

THE INFLUENCE OF TREATMENTS WITH VARIOUS PHYTOSANITARY PRODUCTS (FUNGICIDES) ON THE ATTACK OF SOME PHYTOPATHOGENIC FUNGI ON BARLEY HARVEST, DONAU VARIETY, IN 2022 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), RETENGO (200 g/l pyraclostrobin) and NATIVO PRO 325 SL (prothioconazole 175 g/l + trifloxystrobin 150 g/l). The treatment variants were the following: V1- RETENGO 0.8 l/ha, 1 treatment was applied on 13th April + 1 treatment on 17th May; V2 – EVALIA 0.75 l/ha, 1 treatment was applied on 13th April +1 treatment on 17th May; V3-NATIVO PRO 0.6l/ha, 1 treatment was applied on 13th April + 1 treatment on 17th May; V4- RETENGO 0.8 l/ha, 1 treatment was applied on 22nd May, V5- EVALIA 1.0 l/ha, 1 treatment was applied on 22nd May, V6- NATIVO 0.7 l/ha, 1 treatment was applied on 22nd May, V7 - Untreated Control Variant. The experiment was placed in Latin square, the 7 variants being placed in 7 repetitions. The year 2022 was a year where the spring and the beginning of summer were very dry, totally unfavorable to pathogen attacks. The experiment was not irrigated. Among the pathogens monitored, very weak attacks by the fungus *Pyrenophora graminea*, which produces, in barley, the disease known as leaf stripe, were observed. This led to very uniform yields in the variants studied. Basically, no significant yield differences occurred in the climate conditions of 2022 between the untreated control variant and the variants that were treated with fungicides. The variant's yields were: V1 – 5,276 to/ha, V2 – 5,292 to/ha, V3 – 5,451 to/ha, V4 – 5,184 to/ha, V5 – 5,601 to/ha, V6 – 5,585 to/ha and V7 – 5,508 to/ha.

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