B-01: Heterosis and correlation among plant and yield characters of okra *Abelmoschus esculentus* (L) Moench)

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A field experiment was carried out to study the heterotic effect for selected characteristics of agronomic importance and to estimate the correlation among some traits in okra.

Three inbred parents (HRB-10, MI-5 and MI-7) and F_1 and F_2 generations of the crosses HRB-10xMI-5, HRB-10xMI-7 and MI-5xMI-7 were used in this study which was carried out at the Eastern University, Vantharamoolai during the period March to June 1993. All entries tested were arranged in a Randomized Complete Block Design (RCBD) with 3 replicates and data on the characters of agronomic importance were collected.

Hybrid vigour was noticed in plant height at first flowering; first harvest and last harvest, number of pods per plant; pod weight; pod length and yield in the F_1 of HRB-10 x MI-5. The remarkable increment in yield observed in the F_1 generation of this cross was 73.5% over the better parent MI-5 and 106.8% over the mid parent value.

The performance of the F_1 generation was better than the parents with respect to the plant height at first flowering, first harvest and last harvest and declined in F_2 generation indicating an inbreeding depression. The same trend was noticed in the yield as well.

A highly significant phenotypic correlation and direct relationship were seen between yield and yield components such as pod length, pod weight.