

Cotton Mealybug Management

Recognize the problem

The cotton mealybug is a sucking pest of cotton and sucks the cell sap from the leaves, fruit and twigs. Serious attacks result in delayed growth and late opening of bolls which severely affects yield. It feeds on soft tissues and injects saliva, which causes curling of the leaves. Mealybugs secrete a sugary substance on which black sooty mould growth is observed. This also attracts ant colonies.

Background

The mealybug body is covered with very short waxy filaments. It spreads from the borders of the field. It is a polyphagous pest and feeds on various crops and weeds, etc. In initial stages, it can be observed in small pockets. More damage occurs during dry weather conditions. The main vector of their transmission is ants but they also get transmitted by humans, water, air, etc. Therefore, controlling ants will allow predators to feed on mealybugs, reducing their numbers.

Management

- Use crop rotation practices and burn the plant debris to maintain the field sanitation
- Remove or avoid growing the alternate host plants of mealybug such as *Parthenium* spp., datura, milkweed, *Chenopodium* spp., okra, tomato and brinjal near cotton fields
- Remove and burn the affected plant parts
- Encourage the activity of predators like *Cryptolaemus montrouzieri* and *Cheilomenes sexmaculata*, commonly known as ladybird beetles
- Locate the ant colonies and destroy them by drenching with chlorpyrifos 50EC @ 2.5 ml/ litres of water
- If the infestation continues, use any one insecticide and add detergent powder 20gm / 10 lit of water for the degradation of the waxy coating
- After harvesting, store cotton sticks away from the fields and if possible a barrier of insecticide (e.g. malathion dusting) should be made around the stacks to reduce the carry over to the next crop

Infestation of Mealybug on fruit.
(Photo by Department of Agriculture, Fisheries and Forestry, Queensland Government)



Mealybug. (Photo by US National Collection of Scale Insects Photographs Archive, ARS- USDA)



EC- Emulsifiable concentrate

When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

Scientific name(s) > *Phenacoccus solenopsis*

The recommendations in this factsheet are relevant to: India



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