# THE INFLUENCE OF TREATMENTS WITH VARIOUS PHYTOSANITARY PRODUCTS (FUNGICIDES) ON THE ATTACK OF SOME PHYTOPATHOGENIC FUNGI ON BARLEY HARVEST, DONAU VARIETY, IN 2023 PEDOCLIMATIC CONDITIONS OF THE EASTERN BARAGAN

**Eugen VELICHI**[1]

e-mail eugen_velichi@yahoo.com

**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 ORIUS 25 EW (250 g/l tebuconazole). The treatment variants were the following: V1- ORIUS 25 EW 0.5 L/HA, 1 treatment applied at booting – flowering phase; V2 – EVALIA 1/L/HA, 1 treatment applied at booting – flowering phase, V3 - RETENGO 0.5 L/HA, 1 treatment applied at booting – flowering phase, V4 - ORIUS 0.5 L/HA, 1 treatment applied at straw's extension + 1 treatment applied at kernel's filling, V5-EVALIA 1L/HA, 1 treatment applied at straw's extension + 1 treatment applied at kernel's filling, V6-RETENGO 0.5 L/HA, 1 treatment applied at straw's extension + 1 treatment applied at kernel's filling, V7 – Control variant not treated. The experiment was placed in Latin square, the 7 variants being placed in 7 repetitions. The year 2023 was a year with a relatively wet spring and early summer. The climatic conditions were favorable to the attacks of barley-specific pathogens, earlier than in 2022, year which was very dry. The experiment was not irrigated. The experiment was established after rapeseed. Among the pathogens followed, attacks produced by the *Pyrenophora graminea* fungus, which produces, in barley, the disease known as leaf stripe, were observed. 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 2023. The variant's yields were: V1- 7335 t/ha, V2–7165 t/ha, V3-7505 t/ha, V4–7305 t/ha, V5–7496 t/ha, V6 - 7622 t/ha and V7–7275 t/ha. The presence of the phytopathogenic fungus *Blumeria graminis* f.sp. *hordei*, which produces barley's mildew, was slightly higher than in 2022.

**Key words:** (*Pyrenophora, Blumeria,* Latin square)