Neofusicoccum parvum and *Phytium vexans*: NEW AVOCADO PATHOGENS DETECTED IN ANDALUSIA

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In Andalusia, avocado orchards are severely affected by two important soil-borne diseases; *Phytophthora cinnamomi* root rot and *Rosellinia necatrix* white root rot. However, during recent years avocado trees have been observed to develop symptoms such as death of twigs and branches in the tree canopy in circumstances which did not correspond to isolation of either of these pathogens. In order to establish the causal agent of these symptoms, branches were sampled and a *Neofusicoccum*-like fungus was isolated from sections of surface disinfested necrotic branch tissues. In addition, with selective medium CMA-P_{10}VP (routinely used for *Phytophthora cinnamomi* isolation from necrotic roots of symptomatic trees), a *Phythium*-like oomycete was detected – associated or not with the presence of *P. cinnamomi*. Recurrent results enabled us to conserve several isolates for species identification and to conduct pathogenicity tests.

Morphological characteristics and comparison of a sequence of rDNA fragments (ITS1, 5.8S rDNA and ITS2) confirmed the species associated with dieback symptoms as *Neofusicoccum parvum* (Pennycook & Samuels) Crous, Slippers & Phillips (anamorph of *Botryosphaeria parva*). We were also able to confirm that the oomycete isolated from the necrotic roots was *Phytium vexans* de Bary.

Pathogenicity tests using avocado plants cv. Topa-Topa confirmed pathogenicity of both species to avocado, since death of twigs was reproduced when plants were inoculated with *N. parvum* and wilting and necrosis of roots occured when inoculated with *P. vexans*. Re-isolations from diseased tissues were successful for both species.