TITLE: FREQUENCY OF MYCORRHIZAL SPECIES IN DIFFERENT PLANT COVERAGE IN NO-TILLAGE WITH AND WITHOUT ADDING NITROGEN

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ABSTRACT: Coverage plants can influence the biological functioning of the soil and, consequently, in its quality and arbuscular mycorrhizal fungi (AMFs) are one of the main microbiological parameters that can be closely related to vegetable sanity, thus being considered a good indicator of influences in soil management systems. The objective of this work was to evaluate the frequency of AMF species in different plants of coverage in no-tillage with and without adding nitrogen. The experiment was conducted in red distrophic latosol, a clay soil in the experimental area of Embrapa Cerrados. The experimental design was in random blocks, in the scheme of subplots, with three replications. The following coverage plants were used: feijão bravo do Ceará (Canassess brasiliensis M.), guandu (Cajanus cajan), crotalaria-juncea (Crotalaria juncea), millet (Pennisetum glaucum), sorghum (Sorghum bicolor), with and without applications of nitrogen in coverage in the previous culture, which was corn. The absolute control of the experiment was the treatment without use of hedge plants (spontaneous vegetation). For the identification of the species of FMAs from the morphological characteristics, spores were separated according to their morphotypes and mounted on blades with polyvinyl-lacto-glycerol (PVLG) pure and PVLG mixed with Melzer (1:1 V/V). The identification of the species of fungi mycorrhizal was held in the Fungi Laboratory of Embrapa Agrobiologia, following the descriptions of the reference cultures present at the International Culture Collection of Arbuscular and Vesicular- Arbuscular Mycorrhizal Fungi. The species of genera Acaulospora, Archeospora, Glomus, Gigaspora and Scutellospora were identified in the rhizosphere of crotalária, feijão bravo do Ceará, sorghum, guandu, millet and spontaneous vegetation, with and without nitrogen application. The only species that occurred associated with all coverage plants, with and without nitrogen application in the previous culture, was the S. pellucida. The species Ar. leptoticha and S. persica were only identified in rhizosphere of crotalaria under nitrogen application, whereas A. tuberculata, S. gregaria and Gigaspora sp were found only under crotalaria without nitrogen application. The species A. scrobiculata, G. macrocarpum and S. pellucida were identified in rhizosphere of crotalaria with and without nitrogen application.

KEYWORDS: MAF, Fungi,, No-till