

**MANIFESTATION OF HETEROSIS AND HETEROBELTIOSIS FOR YIELD  
AND ITS COMPONENTS IN A DIALLEL CROSS OF UPLAND COTTON**

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**ABSTRACT**

A 6 x 6 complete diallel cross experiment was attempted to estimate the manifestation of heterosis and heterobeltiosis for yield and its components viz. number of bolls/plant, boll weight, seed cotton yield and number of seeds/boll. Although heterosis and heterobeltiosis was ascertained for all the traits studied, yet it was maximum for the yield of seed cotton. As most of the crosses surpassed even their better parents, therefore, it indicated the over dominance type of gene action conditioning their genetic determination. The performance of the cultivars Rode Okra and Dunn 56A was exemplary, hence a due consideration of these varieties for future breeding programme is suggested.

**INTRODUCTION**

The objective of this experiment was to obtain information pertaining to manifestation of heterosis and heterobeltiosis in six cultivars of cotton in all their possible combinations. Recently, Meyer [19] explored the practical exploitation of heterosis feasible, by developing suitable male sterile and fertility restoration mechanisms, when the insect pollinators are present for the transfer of pollen to the male sterile flowers. Meffet and Stith [8] reported that large number of honey bees could be effective pollinators in cages. In India, both inter and intra-specific commercial exploitation of heterosis is carried out by hand plination in the area where the manpower is cheaper [16]. Many workers [9,1,16,18,16] computed heterosis for yield and