

TITLE: DENSITY OF AMF SPORES IN FIVE VARIETIES OF WHEAT
CULTIVATED IN DIRECT PLANTING AND CONVENTIONAL PLANTING.

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ABSTRACT: The expansion of wheat culture to the Brazilian Cerrado region can contribute to the increase in the production of this important cereal. Studies on the development and productivity of wheat grains and the use of edaphic biological elements are fundamental to the culture of wheat, with a view to the high technological potential used in this region. The objective of this work was to evaluate the density of AMF spores in five varieties of wheat cultivated in direct planting and conventional planting. The experimental design was in random blocks with three replications, with subplots scheme. The plots were composed by two production systems: direct planting and conventional planting and the subplots by five wheat genotypes: Aliança, Brilhante, BRS 254, PF02200337 and PF0220062. Arbuscular Mychorryzal Fungi (AMFs) were extracted from the soil using 50 cm³ of each compound sample, by the damp sieving technique followed by water centrifugation and sucrose solution at 50%. The spores have been separated according to their phenotypic characteristics as color, size and shape, composing the different morphotypes, under stereoscopic binocular magnifier. The experiment was conducted at Embrapa Cerrados, Planaltina, DF. In all the genotypes studied, as well as in the mycorrhiza colonization, the number of spores was greater in the system of direct planting, compared to conventional, and presenting, in general, twice the number of spores. Conservational planting systems have an ideal environment for the development of edaphic organisms, either from a chemical standpoint, such as nutrient availability or from a physical standpoint, such as a lower thermal amplitude with milder temperatures and water availability. In the direct planting system, the PF0220062 and Brilhante genotypes presented the largest number of spores (247 and 238.33 spores per 50 g of soil, respectively). The genotypes BRS264, PF02200337 and the Aliança presented the lowest number of spores in the soil. In conventional planting the Brilhante, PF0220062 and PF02200337 presented the largest numbers of spores for 50 g of soil (128.33, 132.33 and 136.67, respectively) that the Aliança and the BRS 264.

Keywords: Fungi; MAF; *Triticum spp.*