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
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**A Research on Determination of Superior Hybrid Combinations in Sunflower
(Helianthus annuusL.)**

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Abstract: This research, having F1 hybrids from 11 female (cytoplasmic male sterile) lines and 3 male (restorer) testers, was conducted in order to determined parents and crosses showing spureior general and specific combining ability in sunflower. Parents used in the study were developed at the University of Uludag, Faculty of Agriculture, Field Crops Department. In the first year of this reseacrh, CMS lines and restorer testers were crossed in all the possible combinations. The hybrid population were evaluted in a replicated field trial at Bursa. Data were analysed by LinexTester method. According to the results, it was determined that the lines and testers numbered 1, 3, 7 and 12 in plant heigh; 10, 11 and 13 in head diameter; 10, 11 and 12 in 1000-seed weight; 1, 8, 11 and 12 in seed weight per head and 1, 9, 8 and 12 in seed yield had given the highest general combining ability. However, the F1 hybrids numbered 10x14, 11x12, 1x12 and 2x12 showed the highest specific combining ability in seed yield and in the other characters observed. Magnitudes of the general and specific combining ability variances revealed that the dominance effects of genes were higher than their additive effects in plant height, 1000-seed weight, seed weight per head and seed yield.

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