

SURVEY REPORT OF INSECT-PESTS ON COTTON AND SORGHUM CROP IN HISAR, BHIWANI AND CHARKI DADRI DISTRICTS OF HARYANA

COTTON CROP:

Date	Villages surveyed (No. of fields surveyed)
20.07.2019	Hisar: Kaimri (2), Nalwa (2) and Mujadpur (2) Bhiwani: Ratera (2), Naya Gaon (2), Sungarpur (2), Chandawas (1) and Jui (3) Charkhi Dadri: Umarwas (3), Hadodi (1) and Dohka Hariya (2)

Twenty two fields of cotton from 11 villages were surveyed for insect-pests incidence in Hisar, Bhiwani and Charkhi Dadri districts and following observations were recorded:

- Adult whitefly population was below economic threshold (ET) (6-8 adults/leaf) in all the surveyed fields. Mean population of whitefly adults ranged from 0.2 to 3.4 adults per leaf across the fields.
- Leafhopper population was also found below ET (2 nymphs/leaf) in all the surveyed fields. Mean population of leafhopper nymphs ranged from 0.1 to 1.1 nymphs per leaf across the fields.
- Incidence of thrips was also observed in all surveyed fields and two fields (one each at Nalwa and Ratera) were found to crossed ET (10 thrips/leaf). Mean population of thrips ranged from 1.1 to 19.7 thrips per leaf across the fields.
- Solenopsis mealybug (*Phenacoccus solenopsis*) infestation was not observed in surveyed fields.

Predictions and suggestions

- Farmers should be advised to monitor insect-pest populations on weekly basis and to apply control measures only at ET.
- Activity of spiders, coccinellids and *Chrysoperla* sp. which feed on sucking pests was observed in most of the fields. Therefore, farmers should refrain from unnecessary insecticide application in order to conserve beneficial insects.
- In case of long dry spell of 15 days or more, the population of whitefly on cotton may increase fast. The leafhopper population on the cotton may increase if rains occur frequently and mean relative humidity remains above 70 per cent. However, the thrips population is likely to remain below ET in the areas receiving rainfall.
- In case of whitefly population crosses ET in cotton, an initial spray of neem based insecticide (Nimbecidine/Achook) @ 1 litre/acre in 200 litres of water may be sprayed followed by need based spray of 300 ml dimethoate 30 EC in 200 litres of water per acre.
- For the management of leafhopper in cotton, farmers are advised to apply 40 ml imidacloprid (Confidor) 200 SL or 40g thiamethoxam (Actara) 25 WG in 120-150 litres of water/acre.
- In case of thrips population crosses ET, a spray of 250-350 ml dimethoate (Rogor) 30EC or 300-400 ml oxydemeton methyl (Metasystox) 25 EC with 120-150 litres of water is suggested.
- Farmers are suggested to spray only recommended insecticide in right dose and mixing of insecticides should be avoided.

SORGHUM CROP:

Date	Villages surveyed (No. of fields surveyed)
20.07.2019	Hisar: Kaimri (2), Nalwa (2) and Mujadpur (2) Bhiwani: Ratera (2), Naya Gaon (2), Sungarpur (2), Chandawas (1) and Jui (3) Charkhi Dadri: Umarwas (3), Hadodi (1) and Dohka Hariya (2)

Twenty two fields of sorghum crop from 11 villages were observed for insect-pest incidence in three districts. The following observations were made:

- The sorghum shoot fly, *Atherigona soccata* population was found below economic threshold (10% dead hearts or 1 egg/plant) in all the fields surveyed. Mean population of shoot fly dead hearts ranged from 0.6 to 4.5 per cent across the fields.
- Stem borer, *Chilo partellus* infestation was not observed in any fields of sorghum surveyed.

Predictions and suggestions

- Farmers should be advised to monitor insect-pest populations on weekly basis and to apply control measures only at ET.
- Farmers are suggested to spray only recommended insecticide in right dose and mixing of insecticides should be avoided.