

## **Virulence and aggressiveness of sunflower broomrape ( *Orobanche cumana* Wallr. ) populations, in Europe.**

Maria Pacureanu Joita, Steluta Raranciuc, Elisabeta Sava, Elena Petcu, Narcisa Babeanu\*, Ovidiu Popa\* National Agricultural Research and Development Institute Fundulea, N. Titulescu st., no. 1, 915200, Fundulea, Calarasi , Romania. \* University of Agricultural Sciences, Marasti Av., no. 59, Bucharest, Romania  
E-mail: mariapacureanu2@yahoo.com, [pacurean@ricic.ro](mailto:pacurean@ricic.ro)

### **ABSTRACT**

The pathogenic composition of the broomrape populations has changed over the years, slowly at first, then rapidly in Eastern Europe, Turkey and Spain. In the last years, in Europe, new and aggressive populations of the parasite, have attacked sunflower crop, specially in Turkey, Spain, Romania, Russia, Ukraine and Bulgaria. In Romania there are three important areas infested with broomrape ( *Orobanche cumana* Wallr. ), different as infestation degree and presence of different virulent groups. A new highly virulent population of broomrape has attacked sunflower in Romania in 2006 year. Many commercial hybrids belonging to different companies lost their resistance to this parasite. Sunflower genotypes, existing in Fundulea germplasm collection, used as differentials for the broomrape races, were tested with the parasite seeds collected from Romania, Spain, Turkey, Bulgaria and Ukraine. The spectrum of the broomrape races in these areas are different. Many genotypes, for some of them being known the reaction to the races in Spain or Turkey, were tested in Romania in 2008 year. The results have indicated a new and different virulent population of the parasite. Key words: sunflower, broomrape, virulence, resistant ,sensitive.