

## AVOCADO FRUIT RESPONSES TO *Colletotrichum gloeosporioides* (Penz) SACC

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Anthrachnose caused by the fungal pathogen *Colletotrichum gloeosporioides* causes serious post harvest losses of avocado fruit worldwide. Typically, infections are initiated in the field on unripe fruit, but remain quiescent as germinated appressoria until fruit ripening. Over the past two decades pepper spot, a pre-harvest disease also caused by *C. gloeosporioides*, has been reported on 'Hass' avocado fruit in Australia and South Africa. The aim of this study was to compare molecular characteristics and pathogenicity of *Colletotrichum gloeosporioides* isolates from both anthracnose and pepper spot symptom types in order to determine if these two diseases are caused by different strains of the fungus. In the study, DNA banding patterns were compared, and pathogenicity of isolates was assessed on detached fruit in the laboratory, on leaves and petioles in the glasshouse, and on fruit on trees in the field. The research demonstrated that all isolates, to varying degrees, had some effect on unripe avocado fruit and pedicels on the tree at all stages of maturity as well as on detached ripening fruit. Likewise, all isolates had some effect on petioles of nursery avocado trees. All isolates were pathogenic at the high inoculum levels used in the experiments but they varied in their relative aggressiveness. DNA fingerprinting showed a lot of genetic variability among the isolates.