

DIVERSITY OF ARBUSCULAR MYCORRHIZAL FUNGI ON AVOCADO ORCHARDS FROM MICHOACAN

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Avocado trees lack root hairs. It has been demonstrated that arbuscular mycorrhiza forming fungi (AMF) colonize these fruit trees, favour water absorption and nutrient uptake by plants, and also enhance growth and ameliorate plant health. However, the symbiotic associations in the field and the role AMF may play on the production system are not currently well documented; approaches on mycorrhizal symbiosis and its yield effects have been mainly addressed to plant nursery as well as to *in vitro* propagation. This caused the present study, which aims at determining AMF diversity and abundance on avocado orchards soil in Michoacan, Mexico. The experiment was developed in orchards with seven different climates, under two moisture conditions (irrigation and rain fed) and in two times of the year (rainy and low water season). Rhizosphere samples were obtained from soils of 14 orchards; spores from those samples were extracted and mounted on glass slides to identify and quantify them under microscope. 22 morphospecies corresponding to five genera, from three families and two orders, were identified; seven of them had not been previously reported as associated with the avocado culture. In the low water season species, distribution of the three genera was as shown: *Glomus* (39.43%), *Acaulospora* (26.23%) and *Scutellospora* (21%) and while in the rainy season the distribution among these genera differed: *Glomus* (37.56%), *Scutellospora* (29.16%) and *Acaulospora* (23.24%).