

TITLE: FREQUENCY OF MYCORRHIZAL SPECIES 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 frequency of AMF (arbuscular mycorrhizal fungi) species in five varieties of wheat cultivated in direct and conventional planting. The experiment was conducted at Embrapa Cerrados, Planaltina, DF. The experimental design was in random blocks with three repetitions, with subplots scheme. The plots were composed by two production systems: direct and conventional planting and the subplots by five wheat genotypes: Aliança, Brilhante, BRS 254, PF02200337 and PF0220062. For the identification of the species of AMFs from the morphological characteristics, the 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 AMFs was performed at the mycorrhizal fungi Laboratory of Embrapa Agrobiologia, with the aid of an optical microscope fitted with micrometric eyepiece. To subsidize the work of identification, original articles of the description of the species and descriptions of the species provided on the website of the "International Culture Collection of Arbuscular and Vesicular-Arbuscular Mycorrhizal Fungi" were used. The species of the genus *Acaulospora* were found in both cultivation systems and wheat genotypes investigated, the identified individuals were *A. laevis*, *A. scrobiculata*, *A. denticulata*, *A. foveata* and *A. tuberculata*. The species *A. foveata* was found only under the system of direct planting and *A. Tuberculata* under wheat plants cultivated in conventional system and only in the rhizosphere of the genotype PF0220062. *Archaeospora Leotpticha* was the only species identified within the genus and only in the BRS264 variety under conventional planting system. Species of the genus *Glomus* were also identified in both cultivation systems, and the species were *G. clavisporum*, *G. tortuosum* and *G. macrocarpum* were found in all varieties in both cultivation systems. *G. microagregatum* has been identified only in the PF0220062 variety under a no-tillage system and *G. lamellosum* in the PF02200337 variety under conventional planting system.

KEYWORDS: MAF, Fungi, Triticale.