferozwala	25.6	42	Silanwali	5.3
19	Shakargarh	25	43	Kot chutta	4.8
20	Shujabad	25	44	Gujrat	3.6
21	Hafizabad	23	45	Kamalia	3.4
22	Multan	20	46	Kasur	2.5
23	Taunsa	20	47	Chunian	2.3
24	Malikwal	18.5	48	Jhang	2.2

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

Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Bhalwal	100	30	Kot Radha Kishan	18.8
2	Sahiwal	100	31	M.B.Din	18.6
3	Narowal	69	32	Bhakkar	18
4	Silanwali	63.2	33	Sangla Hill	18
5	Bhera	63	34	Lahore	17
6	Shahpur	62	35	Pirmahal	17.4
7	Kabirwala	60	36	Phalia	17
8	R.Y.Khan	60	37	Chunian	16.3
9	Baddomalhi	59.3	38	Chak Jhumra	16.1
10	Sargodha	57.1	39	Khushab	16.1
11	Shakargarh	50	40	Minchanabad	16.1
12	Chistian	50	41	Pattoki	15.4
13	Bahawalnagar	50	42	Nankana Sahib	15.2
14	Sadiqabad	50	43	Bhowana	15.0
15	Ahmadpur	37.5	44	Chiniot	14.6
16	Jalal Pur Jattan	36.4	45	Khanewal	14.3
17	Khan pur	33.3	46	Kharian	12.5
18	Hafizabad	25	47	Pasrur	11.8
19	Gujrat	25	48	Malikwal	11.1
20	Jaranwala	25	49	Zafarwal	10.6
21	Safdarabad	23.9	50	Sambrial	10.4
22	Kamonke	23.8	51	Shahkot	10.2
23	Pindi Bhattian	23.6	52	Kamalia	8.6
24	Ferozwala	23.3	53	Narang Mandi	8.3
25	Muridke	22.9	54	Sheikhupura	6.7
26	Kot Momin	21.4	55	Jhang	4.4
27	Lalian	20.0	56	Wazirabad	3.9
28	Sarai Alamgir	19.2	57	Kasur	2.5
29	Sialkot	19.0	58	Gujranwala	2.3

Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Gujranwala	18	12	Sahiwal	5.0
2	Muridke	14	13	M.B.Din	4.7
3	Ferozwala	12	14	Chunian	5
4	Shakargarh	8.3	15	Sharqpur	5
5	Narang Mandi	8	16	Kot Radha Kishan	4
6	Noshehra Virkan	8	17	Phalia	2.4
7	Daska	8	18	Sheikhupura	2
8	Malikwal	7	19	Shahkot	2.0
9	Kot Momin	7.1	20	Wazirabad	2.0
10	Pattoki	5.1	21	Kamalia	1.7
11	Kasur	5	22	Lahore	1.6

Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	30	13	Pakpattan	8.3

2	Shahpur	23	14	Nankana Sahib	6.5
3	Muzaffargarh	20	15	Kot Radha Kishan	4
4	Depalpure	15.0	16	Shahkot	4
5	Sargodha	14	17	Kamalia	3
6	Kot Momin	14	18	Minchanabad	3.2
7	Chunian	12	19	Phalia	2
8	Silanwali	11	20	M.B.Din	2.3
9	Pattoki	10.3	21	Zafarwal	2.1
10	Sangla Hill	10.0	22	Pindi Bhattian	1.8
11	Lodhran	10	23	Lahore	1.6
12	Jhang	9	24	Hafizabad	1.0

Meteorological data of the current week 2023

METEOROLOGICAL DATA FOR 1ST WEEK OF OCTOBER 2023							
Districts	**2023**				**2022**		
	Temperature		**R.H%**	**Rainfall**	**Temperature**		**RH%**	**Rainfall**
	Max.	**Min.**		**(mm)**	**Max.**	**Min.**		**(mm)**
Gujranwala	32.5	21.0	52.0	0.0	34.5	26.5	72.5	0.0
Hafizbad	32.0	20.0	61.0	0.0	32.0	20.1	60.0	0.0
Sialkot	31.0	21.0	64.0	0.0	34.0	21.0	65.0	40.0
Narowal	31.9	21.0	86.7	0.0	30.7	20.0	81.9	30.0
Gujrat	32.0	20.4	62.0	0.0	32.0	20.1	60.0	0.0
M.B.Din	31.9	20.1	63.0	0.0	32.0	20.2	59.0	0.0
Lahore	34.3	22.8	65.7	0.0	26.3	18.4	40.3	0.0
Sheikhupura	35.2	23.7	40.0	0.0	34.7	24.5	42.0	0.0
Nankana	34.6	22.4	29.6	0.0	35.4	24.7	58.1	0.0
Kasur	33.4	21.6	69.2	0.0	35.6	22.2	63.4	0.0
Faisalabad	28.2	19.8	56.9	0.0	28.0	20.2	47.5	0.0
Jhang	35.4	20.5	46.4	0.0	37.2	22.1	47.5	0.0
Toba Tek Singh	36.3	20.6	76.7	0.0	37.9	23.4	75.0	0.0
Chiniot	35.8	22.0	76.0	0.0	36.3	24.3	60.0	0.0
Sargodha	37.0	20.0	0.0	26.0	35.0	20.0	0.0	26.0
Khushab	38.3	24.0	53.5	0.0	37.5	22.5	68.0	0.0
Mianwali	34.0	21.0	55.0	3.0	38.0	27.0	45.0	0.0
Bhakkar	37.1	22.0	44.0	0.0	41.0	27.0	49.0	0.0
Multan	39.0	25.0	65.0	0.0	38.1	23.1	63.1	0.0
Khanewal	37.5	25.1	55.3	0.0	37.7	23.7	60.7	0.0
Vehari	36.4	22.4	48.4	0.0	36.4	24.0	65.9	0.0
Lodhran	36.0	25.0	35.0	0.0	35.8	23.5	63.5	0.0
Sahiwal	34.3	23.2	76.0	0.0	36.3	22.0	72.0	0.0
Pakpattan	34.7	23.6	75.0	0.0	35.6	21.5	71.5	0.0
Okara	34.0	23.1	76.5	0.0	35.0	21.0	72.4	0.0
Bahawalpur	37.6	22.7	52.8	0.0	37.7	23.4	54.1	0.0
Bahawalnagar	37.3	22.1	66.5	0.0	38.1	24.6	55.5	0.0
R.Y.Khan	39.6	25.6	66.1	0.0	35.9	25.8	66.7	0.0
D.G. Khan	34.6	25.7	64.4	0.0	37.4	26.7	69.6	0.0
Muzaffargarh	38.9	25.0	58.5	0.0	33.4	21.6	62.3	0.0
Rajanpur	38.5	24.3	57.8	0.0	37.4	25.6	53.6	0.0
Layyah	37.0	18.0	48.0	0.0	35.0	23.0	78.0	0.0
Tot/Avg	**35.19**	**22.34**	**57.72**	**29.0**	**35.25**	**22.93**	**59.47**	**96.0**

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

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 in the upcoming week. This projection is due to the continued favorable 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 in the upcoming week. This projection is due to the continued favorable 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 increase 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 increase 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 in the upcoming week. This projection is due to the continued favorable 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 escalate in the upcoming week. This prognosis is based on the favorable 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 escalate in the upcoming week. This prognosis is based on the favorable 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 escalate in the upcoming week. This prognosis is based on the favorable 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 escalate in the upcoming week. This prognosis is based on the favorable 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 escalate in the upcoming week. This prognosis is based on the favorable 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