

# **Sunflower breeding for resistance to the new broomrape race in the Krasnodar region of Russia**

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## **ABSTRACT**

Broomrape (*Orobanche cumana* Wallr.) is a parasitic plant, feeding on sunflower roots. During the last years some new, more aggressive races have been found in the different parts of the world (Spain, Turkey, Romania, etc.). A little bit later they appeared in Russia and we started a special breeding program. Previously one resistant line (VK 623) to the race F was found among the lines of the VNIIMK breeding. In a short time some new prospective sunflower inbred lines with resistance to both broomrape races – E and F were developed. Now they are on the way of being converted to the CMS-lines. However recessive character of this resistance create some difficulties in commercial sunflower hybrid breeding, so to obtain new donors of resistance in the future, the cultivated sunflower was crossed with *H. tuberosus* (used as a pollinator). Key words: breeding, broomrape, hybrid, resistance, sunflower.