

Response of Some Corn Hybrids to the Fusariosis (*Fusarium* spp.) Attack

Alexandra Loredana SUCIU¹, Viorel FLORIAN¹, Elena NAGY²

¹University of Agricultural Science and Veterinary Medicine, 3-5 Mănăştur Street, 400372 Cluj-Napoca, Romania (e-mail: drdsuciu_alexandra@yahoo.com)

²S.C.D.A. Turda

Abstract

One of the essential objectives in plant improvement and in the creation of new hybrids is the growing of their resistance at the diseases or pests attack. In the climatic conditions of Transylvania the most damaging disease of corn cultures and which is necessarily to take in consideration in the improvement process is the fusariosis, main produced of the two species of the *Fusarium* type (*F. graminearum* and *F. moniliform*), which may manifest alone or in association, influenced by the environment conditions. For testing the resistances of the corn hybrids at the attack of *Fusarium* sp were made experiences in the experimentation field from S.C.D.A. Turda. The experiences contained hybrids created and homologated at S.C.D.A. Turda and they were followed in natural and artificial infection conditions. The artificial infections were made with *Fusarium* spp. suspension.

Through those 2 years were followed many aspects which help us at the identification of resistant hybrids. The marked aspects were: stem breaking, plant decay, the stem necrosis, the frequency of attack on corn cob, production.

At the harvest were made notifications in the utterance of hybrids resistance. The marking was made on scale of one to nine (one meaning very sensitive and nine meaning very resistant). The necroses surface of the stem was approximated in percents. The data presented in this paper work refers to the hybrid behavior in artificial infection. Considering the notifications that have been made we can say that the primary climatic parameter which influenced the attack level was humidity. From tested hybrids, at all cases of attack, the T STAR hybrid proved to be resistant comparing to the rest of hybrids.

Key words: corn hybrids, artificial infection, *Fusarium* sp, resistance

sa2008_a0528