Pacific Pests, Pathogens, Weeds & Pesticides - Online edition

Tomato green looper (333)

Summary

- Worldwide distribution. On cabbage, cucumber, potato, daisy, legume plant families, and more. An important moth pest.
- Early larvae make 'windows' in leaves; later larvae make holes or defoliate plants.
- Eggs laid on underside of leaves; larvae blue-green, with white lines along body, up to 40 mm long. Move by looping. Pupae in silken cocoons in soil or on leaves. Adults, dark grey-brown, with silvery patches on forewings and two white spots, wingspan 30-40 mm, and bunched hairs like horns on head.
- Natural enemies: parasitoids give good control, and nuclear polyhedrosis virus effective.
- Cultural control: inspect nurseries and crops regularly; remove larvae by hand; use trap crops, e.g., mustards or Chinese cabbage (Bok Choy), but destroy trap crop before insects hatch.
- Chemical control: in household plots, use PDPs (chillies, neem, derris, or pyrethrum); in commercial plots, grow under nets; use Bt *(Bacillus thuringiensis)* sprays against caterpillars when young.

Photo 1. Larva of green looper, *Chrysodeixis eriosoma*.

Photo 2. Pupa of green looper, *Chrysodeixis eriosoma*, showing the silken cocoon.

Photo 3. Adult green looper caterpillar, *Chrysodeixis eriosoma*.

Common Name

Green looper caterpillar, green garden looper. In Fiji, this has been called the green semi-looper. In this fact sheet it is called the 'tomato green looper'.

Scientific Name

Chrysodeixis eriosoma; the identification of this moth in the Pacific may have been confused with a similar ('sister') moth, *Chrysodeixis chalcites*, which in Fiji is listed by Swaine (1971)[1] as *Plusia chalcites*. However, CABI (2014) lists no records of *Chrysodeixis chalcites* in the Pacific islands (it is in Australia and New Zealand), and quotes (Zang 1994): "Literature referring to *C. chalcites* (= chalcytes) in southern or eastern Asia or Oceania actually refers to *C. eriosoma*". However, the SPC surveys of Federated States of Micronesia and Palau record *Chrysodeixis chalcites* in Palau and the Northern Mariana Islands[2].According to the entry in Wikipedia, the two species cannot be separated morphologically, but they can be separated based on DNA, response to pheromones and distribution. These moths are member of the Noctuidae.

Photo 4. Adult green looper caterpillar, *Chrysodeixis eriosoma*, dorsal view.

Photo 5. Adult green looper caterpillar, *Chrysodeixis eriosoma*, ventral view.

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[1]Information from Swaine G (1971) *Agricultural Zoology in Fiji.* Her Majesty's Stationery Office. London; and CABI (2014) Chrysodeixis eriosoma (green looper caterpillar) Crop Protection Compendium. (https://www.cabi.org/cpc/datasheet/13244); and *Chrysodeixis eriosoma* (Doubleday) (1991) Crop Knowledge Master Department of Entomology, Honolulu, Hawaii. (http://www.extento.hawaii.edu/kbase/crop/Type/chrysode.htm), and from [2]Nafus DM (1997) An insect survey of the Federated States of Micronesia and Palau. South Pacific Commission, New Caledonia. Photo 1 Courtesy of Don Herbison-Evans, Macleay Museum, University of Sydney. (http://lepidoptera.butterflyhouse.com.au/plus/eriosoma.html). Photo 2 Merlin Crossley, UNSW, Sydney. Photo 3 *Chrysodeixis eriosoma.* Wikipedia. (https://en.wikipedia.org/wiki/Chrysodeixis_eriosoma#Adult). Photos 4&5 MAF Plant Health & Environment Laboratory (2011) Green Garden Looper *(Chrysodeixis eriosoma).* PaDIL -(http://www.padil.gov.au).

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