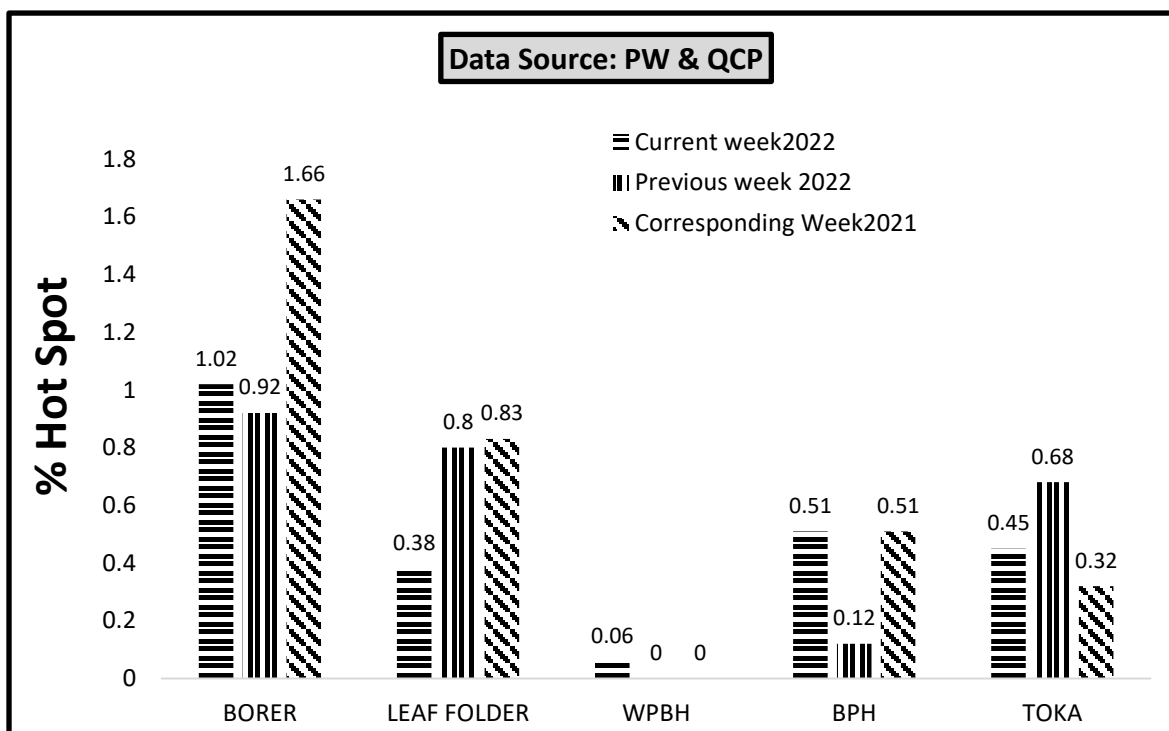
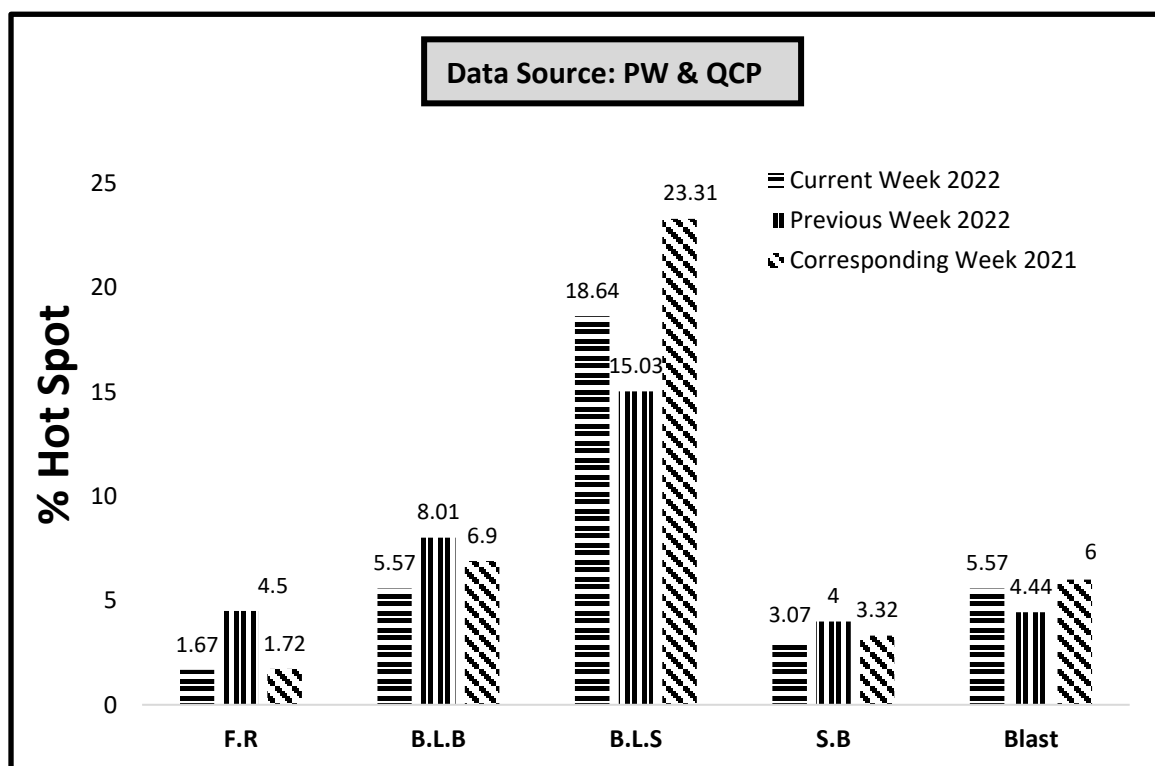


GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 2ND WEEK OF OCTOBER, 2022

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 2ND WEEK OF OCTOBER, 2022

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	1.02	15.63	0.92	13.00	1.66	15.13	Increasing
2	LEAF FOLDER	0.38	10.25	0.80	13.31	0.83	13.41	Decreasing
3	WPBH	0.06	2.24	0.00	2.03	0.00	0.77	Increasing
4	BPH	0.51	9.42	0.12	5.61	0.51	7.92	Increasing
5	TOKA	0.45	24.47	0.68	23.17	0.32	22.67	Decreasing
6	FOOT ROT	1.67	-	4.50	-	1.72	-	Decreasing
7	B.L.B	5.57	-	8.01	-	6.90	-	Decreasing
8	B.L.S	18.64	-	15.03	-	23.31	-	Increasing
9	SHEAT H BLIGHT	3.07	-	4.00	-	3.32	-	Decreasing
10	BLAST	5.57	-	4.44	-	6.00	-	Increasing
NO. OF TOTAL SPOTS VISITED		1561						
TOTAL AREA VISITED (Acres)		11700						

Tehsil wise percentage of hot spots of Rice Borer

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Jahanain	50	7	Multan	18.8
2	Mian Channu	28.6	8	Bhakkar	16.7
3	Lodhran	25.0	9	Kehror Pacca	16.7
4	Dunya Pur	25.0	10	D.G Khan	8.3
5	Shujabad	20.0	11	Minchanabad	4.0
6	Kot chutta	20.0	12	Pattoki	2.9

Tehsil wise percentage of hot spots of Rice Leaf Folder

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	M.B.Din	7	4	Hafizabad	3.8
2	Multan	6.3	5	Pindi Bhattian	2.5
3	Phalia	5.0			

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

Sr.	TEHSIL	%AGE
1	Sheikhupura	2

Tehsil wise percentage of hot spots of Brown Plant Hopper

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Chistian	17	4	Sheikhupura	4.0
2	Bahawalnagar	14.3	5	Muridke	2.2
3	Minchanabad	8.0	6	Safdarabad	2.0

Tehsil wise percentage of hot spots of Rice Toka

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Bhakkar	17	3	Lahore	3.9
2	Safdarabad	6.1	4	Sheikhupura	2.0

Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Kot Addu	57	8	Dunya Pur	25.0
2	Alipur	42.9	9	Pakpattan	15.4
3	Muzaffargarh	37.5	10	Depalpure	7.1
4	Kabirwala	33.3	11	Muridke	6.5
5	Kehror Pacca	33.3	12	Sahiwal	6.3
6	Jatoi	27.3	13	Lahore	2.0
7	Lodhran	25.0			

Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Bhalwal	50	17	Noshehra Virkan	9.1
2	Daska	37.5	18	Hafizabad	7.7
3	Malikwal	25.0	19	Kharian	7.7
4	Silanwali	23.1	20	Pakpattan	7.7
5	Sialkot	20.8	21	Pindi Bhattian	7.5
6	Phalia	20.0	22	Depalpure	7.1
7	Kot chutta	20.0	23	Safdarabad	6.1
8	Wazirabad	19.0	24	Baddomalhi	5.6
9	Sambrial	17.9	25	Kamonke	5.3
10	Gujranwala	16.7	26	Gujrat	5.3
11	D.G Khan	16.7	27	Ferozwala	5.3
12	Taunsa	16.7	28	Muridke	4.3
13	M.B.Din	14.3	29	Lahore	3.9
14	Zafarwal	14.0	30	Chunian	3.1
15	Pasrur	13.8	31	Sheikhupura	2.0
16	Sahiwal	12.5			

Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	100	33	Bhera	22.2
2	Jalal Pur Jattan	55.6	34	Zafarwal	22.0
3	Gujrat	52.6	35	Sialkot	20.8
4	Bhalwal	50.0	36	Sharqpur	20.0
5	Layyah	50.0	37	Sangla Hill	20.0
6	Malikwal	41.7	38	Jhang	20.0
7	Yazman	40.0	39	Shujabad	20.0
8	Baddomalhi	38.9	40	Muridke	17.4
9	Silanwali	38.5	41	Chak Jhumra	17.0
10	Phalia	35.0	42	Gujranwala	16.7
11	Lalian	34.5	43	Bhakkar	16.7
12	Khanewal	33.3	44	Kehror Pacca	16.7
13	Kabirwala	33.3	45	Ahmadpur	16.7

14	Chistian	33.3	46	Bhowana	15.4
15	M.B.Din	28.6	47	Shahpur	15.4
16	Chiniot	28.6	48	Khushab	14.6
17	Bahawalnagar	28.6	49	Kot Momin	14.3
18	Hasilpur	28.6	50	Sheikhupura	14.0
19	Minchanabad	28.0	51	Pasrur	13.8
20	Pindi Bhattian	27.5	52	Pirmahal	13.6
21	Shahkot	27.3	53	Ferozwala	13.2
22	Bahawalpur	27.3	54	Daska	12.5
23	Hafizabad	26.9	55	Shorkot	11.8
24	Safdarabad	26.5	56	AP Sial	11.1
25	Shakargarh	26.1	57	Sambrial	10.7
26	Pattoki	25.7	58	Nankana Sahib	10.5
27	Lahore	25.5	59	Wazirabad	9.5
28	Lodhran	25.0	60	Jaranwala	8.3
29	Dunya Pur	25.0	61	Kasur	6.7
30	Karor	25.0	62	Chunian	6.3
31	Kharian	23.1	63	Kamalia	5.3
32	Narowal	22.2	64	Noshehra Virkan	4.5

Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Bhalwal	50	12	Ferozwala	7.9
2	Sahiwal	26.3	13	Lahore	7.8
3	Silanwali	23.1	14	Sambrial	7.1
4	Phalia	20.0	15	Hafizabad	5.8
5	Malikwal	16.7	16	Jaranwala	5.6
6	D.G Khan	16.7	17	Pindi Bhattian	5.0
7	Taunsa	16.7	18	Muridke	4.3
8	M.B.Din	14.3	19	Kasur	3.3
9	Pasrur	10.3	20	Daska	3.1
10	Kot chutta	10.0	21	Sheikhupura	2.0
11	Sialkot	8.3			

Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sargodha	50	21	Pasrur	13.8
2	Jalal Pur	50.0	22	AP Sial	11.1
3	Sahiwal	36.8	23	Bhera	11.1
4	Taunsa	33.3	24	Sangla Hill	10.0
5	Kot chutta	30.0	25	Jaranwala	8.3
6	Layyah	25.0	26	Shahpur	7.7
7	Karor	25.0	27	M.B.Din	7.1
8	D.G Khan	25.0	28	Kot Momin	7.1
9	Shorkot	23.5	29	Daska	6.3
10	Pirmahal	22.7	30	Phalia	5.0
11	Depalpure	21.4	31	Khushab	4.9
12	Pattoki	20.0	32	Noshehra Virkan	4.5
13	Shujabad	20.0	33	Shakargarh	4.3
14	Multan	18.8	34	Zafarwal	4.0
15	Shahkot	18.2	35	Minchanabad	4.0
16	Bhakkar	16.7	36	Lahore	3.9
17	Chistian	16.7	37	Nankana Sahib	3.5
18	Pakpattan	15.4	38	Kasur	3.3

19	Sambrial	14.3	39	Ferozwala	2.6
20	Bahawalnagar	14.3	40	Kamalia	2.6

Meteorological data of the current week 2022

METEOROLOGICAL DATA FOR 2ND 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
Hafizabad	34.5	20.0	62.0	0.0	35.0	21.0	60.0	0.0
Sialkot	47.0	31.8	39.6	11.0	39.2	28.7	50.7	21.0
Narowal	30.5	18.5	80.1	10.0	32.4	20.3	79.4	0.0
Gujrat	31.0	21.0	65.0	72.0	34.8	24.5	62.0	0.0
M.B.Din	34.0	19.0	0.7	2.0	33.5	19.2	71.2	3.0
Lahore	31.7	21.7	59.9	0.5	37.7	30.3	77.6	3.1
Sheikhupura	32.6	21.7	48.0	4.0	33.7	22.2	38.0	0.0
Nankana	32.1	23.6	58.1	0.0	34.4	24.0	47.0	0.0
Kasur	30.8	20.3	1.7	0.0	30.3	21.3	72.7	0.0
Faisalabad	34.9	22.7	72.9	34.4	35.8	23.9	69.2	0.0
Jhang	22.4	34.4	59.2	0.0	36.3	25.3	56.9	0.0
Toba Tek Singh	34.9	17.8	81.0	5.0	36.6	26.5	84.3	0.0
Chiniot	30.7	25.0	71.0	0.0	36.2	25.3	70.1	0.0
Sargodha	37.0	26.0	67.0	70.0	38.0	28.0	70.0	0.0
Khushab	34.5	21.5	72.0	0.0	25.5	38.5	75.0	68.0
Mianwali	34.0	19.0	0.7	2.0	33.5	19.2	71.2	3.0
Bhakkar	37.0	22.0	50.0	0.0	36.0	21.0	48.0	0.0
Multan	35.0	21.6	66.3	0.0	35.6	23.6	68.4	0.0
Khanewal	35.3	22.4	65.6	0.0	36.0	23.8	64.6	0.0
Vehari	34.1	20.9	70.2	0.0	36.0	24.1	61.1	0.0
Lodhran	33.6	22.8	71.0	0.0	35.0	23.0	71.0	0.0
Sahiwal	31.5	20.1	73.1	0.0	35.0	22.0	67.0	0.0
Pakpattan	32.0	20.5	72.4	0.0	36.0	23.0	71.0	0.0
Okara	31.0	21.2	72.5	0.0	34.0	24.0	72.0	0.0
Bahawalpur	37.7	23.4	54.1	0.0	36.9	26.1	70.3	23.5
Bahawalnagar	33.6	22.6	67.4	0.0	36.1	23.4	67.5	0.0
R.Y.Khan	37.1	21.4	42.8	0.0	37.4	24.6	34.0	0.0
D.G. Khan	33.5	23.5	61.5	0.0	34.5	27.0	68.0	0.0
Muzaffar Garh	34.2	22.1	68.2	0.0	35.0	22.1	58.0	3.0
Rajapur	36.3	28.8	48.5	0.0	40.6	25.7	50.8	0.0
Layyah	34.0	21.0	74.0	0.0	34.0	22.0	56.0	0.0
TOT/AVG	47.08	22.55	58.28	7.20	35.26	24.38	64.45	3.89

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.

BROWN 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