COMPARISON OF DIFFERENT SELECTION METHODS IN OKRA (Abelmoschus esculentus (L.) Moench.)

by

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A study on the comparison of different selection methods in okra was carried out during rainy and summer seasons of 1988 to 1990, at the Vegetable Research Farm, Chaudhary Charan Singh Haryana Agricultural University, Hisar using two cross populations. Thirty selection lines each under single seed per fruit (SSF), pedigree method (PM) and bulk population (BP) along with parental lines and standard check, Pusa Sawani were evaluated with respect to per se performance; mean of all thirty, top five, and topmost lines; per cent superior lines over best parents and standard check; genetic parameters and correlations among ten metric traits.

Differences among lines, due to methods employed and their interactions were significant for almost all the characters studied. There was no consistency for the parameters assessed under the three selection methods. Also none of the selected lines was found consistently superior for all the characters under either methods. Among the selection methods, though influenced by the environmental factors, SSF and BP accounted large variations. In PM the variation appeared to be due to the genetic architecture of the characters and the gene recombinations. SSF and PM resulted larger percentage of higher yielding lines; heritability estimates and the genetic advance in characters.

The character correlations with variable magnitude and directions existed under three selection methods. Some correlation combinations showed changed direction as compared to those existing in the parental lines, which all under SSF, most under PM and few under BP method were in desirable directions suggesting the superiority of SSF and PM in okra improvement programme. However, the usefulness of SSF with more number of crosses and simultaneous selection for characters may further be explored and confirmed.