SURVEY REPORT ON INSECT-PESTS OF COTTON IN FATEABAD, SIRSA & HISAR DISTRICTS

Date	Villages surveyed (No. of fields surveyed)
08.07.2022	**Fatehabad:** Dhand (2), Kirdhan (2), Pili Mandori (1) & Chaplamori (2) **Sirsa:** Kheri (2), Gigorani (2) & Randhawa (2); **Hisar:** Kherampur (2)

Fifteen fields of cotton from seven villages were surveyed for insect-pests incidence in Fatehabad, Sirsa and Hisar districts and following observations were recorded:

- **Six fields (Both fields of Randhawa, one each field of Dhand, Kirdhan, Pili Mandori & Chaplamori) crossed economic threshold level (ETL) for whitefly** (18-24 adults/ 3 leaves) along with honeydew excretion on plants, eggs and nymphal population. Whitefly population ranged from 0.6 to 59.2 adults/ 3 leaves across the surveyed fields.
- **Two fields (One each of Kheri & Chaplamori) crossed ETL for thrips** (30 thrips/ 3leaves) and population ranged from 4.6 to 46.2 thrips/ 3 leaves across the surveyed fields. However, none of the field crossed ETL for leafhopper (6 nymphs/ 3 leaves) and population varied from 0.2 to 5.4 nymphs/ 3 leaves across the surveyed fields.
- None of the surveyed field crossed economic threshold level for pink bollworm (ETL: 5-10% fruiting body damage) although pink bollworm infestation was noticed in five fields.
- Activity of spiders, coccinellids and *Chrysoperla* sp. which feed on sucking pests was observed in the fields. Therefore, farmers should refrain from unnecessary insecticide application in order to conserve beneficial insects.

Prediction and suggestions

- In case of long dry spell of 15 days or more, the population of whitefly and thrips on cotton may increase. Farmers are advised to monitor the population of sucking pests and natural enemies on 20 randomly plants (3 leaves/plants) and pink bollworm through pheromone traps (2 traps/acre) or fruiting body damage (square and flowers) on weekly basis and to apply control measures only at ETL.
- An initial spray of neem based insecticide (Nimbecidine/Achook) @ 5.0 ml/litres water can be applied to manage initial infestation of sucking pests and pink bollworm in cotton crop upto 60 days of sowing. In case whitefly population is reaching ETL in more than 60 days old crop, spray of pyriproxyfen (Daita) 10 EC @ 2 ml per liter water is suggested.
- Cotton stalks of previous season that are kept in/near the cotton field are needed to be managed in order to avoid carryover of pink bollworm population in cotton crop. Also, the infested squares and flowers are needed to be collected from initial flush and destroyed.
- In case of pink bollworm infestation crossing ETL in more than 60 days old crop, spray of profenophos (Curacron/Celcron/Carina) 50 EC @ 3.0 ml per liter water is suggested.
- Farmers are advised to add surfactant like Sandovit/Teepol @ 0.3 ml per liter water in spraying solution in rainy season.
- Farmers are advised to spray only recommended insecticide in right dose and mixing of insecticides should be avoided.

SURVEY REPORT ON INSECT-PESTS OF COTTON IN JIND & HISAR DISTRICTS

Date	Villages surveyed (No. of fields surveyed)
23.06.2022 & 24.06.2022	**Jind:** Kasoon Gaon (1), Kheri Saffa (1), Sunderpura (2), Sachha Khera (2) & Danoda Khurd (2), **Hisar:** Kallar Bhaini (2) & Khedar (2)

Twelve fields of cotton from seven villages were surveyed for insect-pests incidence in Jind and Hisar districts and following observations were recorded:

- Cotton crop was found in vegetative to flowering stage in Jind district and square to boll formation stage in Hisar district.
- One cotton fields (Sachha Khera) reached economic threshold level (ETL: 5-10% fruiting body damage) of pink bollworm besides five fields (one each from Kasoon Gaon, Sunderpura, Danoda Khurd, Kallar Bhaini and Khedar) showed pink bollworm infestation below ETL.
- None of the field was found to cross economic threshold level (ETL) for whitefly, thrips and leafhopper on cotton crop in surveyed field. Mean whitefly, thrips and leafhopper population varied from 0.6 to 12.4 adults/ 3 leaves, 1.4 to 18.6 thrips/3 leaves and 0.0 to 1.2 nymphs/ 3 leaves, respectively across the surveyed fields.
- Cotton leaf curl virus disease was observed in majority of fields whereas root rot was observed in traces in a few fields.
- Activity of spiders, coccinellids and *Chrysoperla* sp. which feed on sucking pests was observed in the fields. Therefore, farmers should refrain from unnecessary insecticide application in order to conserve beneficial insects.

Prediction and suggestions

- In case of long dry spell of 15 days or more, the population of whitefly and thrips on cotton may increase. Farmers are advised to monitor the population of sucking pests and natural enemies on 20 randomly plants (3 leaves/plants) and pink bollworm through pheromone traps (2 traps/acre) or fruiting body damage (square and flowers) on weekly basis and to apply control measures only at ETL.
- An initial spray of neem based insecticide (Nimbecidine/Achook) @ 5.0 ml/litres water can be applied to manage initial infestation of sucking pests and pink bollworm in cotton crop upto 60 days of sowing.
- Cotton stalks of previous season that are kept in/near the cotton field are needed to be managed in order to avoid carryover of pink bollworm population in cotton crop. Also, the infested squares and flowers are needed to be collected from initial flush and destroyed.
- In case of pink bollworm infestation crossing ETL in more than 60 days old crop, spray of profenophos (Curacron/Celcron/Carina) 50 EC @ 3.0 ml or per liter water is suggested.
- Drenching of carbendazim 50WP @ 2 g per liter water is suggested in root rot affected patches.
- Farmers are advised to spray only recommended insecticide in right dose and mixing of insecticides should be avoided.