

***Phytophthora citricola* and its Control**

M.D. Coffey

Department of Plant Pathology, University of California, Riverside, CA 92521-0122,
USA

Abstract. *Phytophthora citricola* has probably been associated with avocados since the beginnings of the industry in California. Several different genetic groups of *P. citricola* occur in California though one commonly attacking avocado is unique to that host. Outside California, *P. citricola* has also been reported as causing a fruit rot problem in Mexico (Fucikovsky. pers. comm.).

In California, *P. citricola* manifests itself as a crown rot problem which may sometimes express itself above ground as a visible trunk canker. It does not destroy the feeder roots though it can be readily isolated from them. It is also isolated from the soil.

The ecology of this *Phytophthora* has not been studied in detail. However, like most *Phytophthora* species it forms motile zoospores which facilitate spread of the disease. Unlike *P. cinnamomi*, *P. citricola* is a homothallic species which readily forms resistant oospores. These structures may facilitate the persistence of the pathogen for long periods of time in soil in a grove, prior to causing a disease problem.

P. citricola attacks avocado trees of all ages though is more common on 10 to 20-year-old trees. It causes a decline similar to that of root rot (*P. cinnamomi*). Control strategies involving fungicides will be described based on some preliminary experimental results obtained in California. In addition, a research plot was established in 1989 at the South Coast Field Station to evaluate rootstock performance.

About 20 percent of groves are seriously affected by this disease. Currently, the only reliable control measure involves prevention of its introduction into a grove. There is a need to establish effective guidelines for a nursery certification program to deal with this potentially serious disease problem.