

# THE BREEDING ON THE NEW SUNFLOWER VARIETIES AGAINST BROOMRAPE IN CHINA

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## Abstract

Sunflower broomrape (*Orobanche cumana* Wallr.) is a parasitic seed plant and it caused the dramatically yield loss annually in China now. The most effective way to control this disease is to apply resistant varieties, however, for the lacking of the resistant varieties, sunflower broomrape has become one of the most important constraints in sunflower production in China. To create the resistant varieties against race G, our group screened the resistant inbred lines in pot and obtained 3 sterile lines and 5 restore lines. In 2016, via pollination we got several confection sunflower hybrids, such as CRD101 and CRD102, which showed the high resistant level against Race G of *O. cumana*. These hybrid showed high resistant level again race G in field in 2017. Besides the high resistance level, the average seed size of new variety is around 2.3 x 0.7 cm, the seeds coat is black and easy to be removed. The average yield is 3750 kg/hectar.

**Keywords:** sunflower breeding, *Orobanche cumana*, race G

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