

THE INFLUENCE OF TREATMENTS WITH VARIOUS PHYTOSANITARY PRODUCTS (FUNGICIDES) ON THE ATTACK OF SOME PHYTOPATHOGENIC FUNGI ON WHEAT HARVEST - PITAR ROMANIAN VARIETY - IN 2019 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 Romanian wheat variety, Pitar. Among these, we mention: *Puccinia recondita* f. sp. *tritici* (sin. *Puccinia triticina*) which produces wheat's brown rust and *Septoria* spp. which produces wheat's brown leaf spotting (septoriosis). Also, the influence of applying these fungicides on the harvest, as compared to the untreated control variant, was monitored. One experiment with 7 variants (6 variants with phytosanitary treatment, plus one control variant not treated) was taken into consideration for this study, for which the following phytosanitary products were used, as follows: FALCON PRO (prothioconazole 53 g/l + tebuconazole 148 g/l + spiroxamine 224 g/l), MYSTIC 250 EC (tebuconazole 250 g/l) and CAPALO (fenpropimorph 200g/l, epoxiconazole 62.5 g/l, metraphenon 75g/l). The treatment variants were the following: V1 - MYSTIC 250 EC 0.5 L/HA, 1 treatment applied at spike's releasing (17.05.2019); V2 - MYSTIC 250 EC 0.5 L/HA, 1 treatment applied at straw's extension (27.04.2019) + 1 treatment applied at kernel's filling (8.06.2019), V3 - FALCON PRO 0.6 L/HA, 1 treatment applied at spike's releasing (17.05.2019), V4 - FALCON PRO 0.6 L/HA, 1 treatment applied at straw's extension (27.04.2019) + 1 treatment applied at kernel's filling (8.06.2019), V5 - CAPALO 1.0 L/HA, 1 treatment applied at spike's releasing (17.05.2019), V6 - CAPALO 1.0 L/HA, 1 treatment applied at straw's extension (27.04.2019) + 1 treatment applied at kernel's filling (8.06.2019), V7 - Untreated control variant. The experiment was placed in Latin square, the 7 variants being placed in 7 repetitions. Among the pathogenic agents under monitoring, *Puccinia recondita* f.sp. *tritici* fungus producing the brown rust had produced the greatest attacks. The attack of the fungi from *Septoria* sp. variety producing leaf's brown rust (septoriosis) and from *Blumeria* (*Erysiphe*) variety, producing wheat's mildew, was rare. The first two leaves placed under the spike had been analyzed for the above. These observations had led to the conclusion that for all 6 treatment variants, the degree of attack (D.A. %) of *Puccinia recondita* f.sp. *tritici* fungus was more reduced than at the untreated control variant. The harvests of the treated variants were as follows: (V1 – 6989 kg/ha, V2 - 6688 kg/ha, V3 - 6536 kg/ha, V4 - 6828 kg/ha, V5 - 6875 kg/ha, V6 - 6582 kg/ha and V7 (control variant not treated) - 6301 kg/ha.

Key words: *Puccinia* spp., *Septoria* spp., latin square