Pacific Pests, Pathogens, Weeds & Pesticides - Online edition

Sugarcane woolly aphid (531)

Summary

- Restricted. Asia, Oceania. In Fiji, PNG, Solomon Islands.
- Major damage reported from India, China. Reduced yields and sugar content; sooty mould growth on honeydew. Transmits *Sugarcane yellow leaf virus*, causing important emerging disease.
- Adults produce living young without fertilisation – males rare.
- Nymphs, oval, greenish-white or greenish-yellow, later stages covered in powdery wax; when mature, 2mm long, 1.5mm wide. Adults slightly larger, also covered in white wax. Winged adults produced when colony large or food scarce.
- Spread: aphids by flight, and on the wind. On canes, sent to the mill and sets used for planting.
- Biosecurity: risk from unofficial introductions of aphid-infested sets. Official movement of germplasm should always follow the FAO/IPBGR Technical Guidelines.
- Biocontrol: Coccinellid, *Synoycha grandis*, reared and released in China. Parasitoids known from Indonesia, Philippines), and predators (lacewing and pyralid moth) mass-reared (India).
- Cultural control: avoid planting sets from aphid- infested fields; apply organic fertilisers and manures rather than synthetic products; if practical, remove infested leaves; collect and burn trash after harvest.
- Chemical control: dip sets in hot-water, 50^{o}C for 30 mins; avoid broad-spectrum insecticides; use biorational insecticides (smallholders: neem, derris, chilli, pyrethrum; alternatively, white oil, soap or horticultural oil); use mycopesticide, *Metarhizium anisoliae*. If ants protecting aphids, control with insecticide (e.g., synthetic pyrethroid).

Photo 1. Nymphs and adults of sugarcane woolly aphid, *Ceratovacuna lanigera*. Note, the smallest nymphs are without the waxy covering, which increases as the nymphs develop, until they become adult when they are fully coved in a thick layer of the white waxy secretion. The adults are about 2 mm long.

Photo 2. Damage to sugarcane by sugarcane woolly aphid, *Ceratovacuna lanigera*. Note, the development of black sooty mould on leaves where honeydew accumulates.

Photo 3. Damage to sugarcane by sugarcane woolly aphid, *Ceratovacuna lanigera*. Note, the development of black sooty mould on leaves where honeydew accumulates.

Common Name

Sugarcane woolly aphid. It is also known as the white sugarcane aphid.

Scientific Name

Ceratovacuna lanigera. It is a member of the Aphididae.

AUTHOR Grahame Jackson

Information from CABI (2021 Caractovacuna lanigera (sugarcane woolly aphid). Crop Protection Compendium. (https://www.cabi.org/cpc/datasheet/16271); and Frison EA, Putter CAJ (eds.) (1993) FAO/IBPGR Technical Guidelines for the Safe Movement of Sugarcane Germplasm. Food and Agriculture Organization of the United Nations, Rome/ International Board for Plant Genetic Resources, Rome. (https://www.bioversityinternational.org/fileadmin/_migrated/uploads/tx_news/Sugarcane_259.pdf); and from Joshi S, Viraktamath CA (2004) The sugarcane woolly aphid, Ceratovacuna lanigera Zehntner (Hemiperta: Aphididae): its biology, pest status and control. Current Science 87(3): 307-316.

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