

THE INFLUENCE OF TREATMENTS WITH VARIOUS PHYTOSANITARY PRODUCTS (FUNGICIDES) ON THE ATTACK OF SOME PHYTOPATHOGENIC FUNGI ON WHEAT – AIRBUS VARIETY, IN 2020 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 French wheat variety, Airbus. Among these, we mention: *Puccinia recondita* f. sp. *tritici* (sin. *Puccinia triticina*) (fig. 1) which produces wheat's brown rust and *Septoria* sp. which produces wheat's brown leaf spotting (septoriosis). Also, the influence of applying these fungicides on the production, 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: EVOLUS (prochloraz 320 g/l, tebuconazole 160 g/l, proquinazid 40g/l), AMISTAR (azoxystrobin 250 g/l), FALCON PRO (prothioconazole 53 g/l, spiroxamine 224 g/l, tebuconazole 148 g/l), TOPSIN 500 SC (thiophanate-methyl 500 g/l), ORIUS 25 EW (250 g/l tebuconazole), DITHANE M 45 (mancozeb 80%). The treatment variants were the following: EVOLUS 0,75 L/HA - 1 treatment applied at spike's releasing - 23.05.2020, V2 - AMISTAR 0.75 L/HA - 1 treatment applied at spike's releasing - 23.05.2020, V3 - FALCON PRO 0.6 L/HA - 1 treatment applied at spike's releasing - 23.05.2020, V4 - ORIUS 25 EW 0.5 L/HA + TOPSIN 500 SC 1.0 L/HA - 1 treatment applied at spike's releasing - 23.05.2020, V5 - ORIUS 25 EW 0.5 L/HA 1 + DITHANE M 45 2 KG/HA - 1 treatment applied at spike's releasing - 23.05.2020, V6 - TOPSIN 500 SC 1.0 L/HA + DITHANE M 45 2 KG/HA - 1 treatment applied at spike's releasing - 23.05.2020, V7 - Untreated control valiant. The experiment was placed in Latin square; the 7 variants being placed in 7 repetitions. The experiment was performed under irrigation conditions. The year 2020 was one of the driest years in the last 3 decades. 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 *Blumeria* (*Erysiphe*) variety, producing wheat's mildew, was rare. No attacks of fungi from *Septoria* sp. variety producing leaf's brown rust (septoriosis) were observed. 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.

Key words: *Puccinia*, *Septoria*, Latin square.