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Protecting Tomatoes from Moth Pest

Moth pest

Moth pest (*Tuta absoluta*) is a leaf mining moth that causes great losses to tomato farmers. The moth invasion begins after the female has laid eggs on the surface of the tomato plant. The eggs are cylindrical and creamy white to yellow and found underside of the leaves or on stems and sepals. After four to six days after laying, the eggs hatch into the first larva, which is cream in colour with a dark head. Immediately after hatching, the larvae starts penetrating the plant surface creating conspicuous mines (burrows) and galleries.



Symptom of moth pest infection

The tomatoes leaves have wider galleries and dry damaged tissues. The larvae are visible in the galleries and become greenish to light pink in their second to fourth stages and may change galleries several times. The larvae will continuously feed on the plant indiscriminately causing 'burning' symptoms on leaves, drilling tiny holes on fruits and burrowing on stems causing breakages.



Health tomato alongside an infested tomato

How to control the moth pest

1. Before planting, remove all the other alternate hosts such as black night shade, potatoes weeds such as *Datura* and other plants from Solanaceae family
2. In the field, one can uproot the crop, burn or bury deep in the soil or physically remove the pest
3. For greenhouse production system, once infested, remove all the crops and close up the house to avoid the adults from migrating to open field crops. Crop rotation with name a few such as sorghum, millet, maize, beans (non-host crops) will reduce moth population from building up.
4. Use of biological control such as predators e.g. Mirid bugs and *Bacillus thuringiensis* bacteria helps to eliminate the moth and at the same time, biological control does not affect the beneficial organisms such as lady birds
5. Despite the long list of pesticides registered for the management of the pest, these insecticides are of low to moderate effectiveness due to the cryptic nature of the larvae and the high biotic potential of the insect

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