



Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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Cabbage white rust (134)



Photo 1. White rust (or white blisher rust), *Albugo ipomoeae-aquaticae*, on the underside of kangkong, *Ipomoea aquatica*.



Photo 2. Blisters of cabbage white rust, *Albugo candida*, on the outer leaves of Chinese cabbage (especially top right and bottom left).



Photo 3. Pustules of white blister rust, *Albugo candida*, on the underside of a Chinese cabbage leaf. The pustules have burst and are releasing the powdery spores. On the upper surface the spots are yellow-green.



Photo 4. Pustules of white blister rust, *Albugo candida*, on the underside of radish leaves. The pustules are round at first, smooth, white and shiny. Later, they are powdery after they have burst to release the spores. Severe infection causes leaves to become distorted and to die early.



Photo 5. Pustules of white blister rust, *Albugo candida*, on leaves of Indian mustard.



Photo 6. White blister rust, *Albugo* species, on *Ipomoea aquatica* (Tonga).



Photo 7. Close-up (Photo 6), white blister rust, *Albugo* species, on *Ipomoea aquatica* (Tonga), showing merging blisters containing the sporangia.

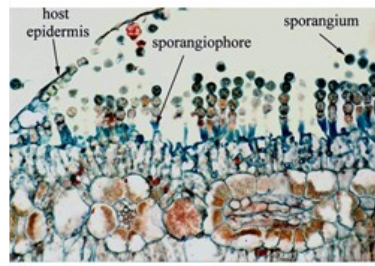


Diagram. White blister rust, *Albugo candida*, longitudinal section of pustule showing sporangiophores and chains of developing sporangia.

Summary

- Worldwide distribution. On members of the brassica family, e.g., broccoli, Brussels sprouts, cabbage, cauliflower, Chinese cabbage, radish, and cruciferous weeds. Another species attacks sweetpotato. White rust reduces market value.
- A water mould, an Oomycete, not a fungus is the cause. Spread by rain-splash, wind, insects, and on plants and seeds.
- Cultural control: good quality, reputable seed; long crop rotations; drip rather than overhead irrigation early in the day; use wide plant spacing; optimise plant nutrition; collect and burn debris after harvest; tolerant varieties (except broccoli).
- Chemical control: alternate copper or mancozeb with systemic metalaxyl or phosphorous acid.

Common Name

White rust, white blister

Scientific Name

Albugo candida. There are different strains. Other species are present in Pacific island countries, for instance, *Albugo ipomoeae-aquatica* (Photo 1) and *Albugo ipomoeae-panduratae*.

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Information (and Photos 1&4) from *Diseases of vegetable crops in Australia* (2010). Editors, Denis Persley, Tony Cooke, Susan House. CSIRO Publishing; and from Gerlach WWP (1988) *Plant diseases of Western Samoa*. Samoan German Crop Protection Project, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Germany. Photos 2&3 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. Photo 5 Jacque (Wright) Kami, formerly Plant Pathologist, Secretariat of the Pacific Community, Suva, Fiji. Photos 6&7 Mani Mua, SPC, Sigatoka Research Station, Fiji. Diagram Eric McKenzie (2013) *Albugo candida*. PaDIL - (<http://www.padil.gov.au>).

Produced with support from the Australian Centre for International Agricultural Research under project PC2010/090: *Strengthening integrated crop management research in the Pacific Islands in support of sustainable intensification of high-value crop production*, implemented by the University of Queensland and the Secretariat of the Pacific Community.

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