

**INVESTIGATION ON THE EFFECT OF IMPORTANT QUALITATIVE INDICES
RELATED TO HIGHER SEED YIELD
IN SUNFLOWER (*HELIANTHUS ANNUUS* L.)**

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Abstract

The investigation was carried out during 2013-2016 at Dobrudja Agricultural Institute – General Toshevo. The indices plant height, head diameter, number of seeds per plant, 1000 kernel weight and leaf area were of primary importance and had direct effect on the increase of the seed yield per unit area. The investigations included eight hybrid combinations and parental forms involved in the crosses. The inheritance of resistance to the parasite *Orobanche* (race G) in the hybrid combinations was investigated.

The indices plant height, head diameter, number of seeds per plant, seed weight per plant and 1000 kernel weight had direct effect on most of the hybrid combinations for higher seed yield. Lower was the effect of the leaf area on the seed yield. Moderate resistance (50-75%) to the parasite *Orobanche* (race G) was found in two hybrid combinations: 217A x 97R and 2008A x 99R. This moderate resistance to the pathogen was due to the fact, that the fertility restorer lines involved in the hybridizations 97R and 99R showed respective resistance 97R (100%), 99R (50-75%) to the same race during the years of the investigation.

Keywords: sunflower, inheritance, heritability rate, hybrid