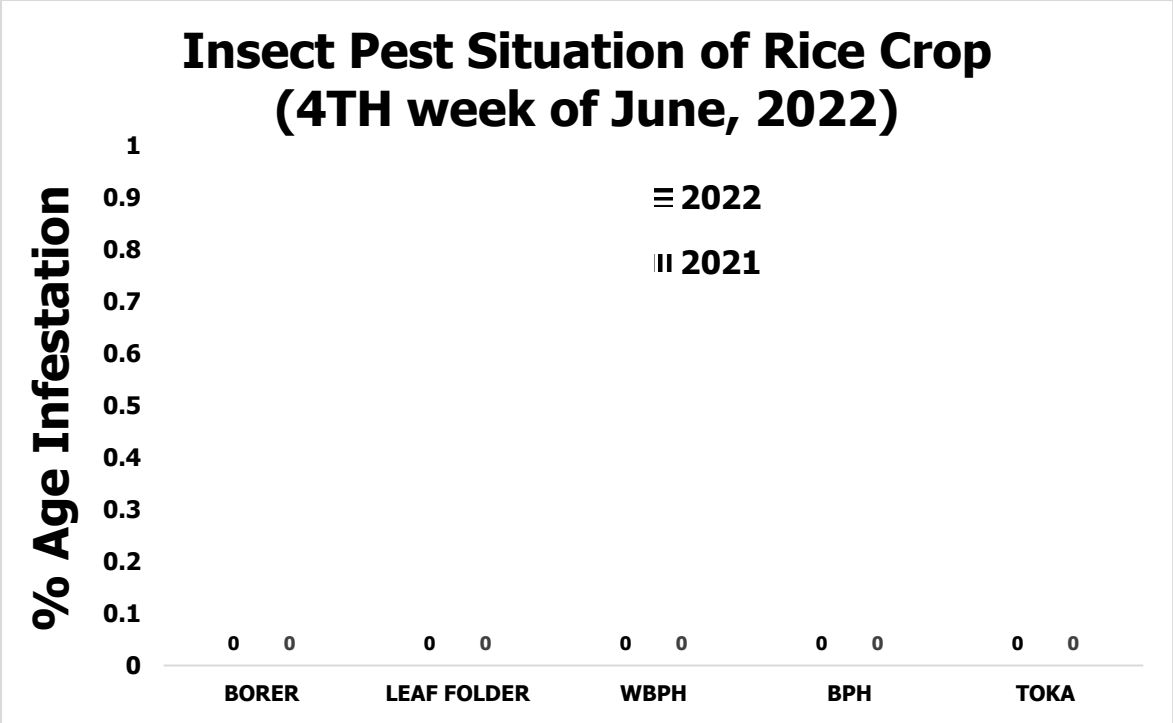
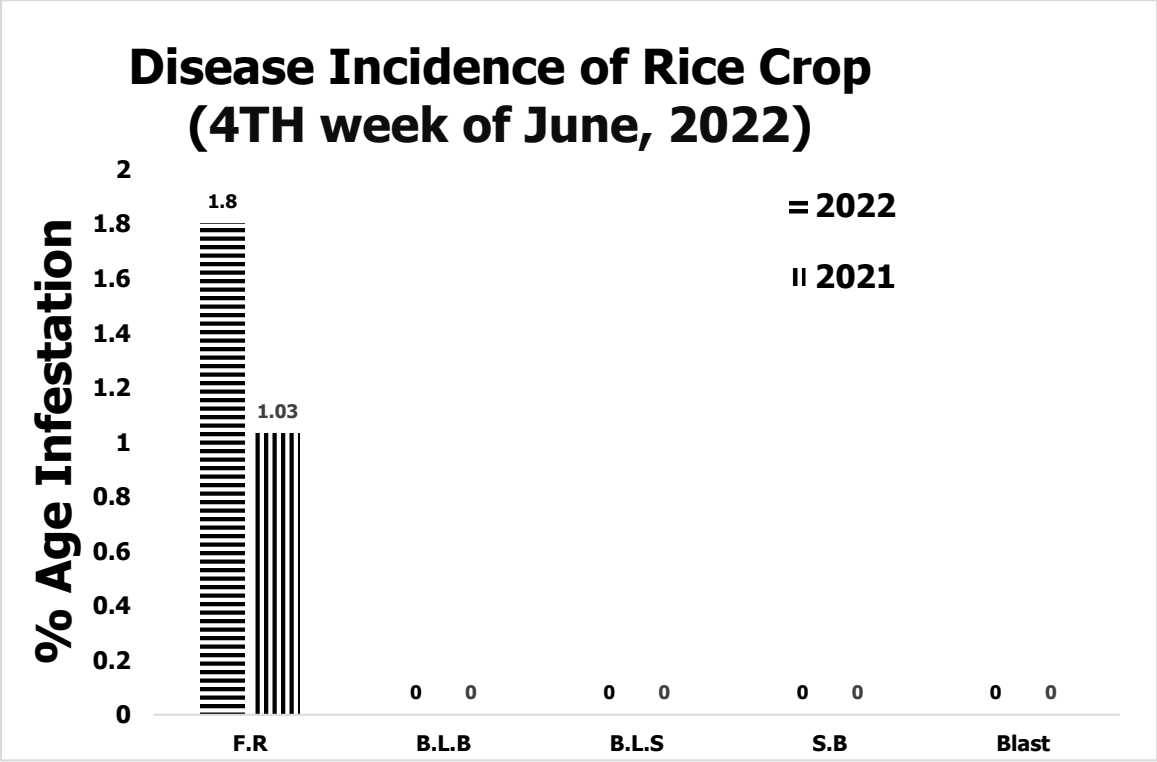
# GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 4th WEEK OF JUNE, 2022



# PEST SITUATION ON RICE CROP IN PUNJAB DURING 4TH WEEK OF JUNE, 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 | 0.00 | 3.15 | 0.00 | 0.00 | 0.00 | 2.07 | - |
| 2 | LEAF FOLDER | 0.00 | 0.45 | 0.00 | 0.00 | 0.00 | 0.52 | - |
| 3 | WPBH | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - |
| 4 | BPH | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - |
| 5 | TOKA | 0.00 | 4.50 | 0.00 | 0.52 | 0.00 | 3.45 | - |
| 6 | FOOT ROT | 1.80 | - | 0.75 | - | 1.03 | - | **Increasing** |
| 7 | B.L.B | 0.00 | - | 0.00 | - | 0.17 | - | Decreasing |
| 8 | B.L.S | 0.00 | - | 0.00 | - | 0.00 | - | - |
| 9 | SHEAT H BLIGHT | 0.00 | - | 0.00 | - | 0.00 | - | - |
| 10 | BLAST | 0.00 | - | 0.00 | - | 0.00 | - | - |
| NO. OF TOTAL SPOTS VISITED | | | 444 | | | | | |
| TOTAL AREA VISITED (Acres) | | | 3046 | | | | | |

## Tehsil wise percentage of hot spots of Rice Borer

Nil

## Tehsil wise percentage of hot spots of Rice Leaf Folder

Nil

## Tehsil wise percentage of hot spots of White-Backed Plant Hoppe

Nil

## Tehsil wise percentage of hot spots of Brown Plant Hopper

Nil

## Tehsil wise percentage of hot spots of Rice Toka

Nil

## Tehsil wise percentage of hot spots of Foot Rot

| Sr. | TEHSIL | %AGE | Sr. | TEHSIL | %AGE |
|---|---|---|---|---|---|
| 1 | Gujranwala | 50.0 | 3 | Noshehra Virkan | 12.5 |
| 2 | Malikwal | 16.7 | 4 | Lahore | 11.1 |

## Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Nil

## Tehsil wise percentage of hot spots of Brown Leaf Spots

Nil

## Tehsil wise percentage of hot spots of Sheath Blight

Nil

## Tehsil wise percentage of hot spots of Rice Blast

Nil

## Meteorological data of the current week 2021-2022

| METEOROLOGICAL DATA FOR 4TH WEEK OF JUNE 2022 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Districts | 2022 | | | | 2021 | | | |
| | Temperature | | R.H% | Rainfall | Temperature | | RH% | Rainfall |
| | Max. | Min. | | (mm) | Max. | Min. | | ( mm) |
| Gujranwala | 42.8 | 33.5 | 70.7 | 36.0 | 44.25 | 33.25 | 45.85 | 2 |
| Hafizbad | 42.0 | 32.0 | 38.0 | 18.0 | 41.5 | 30.0 | 40.0 | 18.0 |
| Sialkot | 41.2 | 31.5 | 65.3 | 0.0 | 42.6 | 32.5 | 66.1 | 0.0 |
| Narowal | 34.7 | 20.3 | 63.2 | 30.0 | 36.0 | 21.3 | 54.8 | 27.0 |
| Gujrat | 38.7 | 28.3 | 46.0 | 66.0 | 39.33 | 28.33 | 35.0 | 12 |
| M.B.Din | 42.0 | 30.0 | 35.0 | 0.0 | 40.0 | 29.0 | 39.0 | 0.0 |
| Lahore | 36.3 | 25.1 | 53.1 | 32.4 | 38.4 | 27.5 | 44.8 | 6.2 |
| Sheikhupura | 36.6 | 24.2 | 52.0 | 18.0 | 39.5 | 27.3 | 46.0 | 0.0 |
| Nankana | 40.7 | 30.1 | 26.6 | 5.0 | 39.3 | 28.3 | 23.9 | 0.0 |
| Kasur | 33.4 | 22.6 | 46.9 | 2.9 | 39.9 | 27.1 | 26.3 | 0.0 |
| Faisalabad | 37.1 | 24.8 | 62.7 | 27.4 | 37.2 | 24.8 | 76.6 | 11.2 |
| Jhang | 32.8 | 19.2 | 52.8 | 0.0 | 35.1 | 22.64 | 50.17 | 97.5 |
| Toba Tek Singh | 35.7 | 23.2 | 71.5 | 15.8 | 40.0 | 25.1 | 69.1 | 37.3 |
| Chiniot | 37.7 | 24.7 | 37.7 | 0.0 | 30.8 | 23.8 | 27.5 | 0.0 |
| Sargodha | 43.0 | 32.0 | 52.0 | 0.0 | 43.0 | 31.0 | 45.0 | 0.0 |
| Khushab | 42.9 | 27.7 | 56.5 | 0.0 | 42.5 | 26.5 | 49.5 | 0.0 |
| Mianwali | 42.0 | 32.0 | 40.0 | 0.0 | 40.0 | 31.0 | 0.0 | 0.0 |
| Bhakkar | 42.2 | 33.8 | 25.6 | | 40.2 | 28.3 | 35.5 | 0.0 |
| Multan | 39.6 | 27.6 | 64.0 | 0.0 | 39.5 | 31.0 | 70.1 | 0.0 |
| Khanewal | 36.4 | 25.4 | 61.3 | 2.0 | 39.3 | 29.9 | 61.9 | 0.0 |
| Vehari | 39.7 | 28.7 | 59.6 | 0.0 | 38.0 | 30.6 | 62.7 | 0.0 |
| Lodhran | 36.0 | 24.6 | 68.0 | 7.0 | 40.4 | 29.7 | 70.1 | 0.0 |
| Sahiwal | 41.5 | 27.5 | 46.0 | 7.3 | 40.0 | 27.0 | 51.0 | 2.0 |
| Pakpattan | 41.4 | 27.2 | 48.0 | 2.6 | 42.0 | 29.0 | 52.0 | 0.0 |
| Okara | 41.2 | 27.0 | 54.0 | 15.5 | 39.0 | 27.0 | 49.0 | 0.0 |
| Bahawalpur | 33.6 | 23.6 | 63.8 | 16.8 | 40.7 | 27.8 | 49.1 | Traces |
| Bahawalnagar | 36.7 | 25.5 | 62.3 | 0.0 | 41.6 | 25.7 | 42.1 | 0.0 |
| R.Y.Khan | 38.3 | 25.5 | 52.5 | 52.8 | 41.4 | 27.8 | 55.0 | 3.7 |
| D.G. Khan | 44.0 | 33.0 | 24.0 | 0.0 | 44.5 | 31.0 | 30.0 | 0.0 |
| Muzaffar Garh | 37.2 | 23.1 | 70.0 | 18.0 | 42.3 | 32.5 | 31.5 | 0.0 |
| Rajanpur | 42.5 | 27.7 | 45.6 | 0.0 | 43.9 | 29.4 | 39.9 | 8.0 |
| Layyah | 46.0 | 23.0 | 52.0 | 0.0 | 40.0 | 26.0 | 63.0 | 0.0 |
| **TOT/AVG** | **39.24** | **27.01** | **52.08** | **12.05** | **40.06** | **28.19** | **46.95** | **7.25** |

**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 |