

**Title: SEASONALITY AND SUCCESSION INFLUENCE IN THE DIVERSITY OF MYCORRHIZAL FUNGI IN TROPICAL DRY FOREST FRAGMENTS IN MG**

**Authors:** Simões, F.L.<sup>1</sup>, Silva, T.M.<sup>1</sup>, Santos, D.L.<sup>1</sup>, Pereira, A.M.<sup>1</sup>, Botelho, B.L.<sup>1</sup>, Valério, H.M.<sup>1</sup>

**Institution:** <sup>1</sup>UNIMONTES - Universidade Estadual de Montes Claros - Vila Mauricéia, S\N

**Abstract:**

Mycorrhizal fungi (AMF) are mutual micro-symbionts that are associated with roots of species of most plant families. In this relationship, the host plant supplies the fungus with assimilates and the mycorrhizal benefits plant growth in various ways, being the most important benefit to absorption of nutrients in the soil solution. Mycorrhizae are considered important component in recovery and restoration of vegetation in fragile or degraded areas as well as in maintaining the biodiversity of plants and ecosystem functions. The Biological Reserve of Serra Azul (RBSA), in the region of transition between Caatinga and Cerrado in the north of Minas Gerais, belongs to the original formation of the set dry forest and is one of the few remaining dry forests formation that existing in MG. So, the aim of this study was to correlate the effects of seasonality and succession in AMF diversity in dry forest. The population survey was carried out of the mycorrhizae in 3 installments in RBSA in the three successional stages (early, intermediate and late) in the dry and rainy seasons. Following the soil samplings, the samples were centrifuged and the spores were identified and quantified. In the dry season it was identified a total of six genera and 13 species of richness, in the rainy season a total number of 6 genera and 11 species were identified. In the dry season, the initial stages, intermediate and late had 11, 9, 8 species respectively, and the species *Glomus spinuliferum* and *Glomus aurantium* were exclusive to the early stage. In the early stages of the rainy season, intermediate and late showed 6, 8, 6 species respectively, and the *Glomus mossae* species was found only in the initial stage. The frequency of species showed different between both successional stages as to seasonality. In areas collected, vegetation, water stress and soil attributes influenced the variation of diversity (richness and abundance). We conclude that 10 of the 13 species of AMF has maintained its relative frequency in successional stages and some were unique to certain stage, demonstrating influence the vegetation structure, abundance and species composition of mycorrhizae in tropical dry forest from MG state.

**Keywords:** species, mycorrhizae, succession, fungi, seasonality

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