

## Rice leaf roller (415)

### 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.



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



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

### Common Name

Rice leaf roller

### Scientific Name

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

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<sup>1</sup>Information 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. (<https://researchdirect.westernsydney.edu.au/islandora/object/uws:443>); and Phatak MD (1975) Insect pests of rice. The international Rice Research Institute, 3<sup>rd</sup> printing; and from CABI (2018) *Marasmia exigua* (rice leaf roller). Invasive Species Compendium. (<https://www.cabi.org/isc/datasheet/32496>). Photos 1&2 Rice-feeding insects of Tropical Asia. IRRI Photos. Flickr. (<https://www.flickr.com/photos/ricephotos/6676485397/>).

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