



Diallel analysis for Combining Ability in China aster (*Callistephus chinensis* [L.] Nees)

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Abstract: Field study with diallel analysis (including reciprocals) in China aster indicated that the mean squares due to GCA, SCA and RCA was significantly higher for all the characters. The high magnitude of GCA mean square than SCA and RCA mean square were found in almost all the characters except leaf area per plant and seed yield per plant. This indicated variation in GCA of the parents and SCA and RCA of the crosses are significant combinations of additive and non-additive gene effects in the expression of the characters. Estimates of general combining ability effects showed that parents Violet Cushion and AAC-1 were good general combiners for most of the growth, flowering, yield and quality traits. The specific combining ability effects for yield and its components showed that the best cross was AAC-1 x Poornima, while for reciprocal combining ability effects Violet Cushion x AAC-1 was found superior for yield and quality parameters.

Key Words: Diallel analysis, General combining ability, Reciprocal combining ability, Specific combining ability
