

# THE INFLUENCE OF TREATMENTS WITH VARIOUS PHYTOSANITARY PRODUCTS (FUNGICIDES) ON THE ATTACK OF SOME PHYTOPATHOGENIC FUNGI ON BARLEY HARVEST, DONAU VARIETY, IN 2020 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 (*Blummeria graminis* f.sp. *hordei*), leaf stripe (*Pyrenophora graminea*) and barley's rust (*Puccinia hordei*). Also, the influence of applying these fungicides on the production 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: AMISTAR (azoxystrobin 250 g/l), EVOLUS (prochloraz 320 g/l, tebuconazole 160 g/l, proquinazid 40g/l); FALCON PRO (prothioconazol 53 g/l, spiroxamine 224 g/l, tebuconazole 148 g/l), TOPSIN 500 SC (thiophanate-methyl 500 g/l), ORIUS 25 EW (250 g/l tebuconazole) and DITHANE M 45 (mancozeb 80%). The treatment variants were the following V1- AMISTAR 0.75 L/HA - 1 treatment applied at spike's release - 13.05.2020, V2- EVOLUS 0.75 L/HA - 1 treatment applied at spike's release - 13.05.2020, V3- FALCON PRO 0.6 L/HA 1 treatment applied at spike's release - 13.05.2020, V4- TOPSIN 500 SC 1.0 L/HA + DITHANE M 45 2 KG/HA - 1 treatment applied at spike's release - 13.05.2020, V5- ORIUS 25 EW 0.5 L/HA 1 + DITHANE M 45 2 KG/HA - 1 treatment applied at spike's release - 13.05.2020, V6 - ORIUS 25 EW 0.5 L/HA + TOPSIN 500 SC 1.0 L/HA - 1 treatment applied at spike's release - 13.05.2020, V7 - Untreated control variant. The experiment was placed in Latin square, the 7 variants being placed in 7 repetitions. The experiment was performed in the absence of irrigation. 2020 had been one of the draughtiest years in the last 3 decades, this fact leading to a poorer presence of the attack of the pathogenic agents specific to barley. The first two leaves placed under the spike had been analysed for the above. Among the pathogenic agents under monitoring, poor attacks produced by *Pyrenophora graminea* fungus which produces barley leaf stripe disease were observed. No attacks by *Blumeria* and *Puccinia* fungi were observed.

**Key words:** *Pyrenophora*, cyproconazole, Latin square.