

THE INFLUENCE OF TREATMENTS WITH VARIOUS PHYTOSANITARY PRODUCTS (FUNGICIDES) ON THE ATTACK OF SOME PHYTOPATHOGENIC FUNGI ON BARLEY HARVEST, DONAU VARIETY, IN 2021 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 pathogens 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, as well as of the number of treatments/ha as compared to the untreated control variant, has been monitored. For this study, an experiment with 6 treatment variants was created, being used the following phytosanitary products: EVALIA (azoxystrobin 250 g/l), EVOLUS (prochloraz 320 g/l, tebuconazole 160 g/l, proquinazid 40g/l); FALCON PRO (prothioconazole 53 g/l, spiroxamine 224 g/l, tebuconazole 148 g/l). The treatment variants were the following: V1- EVALIA 1.00 L/HA 2 treatments (the first treatment applied at straw's extension - 17.04.2021, the second treatment applied at the end of blooming - 19.05.2021, V2 - EVOLUS 0.75 L/HA 2 treatments (the first treatment applied at straw's extension - 17.04.2021, the second treatment applied at the end of blooming - 19.05.2021), V3- FALCON PRO - 0.6 L/HA 2 treatments (the first treatment applied at straw's extension - 17.04.2021, the second treatment applied at the end of blooming - 19.05.2021), V4 - EVALIA 1.00 L/HA 1 treatment applied in "bellows" - earing phase - 7.05.2021, V5- EVOLUS 0.75 L/HA 1 treatment applied in "bellows" - earing phase - 7.05.2021, V6 - FALCON PRO - 0.8 L/HA 1 treatment applied in "bellows" - earing phase - 7.05.2021, V7- untreated control variant. The experiment was placed in Latin square, the 7 variants being placed in 7 repetitions. The year 2021 had rainy spring and beginning of summer, favorable to the attacks of some pathogens. The first two leaves under the ear had been analyzed, in order to determine the attack of the pathogens. Among the pathogens monitored, relatively strong attacks produced by *the Pyrenophora graminea* fungus (producing, in barley, the disease known as leaf stripe disease) had been observed. The yields of the variants were the following: V1 - 6.748 to/ha, V2 - 6.536 to/ha, V3 - 7.103 to/ha, V4 - 6.834 to/ha, V5 - 7.049 to/ha, V6 - 7.440 to/ha and V7 - 5.704 to/ha.

Key words: *Pyrenophora* spp., *Blumeria* spp., latin square