



## Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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### Coconut bud rot (140)



Photo 1. Bud rot of coconut showing the collapse of the spear and younger leaves due to infection by *Phytophthora palmivora*, while the older leaves appear relatively healthy at this time.



Photo 2. Nuts are also infected by coconut bud rot causing premature nutfall. In this case, *Phytophthora hevae* was isolated from the rot.



Photo 3. Slices from nuts (Photo 2) showing internal infections by *Phytophthora hevae*.



Photo 4. Basal stem rot of coconut seedling, caused by *Phytophthora palmivora*.

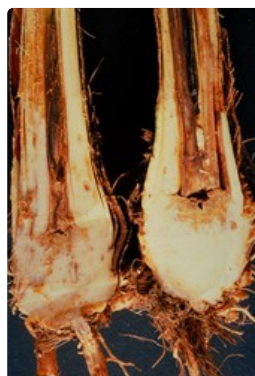


Photo 5. Coconut seedling (Photo 4) cut open to show the internal infection by *Phytophthora palmivora*.

### Summary

- Worldwide distribution. On coconut and other palms (e.g., betel nut), cocoa (see Fact Sheet no. 006) and papaya (see Fact Sheet no. 152), as well as weeds. A water mould, an oomycete, not a fungus is the cause. A minor disease in the Pacific islands, although occasional outbreaks in nurseries.

- In the field, first sign is a bending of the spear leaf, with light brown rots on the leaf stalks. Central leaves rot (there is a foul smell) and fall out together with the bud, and the palm dies. Outer leaves remain green for a few months. Outbreaks occur in nurseries too.
- Cultural control: good drainage to keep humidity low to reduce the time for spore germination; remove diseased palms; space at least 10 m apart to help air circulation; varietal differences exist. Malayan Dwarf is susceptible.
- Chemical control: not recommended but, if needed: (i) copper; or (ii) phosphorous acid or metalaxyl injections

## Common Name

Coconut bud rot

## Scientific Name

*Phytophthora palmivora*. Note, there may be more than one species of *Phytophthora* in the Pacific islands causing bud rot. For instance, *Phytophthora hevae* is also said to occur, causing a bud and nut rot of coconuts in New Caledonia (Photos 2&3).

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Information (and Photo 1) Gerlach WWP (1988) *Plant diseases of Western Samoa*. Samoan German Crop Protection Project, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Germany. Photos 2-5 Kohler F, Pellegrin F, Jackson G, McKenzie E (1997) *Diseases of cultivated crops in Pacific Island countries*. South Pacific Commission. Pirie Printers Pty Limited, Canberra, Australia.

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The mobile application is available from the Google Play Store and Apple iTunes.

