

ARTÍCULO CIENTÍFICO

CHARACTERIZATION OF ARBUSTIVE MYCORRHIZES IN DIFFERENT GENETIC MATERIALS OF OIL PALM, CONCORDIA - ECUADOR

López Ulloa, Ruth Magdalena^{a,b,*}; Montalvo Orrico, Camila^b

^aUniversidad Regional Amazónica Ikiam, vía Tena Muyuma km 7, Tena, Ecuador

^bUniversidad de las Américas, Av. De los Granados E12-41 y Colimes, Quito, Ecuador

Abstract

To evaluate the influence of oil palm genetic material on mycorrhizal behavior, two farms were located in Concordia, Ecuador. They delimited 15 plots with five types of oil palms (Taisha x Calabar, Taisha x Angola, Coarí x La Mé, *Elaeis guineensis* INIAP and *Elaeis guineensis* illegitimate). In each plot a composite sample of soil was taken at a depth of 0-20 cm, in each sample the number of spores and percentage of mycorrhizal colonization and physical and chemical properties were analyzed. The results of the ANOVA analysis indicate that the number of spores differs according to the genetic material, being significantly higher in the plots of the palm *Elaeis guineensis* illegitimate in relation to the palms Coarí x La Mé and *Elaeis guineensis* INIAP. However, the high variability of the contents of potassium, electrical conductivity and percentage of silt, and low values of phosphorus available in the soils of the *Elaeis guineensis* illegitimate palm (Farm 2), compared to the soils of the Coarí x La Mé and *Elaeis guineensis* INIAP (Farm 1). This not allows concluding, that the genetic material is the main factor responsible for the difference in the mycorrhizal population in oil palm crops.

Keywords: *Colonization and mycorrhizal abundance, oil palm species, physical chemical soil properties.*

* Correspondencia a: Universidad Regional Amazónica Ikiam, vía Tena- Muyuna Km 7, Tena, Ecuador: Teléfono +593 637 00040
Correo electrónico: ruth.lopez@ikiam.edu.ec;