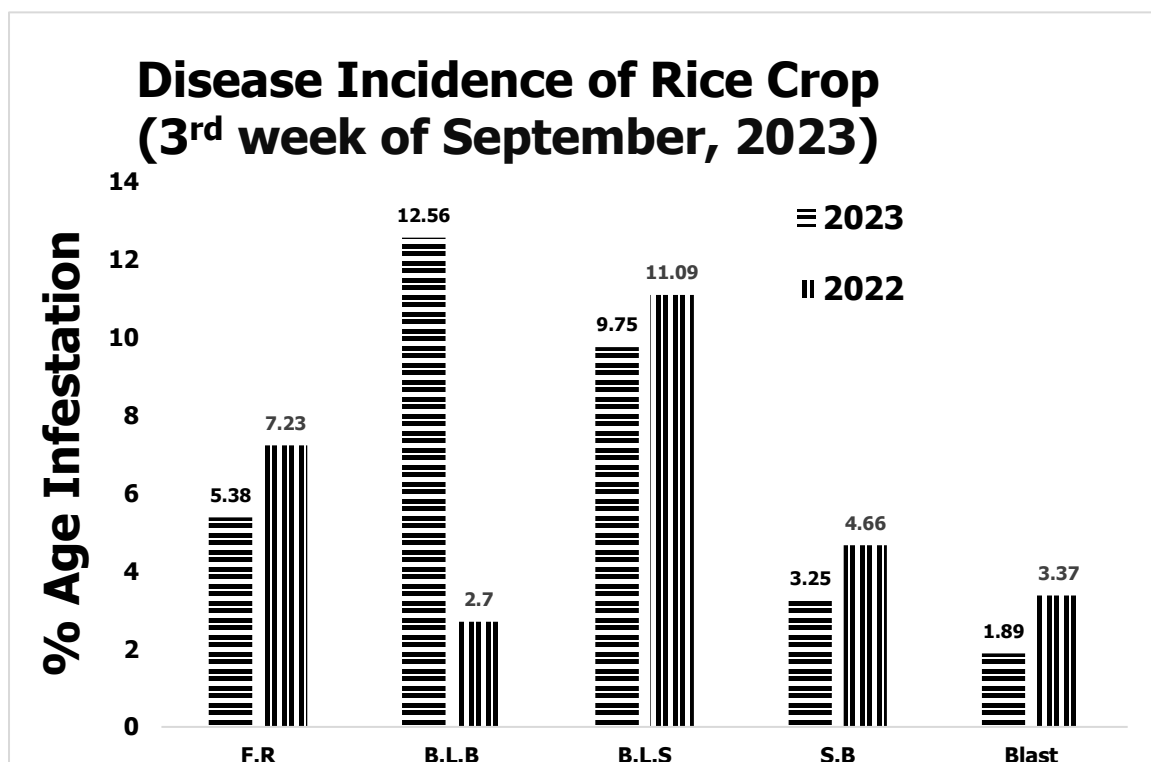
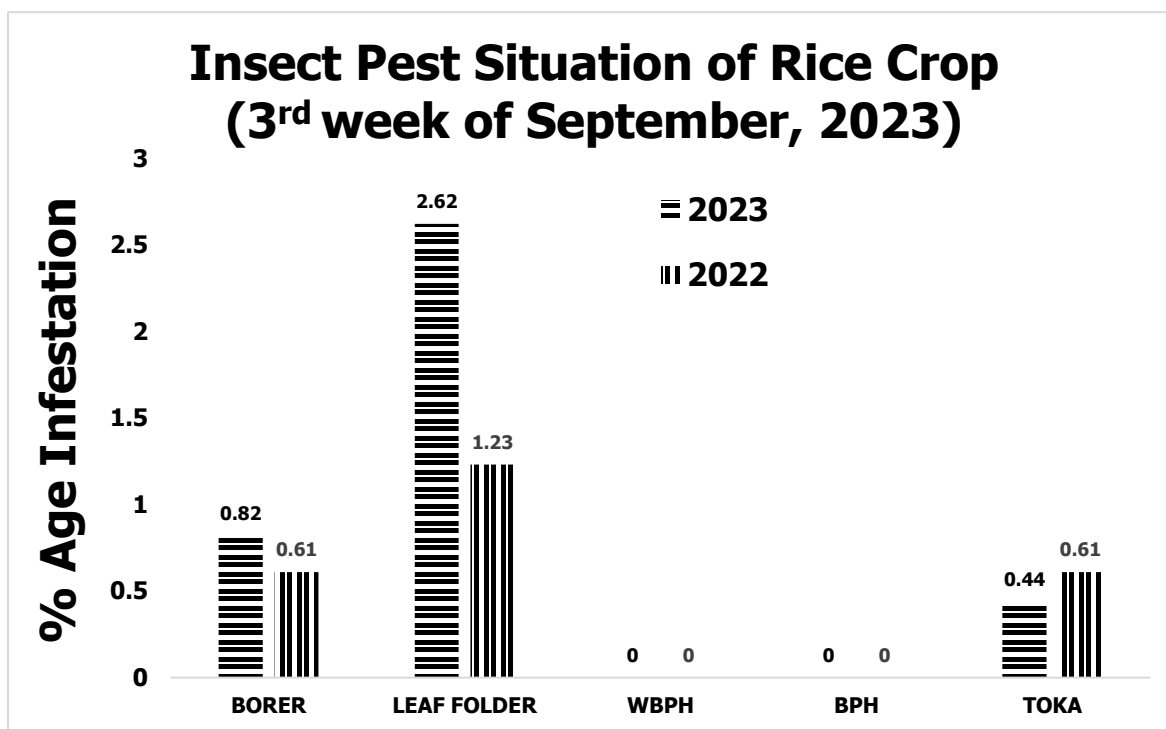


GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 3RD WEEK OF SEPTEMBER, 2023



PEST SITUATION ON RICE CROP IN PUNJAB DURING 3RD WEEK OF SEPTEMBER, 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	0.82	13.63	0.74	12.35	0.61	12.50	Increasing
2	LEAF FOLDER	2.62	23.86	1.72	14.81	1.23	18.63	Increasing
3	WPBH	0.00	0.87	0.00	0.10	0.00	0.92	-
4	BPH	0.00	1.02	0.00	0.49	0.00	1.47	-
5	TOKA	0.44	20.27	0.39	17.81	0.61	20.83	Decreasing
6	FOOT ROT	5.38	-	5.71	-	7.23	-	Increasing
7	B.L.B	12.56	-	8.71	-	2.70	-	Increasing
8	B.L.S	9.75	-	6.64	-	11.09	-	Increasing
9	SHEAT H BLIGHT	3.25	-	1.23	-	4.66	-	Increasing
10	BLAST	1.89	-	1.28	-	3.37	-	Increasing
NO. OF TOTAL SPOTS VISITED		2062						
TOTAL AREA VISITED (Acres)		16323						

Tehsil wise percentage of hot spots of Rice Borer

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Muzaffargarh	25	6	Pakpattan	6.7
2	Kabirwala	11.1	7	Sangla Hill	4.4
3	Minchanabad	8.8	8	Nankana Sahib	4.3
4	Shahkot	7.9	9	Kot Radha Kishan	2.5
5	Mian Channu	6.7	10	Lahore	1.9

Tehsil wise percentage of hot spots of Rice Leaf Folder

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Shakargarh	25	15	M.B.Din	5.7
2	Ahmadpur	25.0	16	Malikwal	5.6
3	Alipur	23.1	17	Shahkot	5.3
4	Khanewal	16.7	18	Kot Radha Kishan	5.0
5	Minchanabad	14.7	19	Sangla Hill	4.4
6	Mian Channu	13.3	20	Safdarabad	4.3
7	Muzaffargarh	12.5	21	Nankana Sahib	4.3
8	Kabirwala	11.1	22	Lalian	4.2
9	Bahawalpur	11.1	23	Sialkot	3.3
10	Hasilpur	10.0	24	Chak Jhumra	3.1
11	Lahore	7.4	25	Pindi Bhattian	2.9
12	Kot chutta	6.3	26	Kasur	2.3
13	Hafizabad	6.2	27	Kamalia	2.3
14	Phalia	5.9	28	Ferozwala	2.2

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

Nil

Tehsil wise percentage of hot spots of Brown Plant Hopper

Nil

Tehsil wise percentage of hot spots of Rice Toka

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Lahore	7	4	M.B Din	2.9
2	Ferozwala	4.4	5	Muridke	2.7
3	Narang Mandi	2.9			

Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Liaqutpur	100	23	Kot Radha Kishan	12.5
2	Khan pur	100	24	Silanwali	12.5
3	R.Y.Khan	66.7	25	Muzaffargarh	12.5
4	Bhalwal	50	26	Phalia	11.8
5	Sadiqabad	50	27	Shahkot	10.5
6	Alipur	38	28	Shahpur	9.1
7	Kot Momin	25	29	Depalpure	9.1
8	Jatoi	25	30	Narang Mandi	8.8
9	Bhera	20	31	Bhowana	8.3
10	Mailsi	20	32	Sangla Hill	6.7
11	Burewala	20	33	Sargodha	5.9
12	Sahiwal	20	34	Malikwal	5.6
13	Safdarabad	19.6	35	Sahiwal	4.5
14	Sharqpur	17.1	36	Khushab	4.5
15	Lodhran	16.7	37	Pindi Bhattian	2.9
16	Kamonke	16.3	38	M.B.Din	2.9
17	Muridke	16.2	39	Sambrial	2.6
18	Kharian	14.3	40	Kamalia	2.3
19	Ferozwala	13.3	41	Chiniot	2.0
20	Pakpattan	13.3	42	Lahore	1.9
21	Nankana Sahib	12.8	43	Sialkot	1.7
22	Sheikhupura	12.5			

Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Gujranwala	61	23	Pindi Bhattian	11.4
2	Pasur	52	24	Kabirwala	11.1
3	Sarai Alamgir	50.0	25	Shahkot	10.5
4	Baddomalhi	46	26	Zafarwal	10.0
5	Daska	43	27	Sheikhupura	8.3
6	Hafizabad	40	28	Lahore	7.4
7	Sambrial	37	29	Mian Channu	6.7
8	Sialkot	35	30	Nankana Sahib	6.4
9	Kamonke	30	31	Kot chutta	6.3
10	Narowal	29	32	Chunian	5.3
11	Noshehra Virkan	28	33	Khushab	4.5
12	Narang Mandi	26	34	Ferozwala	4.4

13	Phalia	23.5	35	Safdarabad	4.3
14	Malikwal	16.7	36	Shakargarh	4.2
15	Khanewal	16.7	37	Jhang	2.5
16	Muridke	16.2	38	M.B.Din	2.9
17	Wazirabad	14.3	39	Sambrial	2.6
18	M.B.Din	14.3	40	Kamalia	2.3
19	Sangla Hill	13.3	41	Chiniot	2.0
20	Jaranwala	12.5	42	Lahore	1.9
21	Muzaffargarh	12.5	43	Sialkot	1.7
22	D.G Khan	12.5			

Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Chistian	50	23	Sangla Hill	11.1
2	Bahawalnagar	50	24	Muridke	10.8
3	Baddomalhi	46.2	25	Hafizabad	10.8
4	Phalia	35	26	Nankana Sahib	10.6
5	Kot Radha Kishan	30	27	Sialkot	10.0
6	Pirmahal	30	28	Jaranwala	10.0
7	Shakargarh	29	29	Pattoki	9.8
8	M.B.Din	26	30	Chak Jhumra	9.2
9	Narowal	25	31	Sahiwal	9.1
10	Shujabad	25	32	Sheikhupura	8.3
11	Safdarabad	24	33	Bhowana	8.3
12	Zafarwal	22	34	Sambrial	7.9
13	Minchanabad	20.6	35	Shahkot	7.9
14	Khushab	18.2	36	Chiniot	7.8
15	Ferozwala	17.8	37	Kasur	7.0
16	Malikwal	16.7	38	Kamalia	6.8
17	Lahore	16.7	39	Silanwali	6.3
18	Bhalwal	16.7	40	Gujranwala	5.3
19	Jahanain	16.7	41	Jhang	5.0
20	Pindi Bhattian	14.3	42	Pasrur	4.9
21	Lalian	12.5	43	Noshehra Virkan	3.5
22	Sargodha	11.8			

Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Shakargarh	42	12	Safdarabad	6.5
2	M.B.Din	20	13	Sambrial	5.3
3	Phalia	17.6	14	Shahkot	5.3
4	Noshehra Virkan	14	15	Kot Radha Kishan	5.0
5	Sheikhupura	13	16	Nankana Sahib	4.3
6	Malikwal	11	17	Pindi Bhattian	2.9
7	Pasrur	8	18	Sharqpur	2.4
8	Muridke	8	19	Pattoki	2.4
9	Chunian	8	20	Kasur	2.3
10	Sialkot	7	21	Zafarwal	1.7
11	Ferozwala	7			

Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Muzaffargarh	25	10	Malikwal	5.6
2	Chunian	21	11	Sahiwal	4.5
3	Lodhran	16.7	12	Sangla Hill	4.4
4	Depalpure	14	13	Shakargarh	4.2
5	Phalia	12	14	Zafarwal	3.3
6	Shahkot	11	15	Minchanabad	2.9
7	Kot Radha Kishan	10	16	M.B.Din	2.9
8	Pakpattan	7	17	Kamalia	2.3
9	Nankana Sahib	6	18	Ferozwala	2.2

Meteorological data of the current week 2023

METEOROLOGICAL DATA FOR 3RD WEEK OF SEPTEMBER 2022								
Districts	2023				2022			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Gujranwala	33.8	23.6	60.0	22.0	34.5	26.5	72.5	0.0
Hafizabad	37.0	25.0	0.6	3.0	38.0	22.0	0.7	7.0
Sialkot	35.0	22.0	78.0	40.0	34.0	21.0	65.0	40.0
Narowal	31.2	20.2	82.8	20.0	33.2	21.2	81.6	10.0
Gujrat	36.9	25.0	0.7	3.0	37.0	25.0	0.7	9.0
M.B Din	37.0	24.0	0.6	4.0	36.8	22.0	0.7	8.0
Lahore	32.2	25.3	74.8	15.3	35.3	26.4	58.6	0.0
Sheikhupura	35.9	25.6	69.3	0.6	35.9	25.7	69.3	0.0
Nankana	33.2	22.5	62.0	5.2	34.5	24.7	42.0	0.0
Kasur	33.7	26.4	45.3	0.2	34.7	26.0	57.4	0.2
Faisalabad	35.6	25.6	73.6	8.6	37.0	25.8	73.7	0.4
Jhang	37.0	24.0	0.6	4.0	36.8	22.0	0.7	8.0
Toba Tek Singh	35.8	26.1	87.1	54.4	37.6	26.6	79.0	0.0
Chiniot	35.4	26.8	71.0	0.0	35.8	26.2	50.6	0.0
Sargodha	33.0	24.0	2.0	61.0	35.0	25.0	0.0	58.0
Khushab	38.7	27.5	68.7	0.0	35.5	24.5	79.0	0.0
Mianwali	38.0	32.0	41.0	0.0	37.0	23.0	51.0	0.0
Bhakkar	39.0	39.0	43.0	0.0	42.0	28.0	57.0	0.0
Multan	37.7	27.3	66.1	0.0	38.1	26.4	63.0	0.7
Khanewal	35.0	26.3	56.1	1.3	37.5	26.6	65.3	0.0
Vehari	36.6	27.0	62.4	0.3	36.9	26.9	65.6	0.0
Lodhran	35.8	25.5	70.2	1.5	36.4	25.0	69.6	0.0
Sahiwal	34.2	24.1	76.4	16.5	36.1	25.4	74.8	1.0
Pakpattan	34.6	24.0	76.0	5.6	35.8	24.6	72.4	0.0
Okara	34.8	24.6	75.8	8.5	36.0	25.0	72.0	0.0
Bahawalpur	36.6	26.8	70.9	2.0	38.5	26.0	62.1	0.0
Bahawalnagar	36.9	26.6	66.9	16.4	37.8	26.1	66.1	0.0
R.Y.Khan	36.9	27.4	63.8	0.0	38.4	26.1	44.7	0.0
D.G. Khan	39.1	31.4	56.3	0.0	37.1	28.3	62.1	0.0
Muzaffar Garh	36.8	26.3	52.0	0.0	36.2	26.4	60.0	3.0
Rajanpur	38.4	29.0	58.1	0.0	38.8	28.0	61.3	0.0
Layyah	38.6	19.2	44.0	0.0	31.2	20.0	78.0	2.0
TOT/AVG	35.95	25.94	54.88	293.4	36.41	25.07	54.89	147.3

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