

Tomato fruit borer (corn earworm) (112)

Summary

- Worldwide distribution. On beans, capsicum, cotton, maize, okra, sorghum, tomato, and to a lesser extent legumes, tobacco, and many weeds. An important pest.
- Eggs laid on tomatoes or weeds nearby. At first, the larvae feed on leaves; later, bore into flowers and fruit. Fungi and bacteria enter and cause rots.
- In maize (corn), damage to tip of cob allows weevils to invade.
- Natural enemies: present but often too slow to prevent damage when large numbers of moths invade an area.
- Cultural control: remove weeds, and collect remains of crops and destroy. Scout for young caterpillars. Plant sunflowers at random as a trap crop, attracting moths to lay eggs.
- Chemical control: Bt (*Bacillus thuringiensis*) or NVP (against early stages). Synthetic pyrethroids, alternate with other insecticides in different groups to avoid resistance occurring, but they will kill natural enemies.

Common Name

Tomato fruit borer, corn earworm, cotton bollworm

Scientific Name

Helicoverpa armigera, previously *Heliothis armigera*.



Photo 1. Caterpillar of the tomato fruit borer (corn earworm), *Helicoverpa armigera*, eating a tomato. Note the three stripes on the top of its body.



Photo 2. Caterpillar of the tomato fruit borer (corn earworm), *Helicoverpa armigera*, eating a tomato. Note that there may be considerable variation in the colour and marking of this insect; compare with all the others.



Photo 4. Caterpillar of the tomato fruit borer (corn earworm), *Helicoverpa armigera*, eating a tomato. Note, hairs on the body can be clearly seen towards the rear of the caterpillar.



Photo 5. The sloping hind end of the caterpillar and the presence of short stiff hairs sets *Helicoverpa armigera* apart from *Spodoptera litura*.



Photo 3. Caterpillar of the tomato fruit borer (corn earworm), *Helicoverpa armigera*, eating a tomato.



Photo 6. Caterpillars of *Helicoverpa armigera*, in cobs of maize, showing the dark green stripes along the back and a yellow stripe at the side (more clearly seen on the caterpillar at the top of the photo).



Photo 7. Caterpillar of *Helicoverpa armigera* in cob of maize. Note, this is much darker than those in Photo 6.



Photo 8. Caterpillar of tomato fruit borer, *Helicoverpa armigera*, on potato.

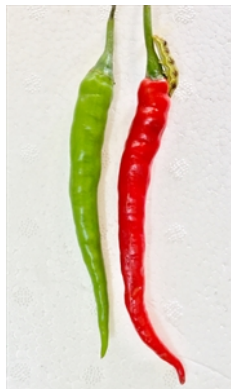


Photo 9. Caterpillar of tomato fruit borer (corn earworm), *Helicoverpa armigera*, on fruit of chilli.



Photo 10. Caterpillar of tomato fruit borer (corn earworm), *Helicoverpa armigera*, on eggplant.



Photo 11. Adult corn earworm, *Helicoverpa armigera*.



Photo 12. Male *Helicoverpa armigera*. Note the indistinct inner border of the black markings on the hind wings.



Photo 13. *Spodoptera litura* provided for comparison.

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Information from Waterhouse DF, Norris KR (1987) *Biological Control Pacific Prospects*. Inkata Press. *Helicoverpa* (2020) Business Queensland. Queensland Government. (<https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/crop-growing/pests-field-crops/helicoverpa>). DPI&F (2005) insects. Understanding *Helicoverpa* ecology and biology in southern Queensland: know the enemy to manage it better. Queensland Government. (https://www.daf.qld.gov.au/_data/assets/pdf_file/0005/72689/Insects-Helicoverpa-ecology-biology.pdf). Photos 1&2 Pita Tikai, ACIAR PC/2010/090, Solomon Islands. Photos 3-8, 10&12 Mani Mua, SPC, Sigatoka Research Station, Fiji. Photo 9 Georg Goergen/IITA Insect Museum, Cotonou, Benin.

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