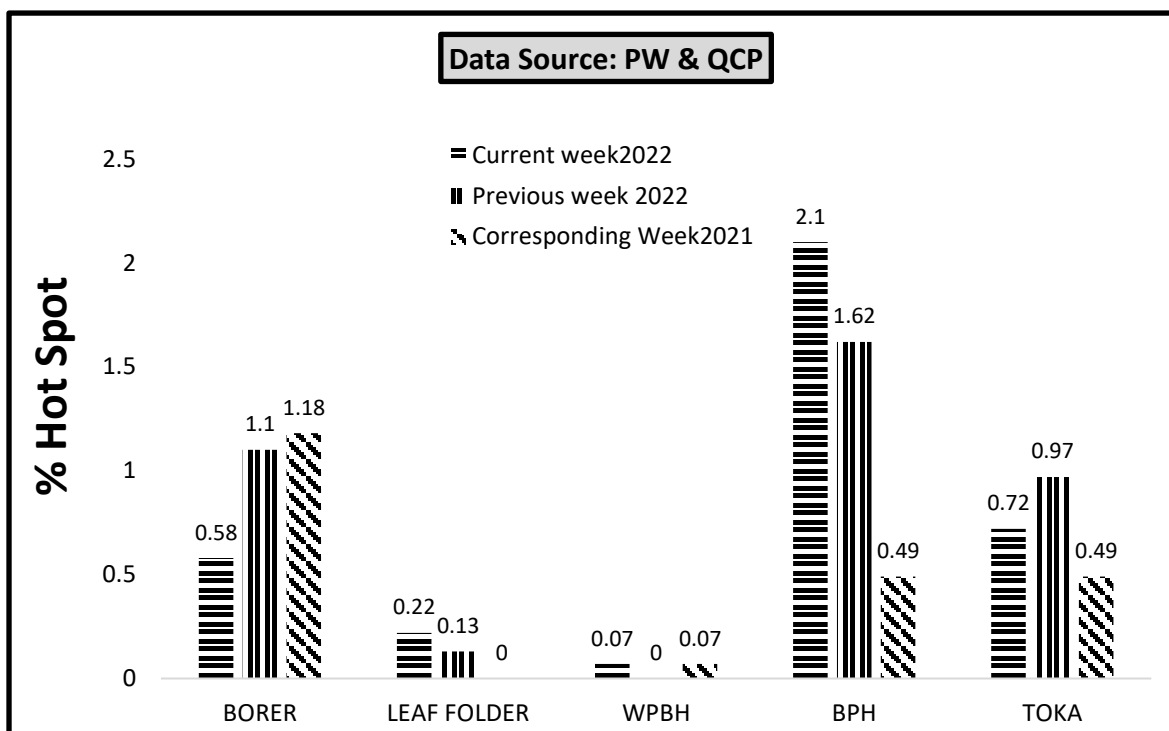
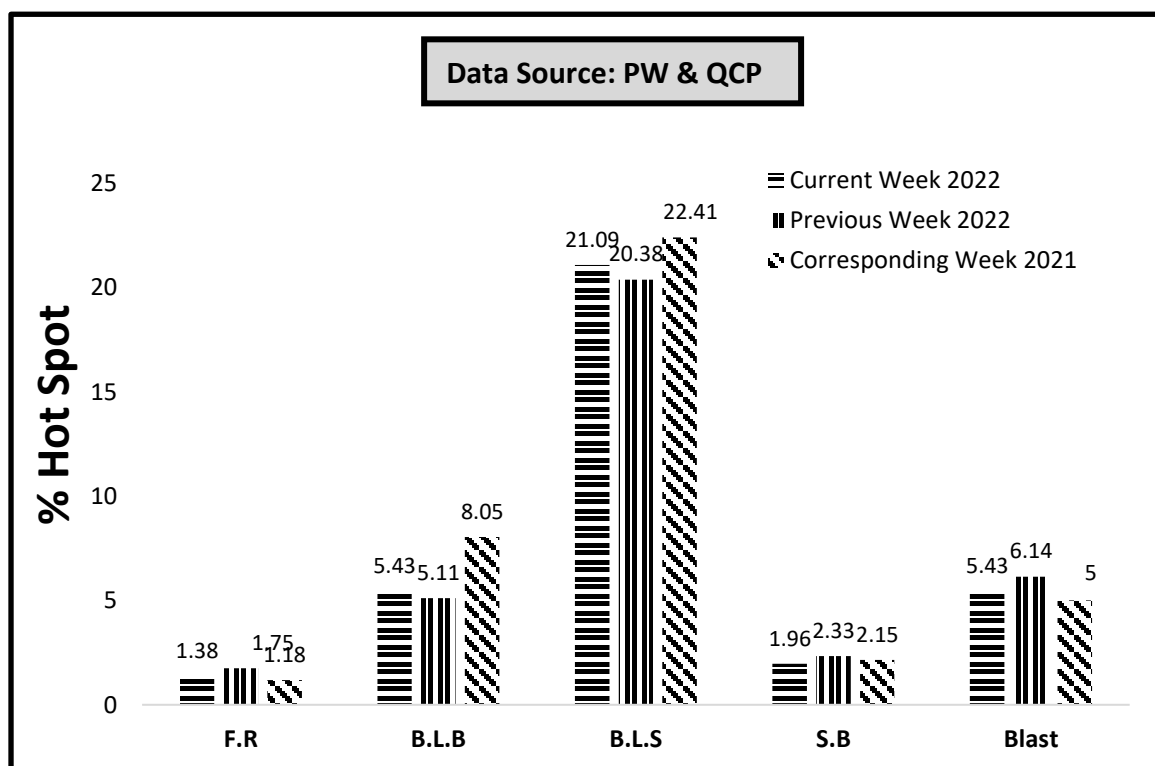


GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 4th WEEK OF OCTOBER, 2022

A- Insect Pest



B- Disease



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

PEST SITUATION ON RICE CROP IN PUNJAB DURING 4th 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	0.58	14.28	1.10	16.17	1.18	14.09	Decreasing
2	LEAF FOLDER	0.22	4.20	0.13	6.34	0.00	3.40	Increasing
3	WPBH	0.07	1.96	0.00	2.91	0.07	2.36	Increasing
4	BPH	2.10	13.04	1.62	13.58	0.49	8.19	Increasing
5	TOKA	0.72	25.22	0.97	24.84	0.49	20.26	Increasing
6	FOOT ROT	1.38	-	1.94	-	1.18	-	Increasing
7	B.L.B	5.43	-	5.11	-	8.05	-	Decreasing
8	B.L.S	21.09	-	20.38	-	22.41	-	Increasing
9	SHEATH BLIGHT	1.96	-	2.33	-	2.15	-	Decreasing
10	BLAST	5.43	-	6.14	-	5	-	Increasing
NO. OF TOTAL SPOTS VISITED			1380					
TOTAL AREA VISITED (Acres)			9559					

Tehsil wise percentage of hot spots of Rice Borer

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Mian Channu	33	4	Multan	13.3
2	Kehror Pacca	33.3	5	Shujabad	13.3
3	Lodhran	14.3	6	Bahawalpur	10.0

Tehsil wise percentage of hot spots of Rice Leaf Folder

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Multan	13	2	Shujabad	6.7

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

Sr.	TEHSIL	%AGE
1	Ferozwala	2

Tehsil wise percentage of hot spots of Brown Plant Hopper

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Lahore	22	7	Shakargarh	5.9
2	Bahawalpur	20.0	8	Ferozwala	5.9
3	Chistian	16.7	9	Sheikhupura	5.1
4	Bahawalnagar	16.7	10	Kasur	4.3
5	Malikwal	11.1	11	Pattoki	3.7
6	Minchinabad	7.7	12	Chunian	2.7

Tehsil wise percentage of hot spots of Rice Toka

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Lahore	10	3	Sheikhupura	7.7

2	Gujranwala	9.1		
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Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Jahanain	50	7	Lodhran	28.6
2	Dunya Pur	50.0	8	Khanewal	25.0
3	Kot Addu	37.5	9	Alipur	25.0
4	Jatoi	36.4	10	Khushab	6.5
5	Kabirwala	33.3	11	Pakpattan	5.0
6	Kehror Pacca	33.3			

Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Mian Channu	67	14	Phalia	11.1
2	Gujrat	47.4	15	Shahkot	11.1
3	Jalal Pur Jattan	42.9	16	Sheikhupura	10.3
4	Kharian	33.3	17	Sangla Hill	10.0
5	Daska	29.6	18	Nankana Sahib	8.8
6	Sialkot	21.1	19	Wazirabad	6.3
7	Ferozwala	19.6	20	Shakargarh	5.9
8	Pasrur	19.2	21	M.B.Din	5.9
9	Gujranwala	18.1	22	Safdarabad	4.9
10	kamoke	12.5	23	Hafizabad	4.5
11	Sahiwal	12.5	24	Pattoki	3.7
12	Sambrial	12.0	25	Pindi Bhattian	2.3
13	Noshehra Virkan	11.8			

Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	100	34	Chiniot	22.7
2	Kabirwala	66.7	35	Phalia	22.2
3	Shakargarh	64.7	36	Shahkot	22.2
4	Narowal	58.8	37	Sangla Hill	20.0
5	Jalal Pur Jattan	57.1	38	Pirmahal	20.0
6	M.B.Din	52.9	39	Yazman	20.0
7	Khanewal	50	40	Wazirabad	18.8
8	Jahanain	50	41	kamoke	16.7
9	Dunya Pur	50	42	Bhowana	16.7
10	Kharian	44.4	43	Shorkot	16.7
11	Hasilpur	42.9	44	Bhera	16.7
12	Gujrat	42.1	45	Karor	16.7
13	AP Sial	40.0	46	Chistian	16.7
14	Bahawalpur	40.0	47	Bahawalnagar	16.7
15	Gujranwala	36.4	48	Pasrur	15.4
16	Lahore	35.6	49	Nankana Sahib	14.7
17	Baddomalhi	35.0	50	Sharqpur	14.3
18	Zafarwal	35.0	51	Jhang	14.3
19	Malikwal	33.3	52	Shahpur	14.3

20	Kehror Pacca	33.3	53	Lodhran	14.3
21	Layyah	33.3	54	Chunian	13.5
22	Pindi Bhattian	32.6	55	Shujabad	13
23	Sheikhupura	30.8	56	Khushab	13
24	Ahmadpur	28.6	57	Sambrial	12.0
25	Hafizabad	27.3	58	Muridke	11.4
26	Safdarabad	26.8	59	Daska	11.1
27	Sialkot	26.3	60	Pattoki	11.1
28	Narang Mandi	25.0	61	Silanwali	9.1
29	Sahiwal	25.0	62	D.G Khan	9.1
30	Lalian	23.8	63	Kasur	8.7
31	Noshehra Virkan	23.5	64	Multan	6.7
32	Ferozwala	23.5	65	Pakpattan	5
33	Minchinabad	23.1	66	Kamalia	2.6

Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	27	7	Ferozwala	11.8
2	Silanwali	18.2	8	M.B.Din	5.9
3	D.G Khan	18.2	9	Sialkot	5.3
4	Bhera	16.7	10	Muridke	2.9
5	Shahpur	14.3	11	Chunian	2.7
6	Lahore	11.9			

Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	53	18	Nankana Sahib	11.8
2	Pirmahal	33.3	19	Daska	11.1
3	Jalal Pur	33.3	20	Malikwal	11.1
4	Ahmadpur	28.6	21	Shahkot	11.1
5	D.G Khan	27.3	22	Sangla Hill	10.0
6	Kot chutta	21.4	23	Pakpattan	10.0
7	Multan	20.0	24	Pattoki	7.4
8	Taunsa	20.0	25	Khushab	6.5
9	Karor	16.7	26	M.B.Din	5.9
10	Sambrial	16.0	27	Phalia	5.6
11	Depalpure	14.3	28	Chunian	5.4
12	Shujabad	13.3	29	Sialkot	5.3
13	Kasur	13.0	30	Hafizabad	4.5
14	kamoke	12.5	31	Pasrur	3.8
15	Zafarwal	12.5	32	Minchinabad	3.8
16	Kot Radha Kishan	12.5	33	Kamalia	2.6
17	Noshehra Virkan	11.8			

Meteorological data of the current week 2022

METEOROLOGICAL DATA FOR 4TH WEEK OF OCTOBER 2022								
Districts	2022				2021			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Gujranwala	27.5	17.5	66.6	5.0	29.5	19.5	39.5	0.0
Hafizbad	31.5	19.0	65.0	0.0	30.0	17.0	52.0	0.0
Sialkot	23.0	17.0	70.0	0.0	21.0	16.0	69.0	5.0
Narowal	28.2	14.2	73.3	0.0	27.3	14.4	80.6	11.0
Gujrat	29.0	20.0	65.0	0.0	34.8	24.5	62.0	0.0
M.B.Din	31.0	19.0	0.7	0.0	31.1	19.2	0.7	0.0
Lahore	30.8	16.7	55.9	0.0	26.0	22.0	62.5	1.4
Sheikhupura	29.7	18.4	41.0	0.0	28.5	18.2	38.0	0.0
Nankana	30.1	17.8	41.7	0.0	31.5	16.0	31.0	0.0
Kasur	31.1	17.0	1.4	0.0	30.9	19.9	59.9	0.0
Faisalabad	33.4	17.4	70.7	0.0	33.0	19.0	74.1	4.2
Jhang	31.6	15.2	54.6	0.0	22.3	10.0	73.6	0.0
Toba Tek Singh	32.2	16.5	84.3	0.0	29.6	63.7	80.4	0.0
Chiniot	33.0	20.6	58.4	0.0	26.6	16.6	55.0	0.0
Sargodha	33.0	27.0	77.0	100	40.0	38.0	75.0	0.0
Khushab	32.5	19.5	65.0	0.0	35.0	23.5	72.0	0.0
Mianwali	29.7	18.4	41.0	0.0	28.5	18.2	38.0	0.0
Bhakkar	30.1	17.8	41.7	0.0	31.5	16.0	31.0	0.0
Multan	35.4	18.1	64.3	0.0	29.6	17.4	66.9	0.0
Khanewal	33.4	19.0	48.3	0.0	30.0	17.6	69.6	0.0
Vehari	35.0	18.1	71.6	0.0	31.0	18.9	64.1	0.0
Lodhran	31.6	18.1	72.6	0.0	28.7	19.0	69.5	0.0
Sahiwal	30.1	16.5	64.5	0.0	29.5	16.0	65.0	0.0
Pakpattan	30.4	17.3	65.4	0.0	30.0	17.0	64.0	0.0
Okara	30.3	16.9	66.0	0.0	31.0	16.5	62.0	0.0
Bahawalpur	34.1	17.4	56.0	0.0	31.6	18.2	59.4	0.0
Bahawalnagar	33.7	16.5	62.4	0.0	32.0	19.1	59.4	0.0
R.Y.Khan	36.1	16.4	30.0	0.0	32.0	20.0	31.4	0.0
D.G. Khan	35.0	21.6	72.0	0.0	32.0	16.4	57.2	0.0
Muzaffar Garh	31.2	20.8	70.1	0.0	33.8	20.0	57.1	3.0
Rajapur	35.5	21.5	52.4	0.0	34.2	18.2	47.0	0.0
Layyah	29.0	19.0	68.0	0.0	32.1	19.5	75.5	0.0
TOT/AVG	31.51	18.32	57.40	3.28	30.45	20.17	57.57	0.77

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 3-4 inches 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