

# **The Evaluation of Broomrape Resistance in Sunflower Hybrids**

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## **ABSTRACT**

Broomrape (*Orobanche cumana* L.) is the biggest problem both in Turkey and in some Eastern European countries and also in Spain. The research covering broomrape tests of sunflower hybrids in the trials based on National Sunflower Research Project was conducted in Trakya region, which has 75% of sunflower production in Turkey in 2006, 2007 and 2008 years. Based on this project, in natural infested conditions 306 in 2006, 443 in 2007 and 533 genetic materials (commercial and candidate hybrids, inbred lines, etc..) tested in 2008 and from these tested materials, 12 of them in 2006, 56 in 2007 and 140 in 2008 were observed as resistant in the research. In winter time, broomrape tests continued in growth chamber and in the pots as artificially infested conditions. Broomrape seeds were collected from naturally infested area of Trakya region , then used in to determine of the reactions of developed hybrids and lines against these races. At this part of study, 1752 in 2006, 816 in 2007 and 1389 in 2008 sunflower genotypes were tested. Based on these tests, 332 materials in 2006, 94 in 2007 and 404 materials were found as resistant to new races of broomrape in the study.

Key Words: Sunflower, Hybrid, Broomrape, Resistance.