

## Abstract

Anthracnose is a serious postharvest disease in avocado causing losses in both quality and quantity. A study was conducted to screen commonly grown avocado cultivars for susceptibility to anthracnose and evaluate possible methods of reducing postharvest losses due to this disease. Four commonly grown avocado cultivars, Fuerte, Hass, Pinkerton and Puebla were screened for cultivar susceptibility to anthracnose. Both mature and almost mature fruits were used in order to establish the effect of maturity on fruit susceptibility to the pathogen. A total of 18 mature and 18 almost mature fruits were used for each variety. They were then artificially inoculated with conidial suspensions of *Colletotrichum gloeosporioides*. The most susceptible cultivar was used to investigate the efficacy of three fungicides; methyl thiophanate, fenhexamid, iprodione and hot water in reducing avocado post-harvest fruit rot due to anthracnose. The four cultivars were susceptible to the disease with varying degrees of susceptibility. Cultivar Fuerte was the most susceptible with a mean surface necrosis (SN) diameter of 4.0cm for the mature fruits while cultivar Hass was the least susceptible with a mean surface necrosis diameter of 2.5cm. Methyl thiophanate showed significant reduction of disease progression with a mean SN diameter of 1.3cm compared to iprodione (3.1cm), fenhexamid (3.3cm) and hot water (3.3cm). Cultivar Fuerte was highly susceptible to anthracnose. Methyl thiophanate was therefore considered to be a possible fungicide for post-harvest management of anthracnose fruit rot in avocado and can be further evaluated for this purpose alongside other methods.