

THE INFLUENCE OF TREATMENTS WITH VARIOUS PHYTOSANITARY PRODUCTS (FUNGICIDES) ON THE ATTACK OF SOME PHYTOPATHOGENIC FUNGI ON BARLEY HARVEST, TEPEE VARIETY, IN 2024 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 and spotting of the leaves produced by fungi of *Pyrenophora* genus 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 5 treatment variants was created (4 variants with phytosanitary treatment, plus a control variant not treated), being used the following phytosanitary products: ORTIVA TOP (200 g/l azoxystrobin+ 125 g/l difenoconazole) and MYSTIC GOLD (tebuconazole 250 g/l). The treatment variants were the following: V1- ORTIVA TOP 0.5 L/HA – 1 treatment applied at straw's extension + 1 treatment applied at barley grain filling, V2 – ORTIVA TOP 0.5 L/HA – treatment applied at ear release phase, V3- MYSTIC GOLD 1.0 L/HA - treatment applied at straw's extension + 1 treatment applied at barley grain filling, V4 - MYSTIC GOLD 1.0 L/HA - treatment applied at ear release phase and V5 – Control variant not treated. The experiment was placed in Latin square, the 5 variants being placed in 5 repetitions. The year 2024 was a year with a relatively wet spring and early summer. The climatic conditions were favorable to the attacks of barley-specific pathogens. The experiment was not irrigated, being established after corn. Among the pathogens followed, attacks produced by fungi of *Pyrenophora* sp. genus were observed, fungi producing in barley diseases known as spotting and leaf stripes. This led to obtaining a relatively different yield for the variants studied. Between the untreated control variant and some of the variants that were treated with fungicides, there were significant yield differences in the climatic conditions of 2024. The variant's yields were: V1- 7.951 to/ha, V2– 8.047 to/ha, V3-8.058 to/ha, V4–8.211 to/ha and V5–7.221 to/ha.

Keywords: *Pyrenophora*, *Blumeria*, Latin square experimental design