

LA INFLUENCIA DE ORGANISMOS DIAZOTRÓFICOS DEBAJO DE MICORRIZA ARBUSCULAR EN RIZOSFERA DE *Cajanus cajan*

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Cajanus cajan is a size summer legume with high and semi-perennial cycle. Its strongest feature is the aggressive and robust root system that reaches deep into the soil. It is rustic and grows well in low fertility soils being a major producer of biomass and nitrogen fixing. The experiment was conducted at the Agricultural Microbiology Laboratory of the Evangelical School of Goianésia. The experimental design used was entirely randomized with four replications arranged in two treatments being one applying diazotrophs (*Rhizobium tropici* and *Azospirillum brasiliense*) and a treatment without application. For the laboratory tests were taken 50 cm³ of rhizosphere with root during the flowering period. To determine the percentage of colonization, the roots were clarified and stained with 0.05% Trypan Blue-of lactoglycerol and the evaluation was made in a stereomicroscope, following the procedure of intersection of the quadrants. AMF spores were extracted by wet sieving method followed by centrifugation in 50% sucrose. The identification of the genera of arbuscular mycorrhizal fungi were carried out from the morphological characteristics of spores on slides with pure polyvinyl lacto-glycerol and mixed with Melzer and classified according to the International settings Culture Collection of arbuscular and Vesicular-arbuscular Mycorrhizal Fungi. The spore density values were higher in the treatments without application of nitrogen fixing bacteria when compared to treatment with application. Inoculation of diazotrophic organisms caused no statistical differences between treatments in mycorrhizal colonization rate values. The genres *Diversispora* sp. and *Scrobiculata* sp. were found exclusively in the non-inoculated treatment diazotrophs. Genres *Clareidoglomus* sp. and *Scutellospora* sp. were the only identified in samples with the application of nitrogen fixing bacteria. While genres *Acaulospora* sp., *Sclerocystis* sp., *Glomus* sp. and *Gigaspora* spp. were present in both samples