

THE EVOLUTION OF SOME PATHOGENS AND BROOMRAPE PARASITE ATTACK AND VIRULENCE, IN SUNFLOWER CROP, IN DOBROGEA AREA, ROMANIA

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Abstract

Sunflower diseases represent one of the most serious constraints in sunflower crop in Romania. Dobrogea region has around 24% of the area cultivated with sunflower in Romania. The pathogens attack is frequently severe and yield losses can reach up to 50 – 70 %. In the last years, climate change has an influence on the development of the pathogens, also on the host/pathogens interaction. Some changes occur between pathogenic races, some pathogens increase their attack, according with their thermal preferences. Our studies have demonstrated that some of the most important pathogens in sunflower have changed their behavior in different climatic conditions. Some pathogens (*Macrophomina phaseolina*, *Puccinia helianthi*) which in the past did not attack too much this crop, in Romania, are present in some cultivated areas with sunflower, in Dobrogea, in the last three years. Also, the pathogen *Plasmopara halstedii* has developed more virulent races, during the last period. The parasite broomrape (*Orobanche cumana* Wallr.) has also developed new and more virulent races, comparing with those present four years ago, especially in Constanta area.

Key words: sunflower, pathogens attack, races evolution, climate change
