

PREDICTING FRUIT ROTS BY QUANTIFYING INOCULUM POTENTIAL IN THE ORCHARD BEFORE HARVEST A-174

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The fruit rot pathogens *Colletotrichum gloeosporioides* and *C. acutatum* infect avocados following germination of rain dispersed spores to produce quiescent appressoria. Stimulation of appressorial formation is by contact with a hard surface such as leaves and fruit. A number of different methods to quantify inoculum potential pre-harvest without sacrificing valuable fruit were compared with the number of fruit developing rots after harvest. Fruit from several orchards with a consistent history of low and high disease were used. Three methods were compared; a. spores were washed from leaf discs, b. leaves were cleared with lacto-phenol to enable quantification of appressoria, and c. leaf discs were surface sterilised and placed on fungal growth media. Following quantification it was shown that appressoria and washed spore numbers were unrelated to final fruit rots, but number of leaf discs infected with *Colletotrichum* spp. was a good predictor.