

Pacific Pests, Pathogens and Weeds - Online edition

Tomato early blight (211)

Summary

- Worldwide distribution. On tomato, and many others in the same family, including potato, capsicum, eggplant, and some wild hosts in the potato family. An important disease.
- Brown spots on the older leaves with yellow margins, and dark brown rings. Leaves dry up and fall. Sunken spots on the fruit.
- Wind and rain spread spores; survival in debris and seed.
- Cultural control: 2-3-year rotation, avoid planting near old crops; save seed only from disease-free plants; remove 'volunteers', and weeds; check seedlings for disease; space plants (60-90cm); avoid overhead irrigation; ensure good nutrition; collect and burn debris after harvest; check for tolerant varieties.
- Chemical control: protectants - copper, mancozeb, or chlorothalonil (protectants); or strobilurins (systemics).

Common Name

Early blight of tomato and potato, target spot

Scientific Name

Alternaria solani



Photo 1. Large brown spots of early blight, *Alternaria solani*, on tomato, showing characteristic rings or targets.



Photo 2. Leaf spot caused by early blight on tomato, *Alternaria solani*.



Photo 4. Early blight, *Alternaria solani*, on a tomato stem, showing elongated target spots.



Photo 3. Characteristic rings or target structures on potato leaf caused by early leaf blight, *Alternaria solani*.



Photo 5. Early blight, *Alternaria solani*, on tomato fruit, showing black spores masses.



Photo 6. Spots of early blight, *Alternaria solani*, on potato.



Photo 7. Spots of *Alternaria solani* on potato leaves leading to collapse and death as they expand and join together.



Photo 8. Collapse of potato plant due to infection of early blight, *Alternaria solani*.

AUTHOR Grahame Jackson

Information from *Diseases of vegetable crops in Australia*(2010). Editors, Denis Persley, et al. CSIRO Publishing. Photos 1,4-6 Kohler F, et al. E (1997) *Diseases of cultivated crops in Pacific Island countries*. South Pacific Commission. Pirie Printers Pty Limited, Canberra, Australia. Photo 2 (taken by Eric McKenzie), and used in this fact sheet, appeared previously in McKenzie E (2013) *Alternaria solani*. PaDIL - (<http://www.padil.gov.au>). Photos 3,7&8 Jacquie (Wright) Kami, formerly Plant Pathologist, Secretariat of the Pacific Community.

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