

Pacific Pests, Pathogens and Weeds - Online edition

Cocoa brown root rot (003)

Summary

- Worldwide distribution. In the tropics. The fungus has a wide host range, attacking native and exotic forest trees, plantation crops, including cocoa (and shade trees), oil palm, rubber, coffee. Attacks breadfruit (Pingelap disease). An important disease.
- Spores of the fungus infect tree stumps as land is cleared. The fungus travels along the roots to healthy trees, growing up to 1 m on the trunk as a thick brown crust, causing death. Brackets form on the old tree stumps 3-4 years after infection.
- Cultural control: survey plantations 6-monthly for brackets on stumps, and crusts on trunks; if seen, remove with all roots over 2.5 cm diameter.
- Chemical control: none recommended.

Common Name

Brown root rot

Scientific Name

Phellinus noxius



Photo 1. Sterile crust of *Phellinus noxius* on the outside of cocoa trunks. The brown crust has a distinct white margin.

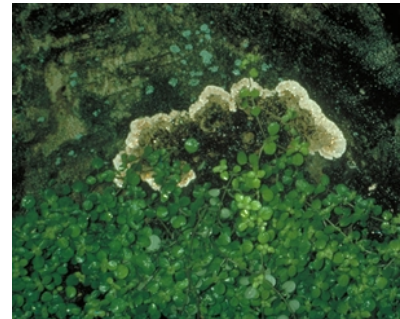


Photo 2. Sterile crust of *Phellinus noxius* on a breadfruit trunk.



Photo 4. Bracket of *Phellinus noxius* on the trunk of *Leucaena leucocephala*.



Photo 3. Bracket belonging to *Phellinus noxius* on a forest tree left for shade adjacent to the cocoa tree with a sterile 'stocking' (seen in Photo 1).

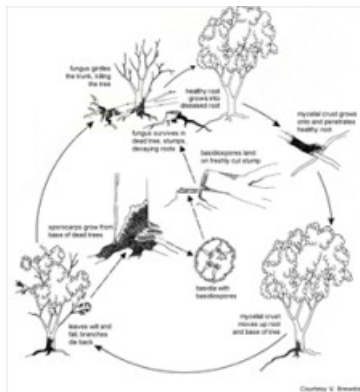


Diagram. Disease cycle of *Phellinus noxius*.

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Information from *Phellinus noxius* root rot. Department of Employment, Economic Development and Innovation (Queensland Government. (https://www.daf.qld.gov.au/_data/assets/pdf_file/0010/51211/phellinus_noxius_web.pdf); and CABI (2013) *Phellinus noxius* (brown tea root disease). Invasive Species Compendium. (<https://www.cabi.org/isc/datasheet/40154>); and from (including Diagram) APSnet Education Center. Brown root rot. The American Phytopathological Society. (<https://www.apsnet.org/edcenter/disanpath/fungalbasidio/pdlessons/Pages/BrownRootRot.aspx>).

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