

# THE INFLUENCE OF TREATMENTS WITH VARIOUS PHYTOSANITARY PRODUCTS (FUNGICIDES) ON THE ATTACK OF SOME PHYTOPATHOGENIC FUNGI ON BARLEY HARVEST, DONAU VARIETY, IN 2019 PEDOCLIMATIC CONDITIONS OF THE EASTERN BARAGAN

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## Abstract

This study aims at monitoring the dynamics of the occurrence and evolution of the attack of some pathogenic agents to barley, among which we mention: mildew (*Blumeria graminis* f.sp. *hordei*), leaf stripe (*Pyrenophora graminea*) and barley's rust (*Puccinia hordei*). Also, the influence of applying these fungicides on the harvest was monitored, as compared to the untreated control variant. For this study, an experiment with 6 treatment variants was created, in which the following phytosanitary products were used, as follows: ACANTO PLUS (picoxystrobin 200 g/l + cyproconazole 80 g/l); MYSTIC 250 EC (tebuconazole 250 g/l); FALCON PRO (prothioconazole 53 g/l+tebuconazole 148 g/l + spiroxamine 224 g/l); CAPALO (fenpropimorph 200g/l, epoxiconazole 62.5 g/l, metrafenon 75g/l). The treatment variants were the following: V1 - ACANTO PLUS 0.5 L/HA, 1 treatment applied at spike's release - blooming (5.05.2019); V2 - ACANTO PLUS 0.5 L/HA, 1 treatment applied in "bellows" phase (20.04.2019) + 1 treatment applied at the beginning of kernel's filling (27.05.2019); V3 - CAPALO 1.0 L/HA, 1 treatment applied at spike's release - blooming (5.05.2019); V4 - MYSTIC 250 EC 0.5 L/HA + 1 CAPALO 0.5 L/HA treatment applied in "bellows" phase (20.04.2019) + 1 treatment applied at the beginning of kernel's filling (27.05.2019); V5 - FALCON PRO 0.6 L/HA, 1 treatment applied at spike's release - blooming (5.05.2019); V6 - ACANTO PLUS 0.5 L/HA +- FALCON PRO 0.5 L/HA, 1 treatment applied in "bellows" phase (20.04.2019), 1 treatment applied at the beginning of kernel's filling (27.05.2019), V7 – Untreated control variant. The experiment was placed in Latin square; the 7 variants being placed in 7 repetitions. The first two leaves placed under the spike had been analysed for the above. Among the pathogenic agents under monitoring, the greatest attacks were produced by *Pyrenophora graminea* fungus which produces barley leaf stripe disease. The harvests of the variants were the following: V1 - 5634 kg/ha, V2 - 5951 kg/ha, V3 - 5669 kg/ha, V4 - 5658 kg/ha, V5 - 5494kg/ha, V6 - 5704 kg/ha and V7 (untreated control variant) - 5506 kg/ha.

**Key words:** *Pyrenophora*, cyproconazole, latin square