



Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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Rice leaf roller (415)



Photo 1. Larvae rice leaf roller, *Marasmia exigua*.



Photo 2. Adult rice leaf roller, *Marasmia exigua*.

Summary

- Restricted. Asia, Oceania. In American Samoa, Australia, Fiji, French Polynesia, Guam, New Caledonia, Northern Mariana Islands, Papua New Guinea. Samoa, Solomon Islands.
- In Asia, minor rice pest; in Fiji, major pest on high-yielding varieties beginning in 1970s. Also on maize, wild grasses.
- Larvae eat inside tunnels of folded or bound leaves, creating long white stripes. Fields appear grey.
- Eggs laid singly or in small groups, overlapping in rows, often on tallest plants. Larvae yellowish-green with pale-brown heads, up to 11 mm, feed together initially then disperse. Pupate on leaves. Adults pale-yellow wings with grey-brown borders, wingspan 13 mm, with 3-4 bands.
- Natural enemies: many egg and larval parasitoids and predators. In Fiji, *Trichogramma* and *Trathala flavo-orbitalis* destroy >40% of larvae.
- Biosecurity: introduction possible on produce contaminated with infested stems of host plants.
- Cultural control: increase plant spacing; fallow land or rotate crops; do not over-fertilise; remove weeds within and around crops; do not ratoon crops; flood fields after harvest or plough in straw and stubble; resistant varieties (new, high-yielding varieties susceptible).
- Chemical control: use neem, abamectin, or spinosad. Avoid broad-spectrum products.

Common Name

Rice leaf roller

Scientific Name

Marasmia exigua. It is also known as *Cnaphalocrocis exigua*, *Samea exigua*, and *Susumia exigua*. A moth in the Crambidae.

AUTHOR Grahame Jackson

¹Information from Singh SR (1997) Biology of the rice leafroller *Cnaphalocrocis (Marasmia) exigua* (Butler) (Lepidoptera): Pyralidae: Pauristinae in Fiji. PhD Thesis. Faculty of Science, Technology and Agriculture, University of Western Sydney, Australia; and Phatak MD (1975) Insect pests of rice. The international Rice Research Institute. 3rd printing; and from CABI *Marasmia exigua* (rice leaf roller) (2018) Crop Protection Compendium (<http://www.cabi.org/cpc>). Photos 1&2 Rice-feeding insects of Tropical Asia. IRRI Photos. Flickr. (<https://www.flickr.com/photos/ricephotos/6676485397>).

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The mobile application is available from the Google Play Store and Apple iTunes.

