

Okra

Pests

Shoot and Fruit Borer (*Earias vittela* and *E. insulana*):

The incidence of fruit borers usually occurs during humid conditions after the rainfall. The adult female lays eggs individually on leaves, floral buds and on tender fruits. Small brown caterpillars bore into the top shoot and feeds inside the shoot before fruit formation. Later on they bore into the fruits and feed within. Affected fruits become unfit for consumption.

Control: The infested fruits and shoots should be removed regularly and buried deep in the soil. Spraying with Endosulfan 35 EC (2 ml/litre of water) or Quinalphos 25 EC (2 ml/litre of water) or Carbaryl (4 g/litre of water) effectively controls the pest. Before spraying all the affected plant parts should be removed.

Leaf Hopper (*Amrasca biguttula biguttula*):

This pest attacks the crop at its early stage of growth. Small, greenish leaf hoppers; nymphs and adults are found on the under side of the leaves. The adults and the nymphs suck the cell sap from the leaves. As a result the leaves curl upwards along the margins and have a burnt look which extend over the entire leaf area. The affected plants show a stunted growth.

Control: Soil application of Carbofuran 3 G (1 kg a.i./ha) at the time of sowing effectively controls the pest. Spraying the crop with Monocrotophos (0.05%) at fortnightly intervals starting with the appearance of the pest provides a good control.

Okra Stemfly (*Melanagromyza hibisci*):

The maggots of this fly attack 15-30 days old plants causing nodulated galls and swellings. At later stages, the maggots of this fly damage the petioles resulting in complete defoliation of the affected plant.

Control: Application of Carbofuran or Phorate @ 1 kg a.i./ha protects the main stem from the pest attack during the seedling stage.

Mites (*Tetranychus spp.*):

The infestation of mites is mostly observed during the warm and dry periods of the season. Nymphs and adults suck cell sap and whitish grey patches appear on leaves. Affected leaves become mottled, turn brown and fall.

Control: Spraying with Wettable Sulphur 80 WP (2 g/ litre of water) or Dicofol 18.5 EC (2.5 ml/litre of water) effectively control the mites.

White Fly (*Bemisia tabaci*):

The milky white minute flies; nymphs and adults suck the cell sap from the leaves. The affected leaves curl and dry. The affected plants show a stunted growth. White flies are also responsible for transmitting yellow vein mosaic virus.

Control: Soil application of Carbofuran (1 kg a.i./ha) at the time of sowing and 4-5 foliar sprays of Dimethoate (0.05%) or Metasystox (0.02%) or Nuvacron (0.05%) at an interval of 10 days effectively controls the whitefly population.

Root-Knot Nematode (*Meloidogyne incognita*):

The root-knot nematode enters the roots causing characteristic root knots or galls. The aerial symptoms consist mainly of stunted plant growth and yellowing of leaves. Nematode attack in the seedling stage leads to pre- and post-emergence damage resulting in reduced crop stand.

Control: Cultural control methods such as rotation with non-host crops such as cereals, fallowing and deep ploughing 2-3 times in summer months is recommended. Application of Nemagon (30 litres/ha) with irrigation before sowing is recommended to protect the seedling in its early stage of plant growth. .