In Vitro Screening of Tolerance to Phytophthora cinnamomi in Avocado Rootstocks

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Abstract. New, existing and modified techniques were compared quantitatively for the *in vitro* screening of tolerance to *Phytophthora cinnamomi* in four avocado root-stock selections. Attraction of *P. cinnamomi* zoospores by exudates from excised avocado roots diffusing through a dialysis membrane accurately reflected known tolerance or susceptibility and eliminated the need for laborious processing of roots for microscopy. Similarly, lesion development on detached roots after inoculation with the pathogen correlated well with field performance of the various rootstocks, yet the technique was simple to perform. Suspending detached roots on glass rods in the culture medium reduced contamination and improved reliability of the root lesion technique.