Genetic Causes of Heterosis for Fruit Yield in Okra (*Abelmoschus esculentus* (L) Moench)

K Ramya and N Senthil Kumar
Department of Genetics and Plant Breeding, Faculty of Agriculture, Annamalai University, Annamalainagar 608 002, Cuddalore Dist, Tamilnadu

ABSTRACT

In the present investigation the genetic causes of heterosis in okra was elucidated by using (7 x 7) diallele analysis. It as found out that combining ability is important for the observed heterosis and not the gene distribution. The direct and reciprocal cross combinations of Pusa A4 x Punjab Padmini, Varsha Uphar x Punjab Padmini, Pusa A4 x EMS 8 and the cross Parbhani Kranti x Punjab Padmini and Pusa A4 x Parbhani Kranti which portrayed high mean and commercial heterosis were endowed with significant *sca* effects and had both or atleast one of the parents with significant *gca* effects.

Key words : *Gca* and *sca* effects, Gene Distribution, Genetic Diversity, Heterosis.