



Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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Cabbage boron deficiency (290)



Photo 1. Broccoli showing "hollow stem" symptom, typical of boron deficiency. Similar symptoms occur in cabbage and other members of the brassica family.

Summary

- Worldwid distribution. All members of cabbage family (in Papua New Guinea on cabbage, cauliflower, beetroot, celery, turnip).
- Small amounts needed for plant growth. Worse in sandy soils, > pH7, low organic matter, droughts, soil high in calcium. Boron does not move from older to younger leaves.
- Cabbage stems hollow, heads small, leaf stalks brittle; foul-smelling soft rots may occur.
- Cultural control: add plenty of compost; if symptoms persist, have a soil tested by government authorities to make sure boron is the cause.
- Chemical control: either (i) borax at 10 kg/ha (1 g/m²), and repeat at 2 weeks; or (ii) e.g., Solubar 6-12 kg/ha soil application (0.6-1.2 kg/m²).

Common Name

Cabbage hollow stem

Scientific Name

Boron deficiency

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¹ Graham KM (1971) Plant diseases of Fiji. Ministry of Overseas Development. Her Majesty's Stationery Office, London. Information from Brassicas, boron deficiency. The Centre for Agriculture, Food and the Environment, UMass-Amherst Vegetable Program. (<https://ag.umass.edu/fact-sheets/brassicas-boron-deficiency>); and from Kelling KA Understanding plant nutrients: Soil and applied boron. University of Wisconsin-Extension; and Dear BS, Weir RG (2004) Boron deficiency in pastures and field crops. AGFACTS NSW Agriculture. (<http://com.agronomy.wisc.edu/Management/pdfs/a2522.pdf>). Photo 1 Gerald Holmes, California Polytechnic State University at San Luis Obispo, Bugwood.org

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