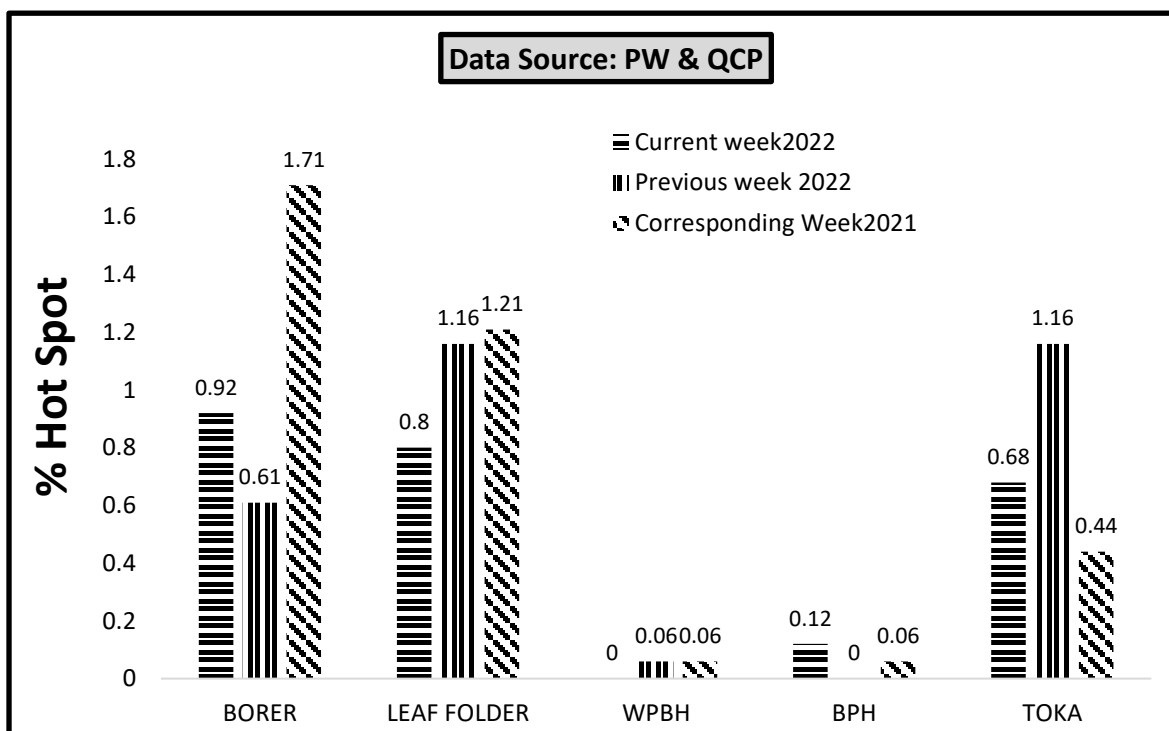
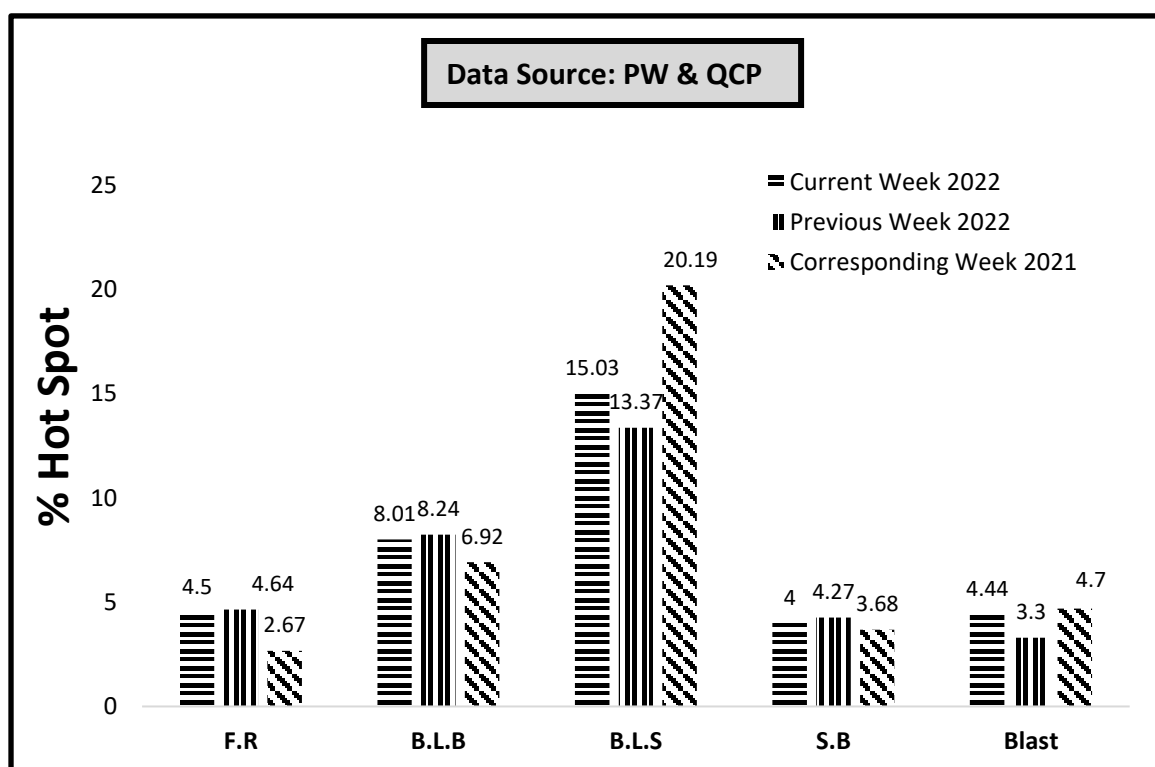


GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 1ST WEEK OF OCTOBER, 2022

A- Insect Pest



B- Disease



(**FR:** Foot Rot, **BLB:** Bacterial Leaf Blight, **BLS:** Brown Leaf spot, **SB:** Sheath Blight)

PEST SITUATION ON RICE CROP IN PUNJAB DURING 1ST WEEK OF OCTOBER, 2022

Pest Situation of Rice Pests								
		%Age of spots						Remarks
Sr. No.	Pest Name	Current Week		Previous Week		Corresponding week of Last Year		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	RICE BORER	0.92	13.00	0.61	13.06	1.71	14.98	Increasing
2	LEAF FOLDER	0.80	13.31	1.16	17.70	1.21	16.25	Decreasing
3	WPBH	0.00	2.03	0.06	2.32	0.06	1.46	Decreasing
4	BPH	0.12	5.61	0.00	3.85	0.06	4.63	Increasing
5	TOKA	0.68	23.17	1.16	21.92	0.44	21.08	Decreasing
6	FOOT ROT	4.50	-	4.64	-	2.67	-	Decreasing
7	B.L.B	8.01	-	8.24	-	6.92	-	Decreasing
8	B.L.S	15.03	-	13.37	-	20.19	-	Increasing
9	SHEAT H BLIGHT	4.00	-	4.27	-	3.68	-	Decreasing
10	BLAST	4.44	-	3.30	-	4.70	-	Increasing
NO. OF TOTAL SPOTS VISITED			1623					
TOTAL AREA VISITED (Acres)			11253					

Tehsil wise percentage of hot spots of Rice Borer

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Dunya Pur	40	6	Shujabad	20.0
2	Khanewal	33.3	7	Mian Channu	20.0
3	Kabirwala	33.3	8	Lodhran	20.0
4	Kehror Pacca	33.3	9	Multan	15.8
5	Bhakkar	25.0	10	Minchanabad	3.6

Tehsil wise percentage of hot spots of Rice Leaf Folder

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Shujabad	40	5	Lahore	7.0
2	Multan	10.5	6	M.B.Din	5.0
3	Phalia	8.3	7	Hafizabad	3.4
4	Bahawalpur	8.3	8	Pindi Bhattian	2.6

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

Nil

Tehsil wise percentage of hot spots of Brown Plant Hopper

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Minchanabad	4	2	Sheikhupura	2.0

Tehsil wise percentage of hot spots of Rice Toka

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Bhakkar	13	4	Lahore	7.0
2	Safdarabad	9.3	5	Sheikhupura	4.1

3	Narang Mandi	8.3		
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Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Jatoi	83	14	Nankana Sahib	18.8
2	Bhera	50.0	15	Pakpattan	17.6
3	Sangla Hill	45.5	16	Kehror Pacca	16.7
4	Muzaffargarh	40.0	17	Kot Addu	14.3
5	Shahkot	38.5	18	Lahore	11.6
6	Shahpur	37.5	19	Phalia	8.3
7	Khanewal	33.3	20	Muridke	8.2
8	Kabirwala	33.3	21	Malikwal	7.7
9	Sargodha	29.4	22	Bhowana	7.1
10	Silanwali	21.4	23	Sahiwal	7.1
11	Mian Channu	20.0	24	Kamalia	2.4
12	Lodhran	20.0	25	Sheikhupura	2.0
13	Dunya Pur	20.0	26	Khushab	1.4

Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Noshehra Virkan	41	17	Sahiwal	14.3
2	Taunsa	37.5	18	Zafarwal	13.2
3	Daska	36.8	19	Kharian	12.5
4	Baddomalhi	32.1	20	Sheikhupura	12.2
5	Sialkot	30.0	21	Lahore	9.3
6	Wazirabad	26.7	22	Pindi Bhattian	7.9
7	Narang Mandi	25.0	23	D.G Khan	7.7
8	Malikwal	23.1	24	Kot Momin	7.1
9	Jalal Pur Jattan	22.2	25	Hafizabad	6.8
10	Gujrat	20.8	26	Shahpur	6.3
11	Pasrur	20.0	27	Pattoki	6.1
12	M.B.Din	20.0	28	Safdarabad	4.7
13	Gujranwala	19.2	29	Muridke	4.1
14	Sambrial	17.2	30	Chunian	2.6
15	Phalia	16.7	31	Kamalia	2.4
16	Kot chutta	16.7			

Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	100	33	Wazirabad	16.7
2	Layyah	66.7	34	Lalian	16.7
3	Sadiqabad	66.7	35	Bhera	16.7
4	Narang Mandi	41.7	36	Vehari	16.7
5	Malikwal	38.5	37	Kehror Pacca	16.7
6	Gujrat	37.5	38	Chiniot	15.6
7	Kharian	37.5	39	Muridke	14.3
8	Narowal	35.7	40	Chak Jhumra	14.3
9	M.B.Din	35.0	41	Bhowana	14.3

10	Phalia	33.3	42	Silanwali	14.3
11	Pirmahal	33.3	43	Sahiwal	14.3
12	Chistian	33.3	44	Khushab	12.9
13	Bahawalnagar	33.3	45	Sharqpur	12.5
14	Liaqautpur	33.3	46	Nankana Sahib	12.5
15	Jhang	30.0	47	Shahpur	12.5
16	Baddomalhi	28.6	48	Gujranwala	11.5
17	Shakargarh	28.6	49	Shorkot	11.1
18	Safdarabad	25.6	50	Zafarwal	10.5
19	Bhakkar	25.0	51	Sheikhupura	10.2
20	Minchanabad	25.0	52	Kot chutta	8.3
21	Sargodha	23.5	53	Noshehra Virkan	8.1
22	Jaranwala	23.4	54	Daska	7.9
23	Shahkot	23.1	55	D.G Khan	7.7
24	Hafizabad	22.0	56	Kot Momin	7.1
25	Pattoki	21.2	57	Ferozwala	7.0
26	Lodhran	20.0	58	Sambrial	6.9
27	Dunya Pur	20.0	59	Pasrur	6.7
28	Karor	20.0	60	Sialkot	5.0
29	R.Y.Khan	20.0	61	Kamalia	4.9
30	Lahore	18.6	62	Kamonke	4.2
31	Pindi Bhattian	18.4	63	Chunian	2.6
32	Sangla Hill	18.2			

Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	67	13	Kot Radha Kishan	10.0
2	Narang Mandi	33.3	14	Ferozwala	9.3
3	Kamonke	25.0	15	Hafizabad	8.5
4	Sharqpur	25.0	16	Pindi Bhattian	7.9
5	Malikwal	23.1	17	Silanwali	7.1
6	Depalpure	18.8	18	Pakpattan	5.9
7	Pasrur	16.7	19	Sialkot	5.0
8	Phalia	16.7	20	Lahore	4.7
9	D.G Khan	15.4	21	Kasur	4.5
10	M.B.Din	15.0	22	Sheikhupura	4.1
11	Daska	10.5	23	Muridke	4.1
12	Sambrial	10.3	24	Safdarabad	2.3

Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	67	19	Sangla Hill	9.1
2	Jalal Pur	66.7	20	Pattoki	9.1
3	Layyah	33.3	21	Bhera	8.3
4	Depalpure	25.0	22	Shakargarh	7.1
5	Taunsa	25.0	23	Silanwali	7.1
6	Kot chutta	20.8	24	Minchanabad	7.1
7	Pirmahal	20.0	25	Pasrur	6.7
8	Shujabad	20.0	26	Nankana Sahib	6.3

9	Karor	20.0	27	Shahpur	6.3
10	Sargodha	17.6	28	Zafarwal	5.3
11	Pakpattan	17.6	29	Sialkot	5.0
12	Phalia	16.7	30	Kamalia	4.9
13	Shorkot	16.7	31	Kasur	4.5
14	Multan	15.8	32	Khushab	4.3
15	Shahkot	15.4	33	Sambrial	3.4
16	D.G Khan	15.4	34	Daska	2.6
17	Kot Momin	14.3	35	Chunian	2.6
18	Bhakkar	12.5	36	Chak Jhumra	2.4

Meteorological data of the current week 2022

METEOROLOGICAL DATA FOR 1ST WEEK OF OCTOBER 2022								
Districts	2022				2021			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Gujranwala	34.5	23.5	68.5	5.0	37.3	26.6	79.6	0.0
Hafizbad	35.5	25.0	63.0	0.0	34.5	26.0	60.0	0.0
Sialkot	34.0	31.8	39.6	0.0	39.2	28.7	50.7	21.0
Narowal	33.5	20.5	81.8	0.0	31.0	20.8	86.1	11.0
Gujrat	35.1	22.9	56.4	0.0	36.4	25.8	61.4	0.0
M.B.Din	36.0	19.0	0.7	2.0	36.0	18.9	0.7	0.0
Lahore	35.8	24.8	39.5	0.0	33.0	26.5	67.9	2.7
Sheikhupura	31.0	21.7	1.7	0.0	30.3	22.7	69.0	0.0
Nankana	34.7	24.5	42.0	0.0	33.5	23.2	46.0	7.0
Kasur	35.4	24.7	58.1	0.0	34.1	24.9	55.0	0.0
Faisalabad	36.3	23.2	70.1	0.0	36.0	25.3	72.1	0.0
Jhang	36.3	22.8	57.8	0.0	36.7	26.7	57.12	0.0
Toba Tek Singh	37.9	23.4	75.0	0.0	36.6	25.9	85.1	2.6
Chiniot	36.3	24.3	60.0	0.0	35.3	25.2	61.2	0.0
Sargodha	37.0	26.0	67.0	70.0	38.0	28.0	70.0	0.0
Khushab	37.5	22.5	68.0	0.0	36.5	24.5	72.0	0.0
Mianwali	37.0	22.0	50.0	0.0	36.0	21.0	48.0	0.0
Bhakkar	37.0	22.0	50.0	0.0	36.0	21.0	48.0	0.0
Multan	38.1	23.1	63.1	0.0	36.0	27.7	69.8	0.0
Khanewal	37.7	23.7	60.7	0.0	36.3	27.4	64.6	0.0
Vehari	36.4	24.0	65.9	0.0	35.0	28.0	66.6	1.0
Lodhran	35.8	23.5	63.5	0.0	34.5	26.0	73.8	3.0
Sahiwal	36.3	22.0	72.0	0.0	34.0	25.0	74.0	9.5
Pakpattan	35.6	21.5	71.5	0.0	35.0	26.0	72.0	12.2
Okara	35.0	21.0	72.4	0.0	34.0	24.0	73.0	8.6
Bahawalpur	37.7	23.4	54.1	0.0	36.9	26.1	70.3	23.5
Bahawalnagar	37.6	25.4	67.8	0.0	38.8	25.7	58.0	0.0
R.Y.Khan	35.9	25.8	66.7	0.0	38.5	24.9	47.4	0.0
D.G. Khan	35.4	24.4	66.8	0.0	35.1	23.4	54.9	0.0
Muzaffar Garh	33.8	22.5	62.3	0.0	35.5	24.5	55.8	0.0
Rajanpur	37.4	25.6	49.3	0.0	36.4	27.6	53.4	5.0
Layyah	35.0	23.0	78.0	0.0	41.0	23.0	65.0	0.0
TOT/AVG	35.89	23.55	58.22	77.0	35.73	25.03	62.14	107.1

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%. 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.

Leaf Folder: This pest flourishes best in warm humid climate with optimum temperature 25-30°C. 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.

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%. 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.

Foot rot: High humidity and cloudy weather during heading stage are favorable for the development of foot rot of rice. The fungus have a wide range of temperature for optimum growth which is between 30-35 °C. 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 favorable for the development of this 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%. 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 favorable for the development of this 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%. 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 favorable for the development of this 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%. 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 favorable for the development of this 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. 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 favorable for the development of this 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