TITLE: EASILY REMOVABLE GLOMALIN IN NO TILLAGE PLANTING 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 (MAFs) are one of the main microbiological parameters that can be closely related to vegetable sanity, thus being considered a good indicator of impacts on soil management systems. The objective of this work was to evaluate the easily removable glomalin 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 (Canavalia brasiliensis M.), guandu (Cajanus cajan), crotalária-juncea (Crotalaria juncea), millet (Pennisetum glaucum), sorghum (Sorghum bicolor), with and without applications of nitrogen as a 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 determination of the reactive protein easily removable (or glomalin easily extractable), the Bradford method was used, following Wright's methodology and Upadhyaya. It weighed 1 g of soil in falcon type tubes, with capacity for 50 ml. Duplicates of each soil sample were made. They added 8 ml of sodium citrate buffer solution 20mm, pH 7.0, in each tube, which were autoclaved for 30 minutes at 121 °C. Then the vials were centrifuged at 5000 rpm for 10 minutes. For determining the concentration of glomalin, 50 microliters of the extract in the test tube were pipetted by adding 1 ml of the Bradford reagent to the tubes. After this procedure, the tubes were taken for vortex agitation, awaiting 10 minutes to start reading absorbance at spectrophotometer at 595 nm. In the values pertaining to glomalin easily removable, it was not identified significant difference between the species of coverage plants and the application of nitrogen in the coverage of corn, planted previously.

KEYWORDS: MAF, Fungi,, Gomalin.