

RESEARCH PAPER

ADVANCE RESEARCH JOURNAL OF
C R P
IMPROVEMENT
Volume 7 | Issue 1 | June, 2016 | 151-154
••••• e ISSN-2231-640X

Heterosis and combining ability analysis in chickpea (*Cicer arietinum* L.)

DOI:
10.15740/HAS/ARJCI/7.1/151-154
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ABSTRACT : The experiment was conducted at Agricultural Research Station, Badnapur. In this study, three lines were crossed with five male parents and fifteen hybrids were developed. These fifteen hybrids along with their parental lines and check viz., BDNG 797 were grown during *Rabi* season of 2014. The parental lines BDNGK 798 exhibited high GCA effect for plant height and 100 seed weight, VIJAY for number of primary and secondary branches per plant, DIGVIJAY for number of pods per plant and seed yield per plant. The cross BDNGK 798 x SAKI 9516 recorded high significant and desirable SCA effect for number of pods per plant and seed yield per plant and the cross BDNGK 9-3 x ICC 14871 for seed yield per plant. Out of 15 crosses, nine crosses recorded standard significant heterosis over BDNG 797. The range of standard heterosis was 12 to 31.65 per cent. The cross VIJAY x BCP 49 exhibited highest significant standard heterosis (31.65%) followed by BDNG 9-3 x DIGVIJAY (26.63%) for seed yield per plant.

KEY WORDS : Heterosis, Combining ability, Chickpea

How to cite this paper : Sarode, S.B., Nagargoje, G.P. and Patil, D.K. (2016). Heterosis and combining ability analysis in chickpea (*Cicer arietinum* L.). *Adv. Res. J. Crop Improv.*, 7 (1) : 151-154, DOI : 10.15740/HAS/ARJCI/7.1/151-154.

Paper History : Received : 23.02.2016; Revised : 28.04.2016; Accepted : 24.05.2016