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Presence and persistence of bio-control agents *Rhizophagus intraradices* and *Trichoderma harzianum* T22 in pot conditions

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Difficulties in establishing root colonisation and continuing symbiosis relationship between plants and fungi may limit use and implementation of biocontrol agents (mycorrhizae and antagonist microorganisms) in nurseries. Rootstocks of Myrobalan29C, GF677, GiSeLa[®]6 and OHF19-89 were inoculated during transplantation, before acclimatisation phase, to evaluate the ability of *Rhizophagus intraradices* and *Trichoderma harzianum* T22 to colonise roots or substrate in pot conditions. Qualitative and quantitative measurements were carried out to check presence and persistence of biocontrol agents during a whole growing season: i) on roots: infection percentages, intensity and arbuscular abundance of *Rhizophagus*; ii) in substrates: *Trichoderma* cultures (CFU) on semi-selective media. The presence of *Rhizophagus* structures in roots was significant from April, after about six months from the first inoculums. *Rhizophagus* and *Trichoderma* persistence trends in pot showed an activity peak in July, after 10-11 months from the first inoculums. Plant production processes can be innovated following new approaches. Environmental friendly methods, based on soil fertility and microorganism activity, allow to produce plants tolerant to common pathogens and efficient in using natural resources (soil and water) from nursery to orchard.