IN VITRO STUDY ON THE COMPATIBILITY OF SINGLE-CONIDIUM *Trichoderma* sp. ISOLATES AS POTENTIAL AGENTS ON AVOCADO WHITE ROOT ROT

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Avocado white root rot, caused by *Rosellinia necatrix* Prilleux (anamorph *Dematophora necatrix* Hartig), is one of the main diseases detected on avocado trees in coastal areas of southern Spain. Biological methods have been established for the control of the fungus using isolates of *Trichoderma* spp., as biocontrol agents (BCA's). In this work reactions of mutual incompatibility between six single-conidium isolates of *Trichoderma* spp., and production *in vitro* of both volatile and non-volatile compounds that inhibit the growth of other isolates of same genus, were evaluated. For that reason, these isolates of *Trichoderma* were sown in Petri plates with a growth medium of malt-agar and different filtrates of them, and incubated at 24ºC in darkness for 17 days. Sequential measurements of colony growth at 3, 10 and 17 days after sowing were performed. The different crosses between isolates showed different division lines between the fungal colonies with overgrowth of colonies in some crossings and total compatibility in self-crossings performed. No production of volatile compounds that could inhibit the growth between isolates was observed. Nevertheless, three of the isolates studied showed greater inhibition effect, by releasing non-volatile compounds on the rest of the isolates, depending on the duration of incubation. This work suggests the convenience of previous compatibility studies of *Trichoderma* isolates when they are combined as BCA, since some of them may inhibit the growth from other isolates by producing non-volatile compounds.