

Heterosis and Inbreeding Depression Studies in Sesame

(*Sesamum indicum* L.)

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ABSTRACT

Ten F_1 s, F_2 s along with their parents of sesame were evaluated for nine characters *viz.*, days to 50% flowering, days to maturity, plant height, number of primary branches/plant, number of capsules per plant, number of seeds per capsule, 1000 seed weight, oil content and seed yield per plant to estimate heterosis and inbreeding depression during *rabi* 2012 - 13 at Agricultural Research Station, Yallamanchili, Andhra Pradesh. Negative and desirable heterosis for plant height and days to maturity was observed in the crosses YLM 89 x YLM 100 and YLM 90 x YLM 100. While seed yield per plant showed positive significant heterosis in the crosses YLM 89 x YLM 100 and YLM 90 x YLM 100 while the crosses, YLM 95 x YLM 100 and YLM 93 x YLM 100 showed the least inbreeding depression for seed yield per plant, oil content indicating their usefulness in isolating the transgressive segregants for these traits. The yield contributing traits of remaining crosses showed varied levels of inbreeding depression.

Key words: *Heterosis, inbreeding depression and sesame*