

# **Maternal Effects and Heterosis Breeding for Fruit Yield Traits in Okra (*L.*)**

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## **ABSTRACT**

A 7 x 7 full diallele cross was effected in okra. The reciprocal differences were quite obvious. The mean of the direct crosses differed significantly from that of their reciprocal crosses for almost all the traits in many cross combinations. Such differences were also deserved at reciprocal effects and heterotic level. Reciprocal difference may be due to the confounded effect of cytoplasm and maternal genotypes. Existence of reciprocal difference due to the presence of over dominance, the best scheme to develop hybrids would be the reciprocal recurrent selection. Standard heterosis upto the tune of 55.96 per cent was recorded by the cross Pusa A4 x Punjab Padmini followed by the cross Punjab Padmini x Varsha Uphar (51.38 per cent) for fruit yield per plant. The cross combinations Pusa A4 x Punjab Padmini, Punjab Padmini x Varsha Uphar and Parbhani Kranti x Punjab Padmini can be utilised for heterosis breeding in okra, which showed high mean ,significant sca effects and high economic heterosis for fruit yield and other traits of interest.

**Key Words:** Heterosis, Maternal effects, Okra, Sca.