

TITLE: INFLUENCE OF DIAZOTROPHIC BODIES UNDER ARBUSCULAR MYCORRHIZAL FUNGI IN RHIZOSPHERE OF GUANDU ANÃO;

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Abstract: The Guandu anão bean can be planted alone or between the lines of perennial fruits and also intercropped with grasses. It is a shrubby plant with indeterminate growth. With a cycle around 120 days, it is the period that it should be cut and incorporated, being used as green manure. 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 cm<sup>3</sup> of rhizosphere with root during the flowering period. To determine the percentage of colonization of the roots were clarified and stained with 0.05% Trypan Blue-of lactoglycerol in colonization and 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. No genre has been identified solely on without inoculation with diazotrophs. Genres *Sclerocystis sp.* and *Scrobiculata sp.* were the only identified in samples with application of nitrogen fixing bacteria. Genres *Acaulospora sp.*, *Diversispora sp.*, *Scutellospora sp.*, *Glomus sp.* and *Gigaspora spp.* were present in both samples.

Keywords: AMF, Cover Crops, green adubation