



Pacific Pests and Pathogens - Mini Fact Sheet Edition

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Yam lesion nematode (008)



Photo 1. *Pratylenchus coffeae* in yam causes a shallow rot beneath the skin; the importance of the rot is not only the loss of flesh for eating, it is also the loss of planting material. Yams infected with dry rot do not sprout or, if they do, the cutting will be infested with nematodes which will attack the roots when the setts are planted.



Photo 2. *Pratylenchus coffeae* in yam causes a shallow rot beneath the skin.

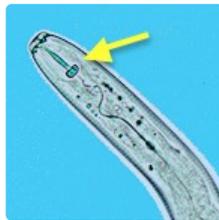


Photo 3. The head of *Pratylenchus* sp. showing the hollow spear or stylet (arrow), which is used to puncture cells in order to move through the roots, as well as to feed on their contents.



Photo 4. *Pratylenchus coffeae* inside a root.



Photo 5. Banana roots with purple/black discoloration caused by *Pratylenchus coffeae*. Infected roots rot and plants are weak and yields are small.



Photo 6. "Toppling" is a common symptom on banana when roots are attacked by *Pratylenchus coffeae*. Note this banana has fallen over before the fruits have matured; a sign of nematode attack. A similar symptom occurs when bananas are infected by the nematode *Radopholus similis*.

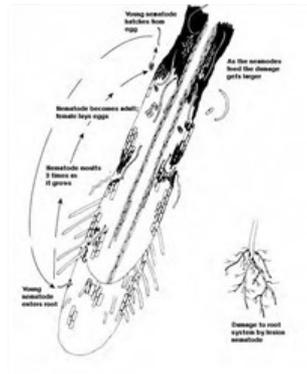


Diagram. Life cycle of *Pratylenchus coffeae*.

Summary

- Worldwide distribution. On yam, banana, and many other crops and weeds. Note; the burrowing nematode, *Radopholus similis*, causes a similar disease on banana (see **Fact Sheet no. 257**). An important disease.
- Eggs are laid in roots or nearby in soil; young larvae, and adults, tunnel through roots and tubers using a hollow spear to suck cell contents. Roots are killed.
- Spread is in ground water, and infested tubers and setts used for planting.
- Cultural control: non-host break crop (e.g., cassava, sweetpotato, ground legumes – *Mucuna* or *Pueraria*; discard setts with rot, or cut out with knife wiped in bleach; alternatively, treat yam setts in hot water (51°C for 10 mins.) or for banana setts (53°C for 20 mins.); avoid storing tubers with rots, and if seen remove; 3-year crop rotation.
- Chemical control: none recommended.

Common Name

Dry rot of yam, brown dry rot, banana root nematode, toppling of banana

Scientific Name

Pratylenchus coffeae

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Information (and Diagram) from Davis EL, MacCaidwin AE (2000) Lesion nematode disease. *The Plant Health Instructor*. DOI: 10.1094/PHI-I-2000-1030-02. Updated 2005; and from Hauser S, Coyne D (2010) A hot bath cleans all: Boiling water treatment of banana and plantain. (<https://www.ctc-n.org/sites/www.ctc-n.org/files/resources/4ea6bfd-2658-4dac-bf31-03861661b3dc.pdf>). Photo 1 V Vanstone *Pratylenchus penetrans*: a horticulturally significant root lesion nematode. Department of Agriculture and Food, Government of Western Australia. Photo 4 John Bridge, CABI, UK.

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

