

First Report of *Phytophthora cactorum* Causing Fruit Rot on Avocado in Spain. C. J. López-Herrera, Instituto de Agricultura Sostenible, CSIC, Apartado 4084, 14080 Córdoba, Spain; R. M. Pérez-Jiménez and T. Zea-Bonilla, CIFA, CICE, Junta de Andalucía, Cortijo La Cruz s/n, 29140 Churriana, Málaga, Spain.

The area of avocado (*Persea americana* Mill.) orchards in southern Spain has increased recently and is currently at 8,063 ha. Avocado production in this part of Spain was 72,581 t during 2003. During February 2004, apical necrosis was observed on avocado fruits (cv. Hass) in one orchard in Vélez-Málaga, Málaga Province, southern Spain. Dark brown lesions and necrotic flecking of the flesh also were observed on fruits. Isolations from the skin of the fruit previously washed with tap water and disinfested with 20% sodium hypochlorite on potato dextrose agar (PDA) consistently resulted in mycelial colonies. Sporangia produced on V8 juice by successive washing of mycelia with saline solution (1) measured 31 to 37.2 (33.3) \times 21.7 to 28.8 (24.2) μm in size. The pathogen was identified as *Phytophthora cactorum* on the basis of morphological structures (mycelia, sporangia, chlamydospores, and oospores) formed when grown on V8 juice and PDA (2). To confirm pathogenicity, a mycelial suspension was obtained by blending mycelia grown for 1 week on PDA in 200 ml of sterile water. Three healthy avocado fruits were inoculated with the suspension by injection; three other fruits were inoculated by placing a drop of suspension on the unbroken skin of the fruit. The same number of fruit was inoculated as controls using sterile water instead of mycelial suspension. The inoculated fruits were incubated for 5 days in a moist chamber at 24°C in darkness. Spots appeared on all fruits for both inoculation methods, and the pathogen was isolated and identified as *P. cactorum*. No symptoms appeared on the control fruits. To our knowledge, this is the first report of *P. cactorum* causing fruit rot on avocado in Spain.

References: (1) D. Chen and G. A. Zentmeyer. Mycologia 62:397, 1970. (2) G. M. Waterhouse and J. M. Waterston. No. 111 in: Descriptions of Pathogenic Fungi and Bacteria. CMI, Kew, Surrey, UK, 1966.