Researches regarding foliar and organic fertilizers influences on pathogenesis of ascochyta imperfecta peck fungus, under the weather conditions of Banat field

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Organic and foliar fertilizers proved to be a great way to supplement the plant's growth stages with micro and macronutrients, helping to improve production and feed quality. Because alfalfa treatment with pesticides against diseases poses serious problems to feed safety and environmental quality, a measure to reduce pathogens virulence would be the correct application and optimal dosage of necessary nutrients. The influence of foliar (Bionat, Atonik, Cropmax) and organic (manure) fertilizers on the pathogenesis of Ascochyta imperfect fungus was tracked at three types of Serbian alfalfa: Novosadanka H – 11, Rasinka and Tisa. Study results show that fertilized plants tolerated the pathogen, susceptibility ranging around 30% compared to the unfertilized witness where the intensity of attacks was of 25.2%. The lowest intensity was registered at the Bionat variant (I = 25%), equal to the virulence of the unfertilized witness (I = 25.2%), emphasizing the indirect role of the bio-stimulator. Novosadanka H – 11 recorded the highest virulence (I = 29.7%). The frequency of affected leaves was higher at fertilized types than at the witness type. These results prove that pathogens' severity is associated with plant nutrition. Interaction of climatic factors with attack intensity is recorded with a multiple correlation coefficient (R) that exceeds the value of 0.5 (R = 0.526), thus confirming the connection between the above mentioned variables.