

TITLE: MYCORRHIZAL FUNGI IN CONSERVATION SYSTEMS IN THE SÃO PATRICIAN VALLEY REGION, GOIAS

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ABSTRACT

The importance of the sustainable use of natural resources, especially soil and water, has been a subject of increasing relevance. The increase of human activity in ecosystems has a great impact on the dynamics of soil organisms. The comparison between cultivated systems and native areas without anthropic interference can be used as a soil quality index. Microorganisms are ideal indicators because they are very sensitive to changes and demonstrate variations in their community when subjected to stressful environments. The objective of the work was to evaluate the rate of colonization mycorrhizal and the density of spores as the soil quality index in the agroecosystems, Agroecological Sustainable Integrated Agrossilvipastoril System, Agroforestry System and Isolation of Springs in the São Patricio Valley region. The experiment was conducted in the areas of the Vitoria settlement (-15.46113139,-49.07644666), Nova Aurora (-15.31924036,-49.38826099) and Itajá (-15.3157786, 49.32434083), in the region of Vale do São Patricio, in Goianésia, Goiás, and in a native Cerrado area (-15.326302,-48.903626), in the Vila Propício-GO. The climate is classified, as Tropical (AW), being characterized by two well-defined seasons (drought and rainy), as well as the occurrence of drought periods during the rainy season. The experimental design adopted was a factorial 5x3 in randomized blocks design with three replications plus an additional treatment of native Cerrado. Factor 1 was represented by the systems used: Agroecological Sustainable Integrated Agrossilvipastoril System, Agroforestry System and Isolation of Springs and factor 2 was represented by the time of installation of systems: 4 years, 2 years, and newly installed. There was no significant minimal difference between the treatments studied. Regardless of the agroecosystem, and the age of establishment that they were found, the spore density and the colonization rate were equivalent to the native system, such as the Cerrado.

Keywords: agroecology, fungi mycorrhizal, Cerrado, microbiology of the soil.

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