



Genetic Analysis of Indian Mustard for Yield by Calculating Heterosis and Combining Ability

Harjinder Singh, Ravindra Kumar*, Satveer Kaur, Ikbal Singh and Ramandeep Kaur

Plant Breeding Laboratory, Department of Agriculture, Mata Gujri (Autonomous) College, Sri Fatehgarh Sahib 140 407, Punjab, India

KEYWORDS Hybrids. Interaction. Lines. Testers. Traits

ABSTRACT This study identified the best parents and hybrids on the basis of general, specific combining ability and high heterotic performance for yield traits, involving crosses of five mustard lines (female parents) and three testers (male parents), in line x tester design. ANOVA result revealed that for combining ability showed variance among lines and testers due to interaction between them. For GCA effects, IC-317528 considered as the best general combiner for most maximum number of the traits. For SCA effects, IC-589669 × IC-571683 is best combination for most of the traits. On the basis of mean performance and estimates of heterosis, the cross IC-589669 × IC-571655 was found most promising for seed yield/plant, hence could be evaluated further for detail heterosis estimation or even in breeding programme, in search of a best cultivar/s.