

# THE DYNAMICS OF OCCURENCE OF SOME SPECIFIC PATHOGENIC AGENTS ATTACK AT WATERMELONS (SOIL FUNGI), UNDER PEDO-CLIMATIC CONDITIONS OF NORTHERN BARAGAN (BRĂILA COUNTY)

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## Abstract

An experiment was set up with different cultivars of watermelons in 2013, 3 variants (3 known varieties). These varieties were: V1 – Crimson Sweet, V2 - Dochița, V3 – Sugar Baby. The scope of the experiment was to monitor the occurrence and evolution of the attack of some specific pathogenic agents, especially fungi, at watermelons. It was also monitored the correlation between the attack degree (G.A.%) of the mentioned pathogenic agents and the production, as well and the quality of the production. The experiment was set up in a Latin square, with strict compliance with the experimental technique requirements. During the vegetation period, symptoms produced by *Fusarium oxysporum* f. sp. *Niveum* fungus which produces fusarium wilt of watermelons (Velichi E. 2006) have appeared differentially, on each experimental variant. Other diseases, like the ones produced by the attack of *Colletotrichum lagenarium* fungus which produces the anthracnose of cucurbitaceae or by the attack of *Sphaerotheca fuliginea* fungus (Iacob Viorica, Hatman, M., Ulea, E., Puiu, I. 2000) which produces the mildew of cucurbitaceae, did not manifest to the crop of watermelons which were subject to the experiment. Production's harvest was done in instalments. Between the results of the production, achieved variant wise, there were obtained differences ensured statistically, as against Sugar Baby control sample. The most productive watermelon variety, in the climatic conditions of the year 2013, was proved to be Crimson Sweet. *Fusarium oxysporum* f.sp. *niveum* fungus affected relatively uniformly those three varieties studied within the experiment. The degree of attack (G.A.%) of *F. oxysporum* f.sp. *niveum* fungus did not manifest differences ensured statistically, between variants - sample F for G.A% = 16,97 (19,00). It appears the conclusion that no causes of phytopathogenous nature stay at the origin of the production differences between those three variants.

**Key words:** watermelons, *Fusarium oxysporum* f. sp. *niveum*, Latin square