

## Disposing of fruit to manage *Tuta absoluta* on tomato

### Recognize the problem

The tomato leaf miner (*Tuta absoluta*) is a serious new pest of tomato in Ethiopia. Females lay individual small (0.35 mm long) cylindrical creamy yellow eggs. Recently hatched larvae are light yellow or green and only 0.5 mm in length. As they mature, larvae develop a darker green color. Pupation may take place in the soil, on the leaf surface or within the mines.

Tomato leaf miners can affect tomato from emergence to fruit maturity. Feeding damage is caused by all larval instars throughout the plant growth stages. On leaves, the larvae feed inside, forming irregular leaf mines which may later become dead (necrotic). Larvae can form extensive mines (galleries) in the stems which alter the normal growth of the plants. The larvae also burrow into the fruit, forming galleries. These galleries represent open areas for entry of invasion by secondary pathogens, leading to fruit rot. Damage can reach up to 100%.

### Background

Most insecticides available for managing other vegetable insect pests are not effective against *Tuta absoluta*. This is because they feed on the internal tissue of the leaves and inside the fruit and so are hidden from chemical sprays. Tomato growers usually leave infested unmarketable fruits around their tomato field after sorting and selling marketable fruits. This practice contributes to the build-up of the pest population as pupation mainly occurs in the soil. Interrupting the pupation from infested fruit helps to reduce the insect population and reduce infestation.

### Management

- During harvest pick all infested plant parts, including fruit with holes in or fruit that are soft or rotten
- Place these infested parts in a black polythene bag (up to 25 kg capacity)
- Seal the bag and place it in the sun for 5 to 7 days
- During this period, the heat from the sun will raise the temperature inside the bag and this will kill the live larvae inside the tomato fruit
- Fruits which have fallen from the plant can also be collected from the ground and placed in bags
- After 5 to 7 days the infested fruits can be composted

Tomato leaf showing mines produced by larvae of *T. absoluta*. (Photo by Virginia Tech Outreach and International Affairs, Flickr.com)



Scientific name(s) > *Tuta absoluta*

The recommendations in this factsheet are relevant to: Ethiopia



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