

Citrus root & collar rot (264)

Summary

- Worldwide distribution. On *bele* (see **Fact Sheet no. 149**), citrus, papaya (see **Fact Sheet no. 152**), passionfruit (see **Fact Sheet no.154**), pineapple, tobacco, tomato (see **Fact Sheet no. 157**) and many other hosts. An important disease.
- A water mould, an oomycete, not a fungus. Worse in wet soils. Root are infected and rot; collar rots occur causing the bark to dry, die and fall away, and the trunk to ooze gum.
- Above-ground, leaves yellow, dry and fall, and branches dieback. Lower fruit become infected.
- Cultural control: drainage; bud high on root stock; ensure nursery plants are disease free; weed; prune low-hanging branches; importantly, seek local advice on root stock varieties.
- Chemical control: copper - against lower fruit infections and collar rots; phosphorous acid after times of flowering and main leaf flushes.

Common Name

Citrus root and collar rot, *Phytophthora foot and root rot (Phytophthora nicotianae)*, and brown rot of citrus fruit (*Phytophthora citrophthora*).

Scientific Name

Two species are commonly found causing root and collar rots on citrus: *Phytophthora nicotianae*, and *Phytophthora citrophthora*.



Photo 1. Root and collar rot of citrus caused by *Phytophthora nicotianae*.



Photo 2. Aboveground signs of root and collar rot of citrus caused by *Phytophthora nicotianae*.

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Information from Hardy S, et al. (2012) Impacts and management of flooding and waterlogging in citrus orchards. NSW Government Department of Primary Industries; and from CABI (2015) *Phytophthora nicotianae* (black shank) and *Phytophthora citrophthora* (brown rot of citrus fruit). Crop Protection Compendium. (<https://www.cabi.org/cpc/datasheet/40983> and <https://www.cabi.org/cpc/datasheet/40958>). Photo 1 Kohler F, et al. (1997) *Diseases of cultivated crops in Pacific Island countries*. South Pacific Commission. Pirie Printers Pty Limited, Canberra, Australia. Photo 2 *Diseases of fruit crops in Australia* (2009). Editors, Tony Cooke, et al. CSIRO Publishing.

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