



## Pacific Pests and Pathogens - Mini Fact Sheet Edition

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### Papaya crown rot (172)



Photo 1. Massive active dark green lesion on papaya stem of crown rot, *Erwinia papayae*.



Photo 2. Cankers on the stem of a papaya showing water-soaked margins caused by crown rot, *Erwinia papayae*.



Photo 3. Cankers on a papaya stem that have dried out, and no longer have water soaked margins, caused by crown rot, *Erwinia papayae*.



Photo 4. Young papaya tree showing wilt of leaves, and rots of petioles and loss of stem, caused by crown rot, *Erwinia papayae*.



Photo 5. Top of the stem has collapsed due to infection by crown rot, *Erwinia papayae*.



Photo 6. Early angular leaf spots of crown rot on the underside of a leaf, *Erwinia papayae*.



Photo 7. Angular leaf lesions on the upper surface caused by crown rot, *Erwinia papayae*.



Photo 8. Large angular leaf spot, underside of the leaf, caused by crown rot, *Erwinia papayae*.



Photo 9. Rot on an immature papaya fruit that has reached the seed cavity, caused by crown rot, *Erwinia papayae*.



Photo 10. Papaya plantation affected by crown rot, *Erwinia papayae*.

## Summary

- Widespread distribution. Southeast Asia, South America, Caribbean, Oceania. On papaya most commonly. An important bacterial disease.
- Leaves, stems and fruit are infected. Dark spreading smelling rots in the crown kill the growing point, or cankers develop in the trunks that cause the top of the stem to fall off.
- Spread is in wind and rain, and over long distances on seed. Survival occurs in stem cankers, not in the soil.
- Cultural control: certified seed, but if uncertain about quality of seed, treat in hot water at 50°C for 20 mins; tolerant varieties; collect trash and burn after harvest.
- Chemical control: copper.

## Common Name

Papaya bacterial crown rot, papaya bacterial decline, papaya bacterial stem canker

## Scientific Name

*Erwinia papayae*

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AUTHOR Grahame Jackson

Information (and Photos 1-10) from *Threat specific contingency plan: Bacterial crown rot*, *Erwinia papayae* (2011). Plant Health Australia; and from Fullerton RA *et al.* (2011) First record of bacterial crown rot of papaya (*Carica papaya*) caused by an *Erwinia papayae*-like bacterium in the Kingdom of Tonga. Plant Disease 95: 70.

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