

## Papaya ringspot (virus-P) (194)

### Summary

- Worldwide distribution. On papaya and cucurbits. An important disease.
- Leaves with yellow and green patterns, distorted, small. Older leaves with dark green streaks on the stalks. Ringspots on the fruit.
- Spread by (i) aphids, (ii) the trade in nursery plants.
- Cultural control: remove volunteer papaya; restrict people entering plantations; remove disease trees in new plantations, and those in old blocks; netting; resistant varieties offer best (only) solution.
- Chemical control. not appropriate as aphids pick up virus from disease plants and spread it to healthy trees before insecticides kill them.

### Common Name

Papaya ringspot (virus-P)

### Scientific Name

*Papaya ringspot potyvirus*-P. The abbreviation for this virus is PRSV. There is another strain of this virus called *Papaya ringspot virus*-W. These two strains are very similar, except that type PRSV-W does not infect papaya; it infects cucurbits. Previously, the strain infesting cucurbits was known as *Watermelon mosaic virus*-1.

AUTHOR Grahame Jackson

Information from Davis RI, Ruabete TK (2010) Records of plant pathogenic viruses and virus-like agents from 22 Pacific island countries and territories: a review and an update. *Australasian Plant Pathology* 39, 265-291; and CABI (2018) *Papaya ringspot virus*. *Crop Protection Compendium*.

(<https://www.cabi.org/cpc/datasheet/45962>); and DAF (2020) *Papaya ringspot disease*. *Business Queensland*. Queensland Government; and from Gonsalves DS, et al. (2010) *Papaya ringspot virus*. *The Plant Health Instructor*. The American Phytopathological Society. (<https://www.apsnet.org/edcenter/disanpath/viral/pdlessons/Pages/PapayaRingspotVirus.aspx>). Photo 1 George Wall, formerly CALS/AES University of Guam. Photo 2 Department of Employment, Economic Development and Innovation, Queensland.

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Photo 1. Leaf symptoms on leaves of papaya affected with *Papaya ringspot virus* - type P. Note the leaves with light yellow and green patches (mosaics), and the deformed leaf on the left.



Photo 2. Dark green stripes on leaf stalks of papaya, caused by *Papaya ringspot virus* - type P.



Photo 3. Ringspots on papaya fruits, caused by *Papaya ringspot virus* - type P.

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