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Mycorrizal potential of soils under organic and conventional fruticulture in Extremadura (Spain)

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In this research, the impact of the crop management on the presence and amount of micorryza in different plum (Prunus salicina Lindl.) tree farms subjected to conventional and organic farming in Extremadura (Spain) is studied. The results of the microbiological analysis confirm the presence of arbuscular mycorrhizal fungi (AM) populations in all the farms analyzed, regardless of the type of management used. However, the different soils did not present the same mycorrhizal composition. Thus, the number of propagules was significantly higher in the organic farms compared with the conventional ones, where their presence was minimal. Likewise, the percentage of mycorrhizal colonization after multiplying the initial population with the trap plant technique, showed differences depending on the agronomic management of the soils, being greater in the organic farms. With respect to the number of spores extracted, a greater number was also observed in the organic fields.