

Pacific Pests, Pathogens and Weeds - Online edition

Sugarcane Fiji disease (077)

Summary

- Widespread distribution. Asia, Africa, Oceania. On sugarcane, lowland pitpit, and other *Saccharum* species. Occasionally, an important virus disease.
- Galls occur on the leaves; leaves are stiff, stunted, and flat-topped (as if chewed).
- Spread is by planthoppers, and in planting setts.
- Cultural control: use varieties bred for resistance (Fiji and Australia); do not take planting material from affected plants, even if some stalks in a stool look healthy; carefully remove diseased plants as soon as disease seen without spreading insects; collect and burn trash, after harvest.
- Chemical control: none recommended.

Common Name

Fiji disease of sugarcane; also known as Fiji leaf gall.

Scientific Name

Sugarcane Fiji disease fijivirus; the abbreviation is FDV. The particles are 70 um in diameter, and belong to the family Reoviridae.



Photo 1. Galls on the midrib or larger veins of the leaf are the first sign of infection from *Sugarcane Fiji disease virus*.



Photo 4. The plant on the right has a 'witches' broom appearance from infection by *Sugarcane Fiji disease virus*.



Photo 2. Stunted plant infected by *Sugarcane Fiji disease virus*.



Photo 5. Adult and nymphs of *Perkinsiella* sp., the planthopper that spreads *Sugarcane Fiji disease virus*.



Photo 3. Leaflets infected by *Sugarcane Fiji disease virus* are short, stiff and green and have a 'bitten-off' appearance, as if chewed by cattle.

AUTHORS Helen Tsatsia & Grahame Jackson
Information from SRA (2015) Information sheet IS15001. Sugarcane Research Australia. (<https://sugarcane.com.au/wp-content/uploads/2017/03/Fiji-leaf-gall-IS13003-2.pdf>); and Fiji leaf gall (2018) SRA Sugarcane Research Australia (https://sugarcane.com.au/sugar_files/2017/03/Fiji-Gall-Leaf-Info-Sheet_2018-F.pdf); and from CABI (2012) Fiji disease virus (fiji disease of sugar cane). Crop Protection Compendium. (<https://www.cabi.org/cpc/datasheet/49800>). Photo 1 Bureau of Sugar Experimental Stations, Australia.

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