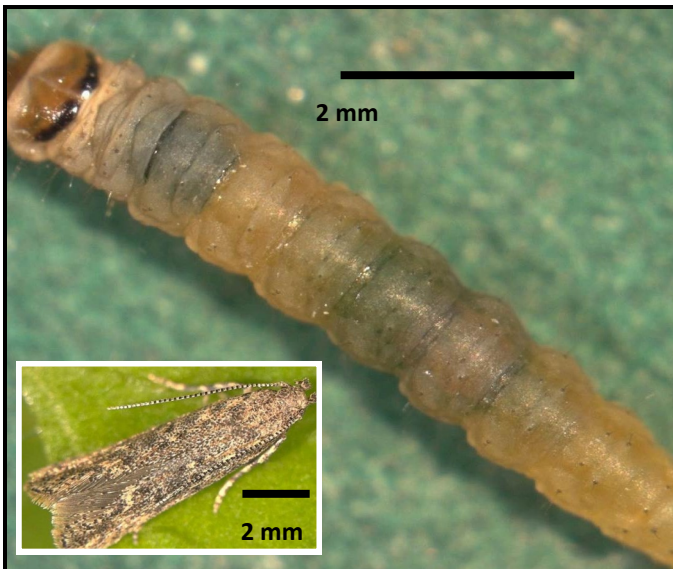




Tuta absoluta on tomato in Ghana



Larva and adults of *Tuta absoluta*

(©Photo: NVWA Plant Protection Service, Bugwood.org)

- Adults: small, grey-brown, thin. Hide between leaves during the day
- Larvae: small, yellow-green with black heads, turning pinkish-green with age. Found in tunnels on leaves, stem and fruit



Vegetative symptoms

(© Dr Andrea Minuto, CERSAA, Albenga (IT).

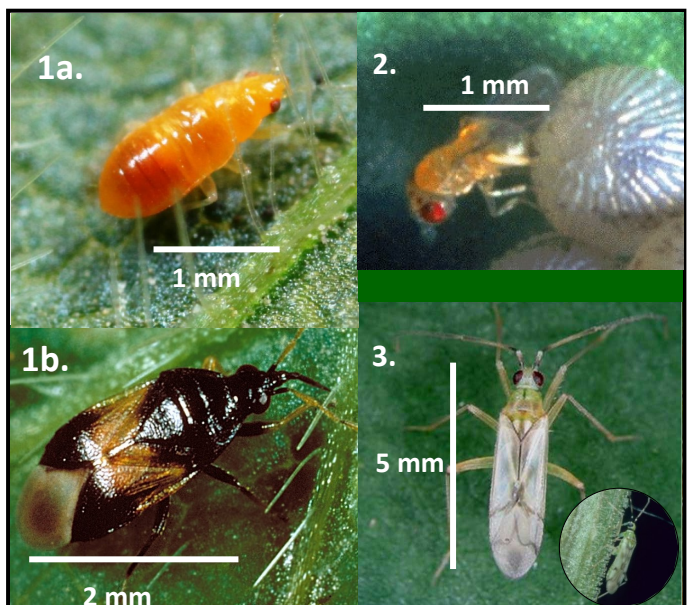
- Thin silvery trails (tunnels) on leaves which may join together to form white blotches
- Green larvae with black heads, and their black frass, inside the tunnels
- Tiny holes on stems
- Silky webs produced by larvae to fold leaf
- Leaves may fall off if badly attacked



Fruit symptoms

(©Peter Kodwaran, Ministry of Agriculture Livestock and Fisheries (MoALF), Kenya; Elizabeth Maina, Kenya)

- Holes in fruit, possibly surrounded by black frass
- Larvae and galleries inside fruit
- Sunscald of fruit due to leaves prematurely falling



Natural enemies 1. Minute pirate bug (*Orius*); 2. Parasitic wasps (*Trichogramma*); 3. Tomato/mirid bug (*Nesidiocoris*)

(©A. Sisson, Bugwood.org; P. Sloderbeck, Bugwood.org; S. Hassan; NBIAR; M. Shephard. G. Carner, P. Ooi, Bugwood.org)

- 1a. Nymphs: Tiny, tear drop-shaped, clear/yellow/orange/brown. 1b. Adults: 2-3 mm long, oval-shaped, black with white markings, wings longer than the body. Feed on smaller insects, larva and eggs pests
- 2. Adult: Tiny, 0.5-1 mm long, yellow/brown/black with. Lay eggs inside the eggs of lepidopterous pests
- 3. Nymphs: 1-4 mm in length, yellow-green to emerald green. Adults: 5-6 mm in length, black spots on clear hindwings. Feed on the eggs and/or larvae of leaf miners, whiteflies, spider mites, moths, aphids