

APPLICATIONS FOR A NEW ONE-STEP REAL-TIME RT-PCR TEST FOR DETECTION OF AVOCADO SUNBLOTCH VIROID (ASBVd)

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The effects of Avocado Sunblotch Viroid (ASBVd) have had damaging consequences on the international avocado industry. As nursery propagation and operation is a major transmission route for the viroid, it is important that material can be tested and certified negative prior to grafting. To this end we have developed a novel real-time RT-PCR assay to detect ASBVd for use in a nursery operation and certification programs. The assay was compared to conventional PCR methods using gel electrophoresis and shown to be highly sensitive and rapid due to its one-step real-time protocol. It also integrates an internal control to ensure the validity of the negative results observed on our source materials and to date, over 2000 samples have been analysed with no confirmed positive samples detected in New Zealand. This test has been developed to decrease the time-to-results, to reduce the testing costs and has been accredited under ISO17025 by International Accreditation New Zealand (IANZ). As such it will be an important tool in national certification programs and will assist in meeting the phytosanitary requirements for the international movement of avocado fruit.