Pacific Pests, Pathogens and Weeds - Online edition

Sweetpotato chlorotic stunt (375)

Summary

Photo 1. Reddening of older leaves on sweet potato caused by *Sweet potato chlorotic stunt virus*.

- Worldwide distribution. In Oceania, only from Solomon Islands. Only known from sweetpotato. Abbreviation is SPCSV. It is a crinivirus.
- Damage: sometimes a reddening of older leaves, stunting; mostly no symptoms. With other viruses (*Sweetpotato feathery mottle virus*, *Sweetpotato virus G* and *Sweetpotato cavemo virus)*, leaves yellow, deformed, and few storage roots. SPCSV allows other viruses to reach high concentrations.
- Detection: grafting to *Ipomoea setosa*, or using ELISA and/or PCR.
- Spread: (i) whiteflies; (ii) cutting used for planting; (iii) sprouts from storage roots. Survival in vines, storage roots, and wild *Ipomoea*.
- Natural enemies: preserve predators (ladybird beetles, lacewings, hoverflies), and parasitoids.
- Cultural control: use planting material from healthy 'seed' scheme (i.e., mother plants regrown from meristems after heat treatments and tested negatively for SPCSV; weed wild *Ipomoea* species; new crops at least 15 m from old crops; rogue diseased plants; and collect and burn or bury debris at harvest.
- Chemical control: not recommended, uneconomic; if necessary, avoid broad-spectrum insecticides, use insecticidal soaps, white or horticultural oils.

Common Name

Sweetpotato chlorotic stunt virus.

Scientific Name

Sweetpotato chlorotic stunt is caused by a virus of the same name. Previously, the virus was known as sweet potato chlorotic dwarf disease. The abbreviation is SPCSV. Different strains of SPCSV are reported. The virus particles are long flexuous rods.

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Information from CABI Sweet potato chlorotic stunt virus (2018) Crop Protection Compendium (https://www.cabi.org/cpc/datasheet/18605); and Clark CA, *et al.* (2012) Sweet potato viruses: 15 years of progress on understanding and managing complex diseases. Plant Disease 96(2):168-185. (http://apsjournals.apsnet.org/doi/pdfplus/10.1094/PDIS-07-11-0550); and from Dennien *et al.* (2013) Growing healthy sweetpotato: best practices for producing planting material. ACIAR Monograph no. 153. Australian Centre for International Agricultural Research: Canberra. 176 pp. Photo 1 Segundo Fuentes. International Potato Center, Peru. (https://www.aspg.com.au/wp-content/uploads/2015/02/Sweetpotato-virus-detection-review-2018.pdf).

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