BIOLOGICAL CONTROL OF *Phytophthora cinnamomi* AND *Rosellinia necatrix* WITH *Pseudomonas chlororaphis* STRAINS ISOLATED FROM AVOCADO RHIZOSPHERE

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The development of biological control of plant pathogens through the addition of biological control agents requires that these agents reach efficacy comparable to those achieved using chemical treatments. Thus, the use of native biocontrol bacterial strains, isolated from habitats in which they will be further incorporated, will be an adaptive advantage which could be effective in increasing efficacy. Therefore, in order to obtain local bacteria to be used as biological control agents against the two most important avocado diseases in the Andalusia region -Phytophthora root rot and white root rot–, soil and root samples from avocado orchards located in this area were sampled. From these samples, a collection of 330 bacterial strains was generated. Antagonistic activity of these bacterial strains against isolates with different virulence of *Phytophthora cinnamomi* Rands and *Rosellinia necatrix* (Hart.) Prill. was established. Subsequently, strains exhibiting stronger antagonism against both pathogens were further tested in bioassays with avocado plants. The results of these experiments led us to detect different strains of *Pseudomonas chlororaphis* that demonstrated biocontrol activity against both *P. cinnamomi* and *R. necatrix*. These strains are presently being characterised in order to establish different modes of action, among others; antifungal metabolites production (antibiotics, siderophores and hydrolytic enzymes), root colonization, and plant growth promotion. The addition of selected rhizobacteria to clonal commercial avocado plants to study soil persistence and the undertaking of new biocontrol tests will be our next objectives.