HEALTH STATUS OF SOME SUNFLOWER HYBRIDS DURING 2019-2021 IN CLUJ COUNTY

Mădălina Ioana ȘERBAN[1], Vasile FLORIAN[1]

e-mail: vasile.florian@usamvcluj.ro

Abstract

Climate change is occurring in Romania and interacts with agroecological factors to increase biotic stress in sunflowers. Furthermore, the uneven distribution of precipitation has increased the chances of infection with necrotrophic pathogens. Therefore, the main objective of this paper was to study the dynamics of pathogens in the sunflower culture influenced by both the use of fertilizers and the genetic characteristics of the hybrids, correlated with the economic potential offered by pedo-climatic condition found in the Transylvania Plains area. The main objective of this paper was to monitor the health of some sunflower hybrids in different climatic conditions given by the experimental years (2019, 2020, 2021), but also differentiated fertilization (DAP, unfertilized). Thus, under the conditions of the experimental years, the pathogens identified were: *Plasmopara halstedii, Sclerotinia sclerotiorum, Alternaria zinniae, Puccinia helianthi, Septoria helianthi, Botrytis cinerea, Plenodomus lindquistii, Diaporthe helianthi, Verticillium spp., Pseudomonas tagetis*. Of these, only the following pathogens presented quantifiable degrees of attack each year: *Diaporthe helianthi, Plenodomus lindquistii, and Alternaria zinniae.* During the experiment, six hybrids were tested each year. The choice of Klarika and Neoma hybrids to be presented was due to the observed genetic tolerance, which differed considerably from the other variants of the year.

Keywords: sunflower, disease, *Diaporthe helianthi, Plenodomus lindquistii, Alteranaria zinniae*