

Correlation and Path analyses in Sesame (*Sesamum indicum* L.)

J V Ramana, V Satyanarayana Rao, Lal Ahamed M, Y Asoka Rani and P Anil Kumar
Department of Genetics and Plant Breeding, Agricultural College, Bapatla- 522101, Andhra Pradesh

ABSTRACT

The study was undertaken with an objective to study the correlation and path analysis for seed yield and yield traits in sesame during *rabi*, 2010 at Agricultural Research Station, Yelamanchili, Andhra Pradesh. The correlation analysis revealed that the genotypic correlations were, in general, higher than the phenotypic correlations and thus suggested that the observed relationships among the characters were due to genetic factors. The trait, seed yield per plant had highly significant positive association with capsules per plant, seeds per capsule and 1000 seed weight indicating the importance of these traits in improving the seed yield per plant while oil content was negatively associated with seed yield per plant indicating higher the yield lesser will be the oil content. Path analysis revealed that primary branches per plant, capsules per plant, seeds per capsule and 1000-seed weight had true relationship by establishing significant positive association and positive direct effect on seed yield per plant. Considering the nature and magnitude of character association and their direct and indirect effects, it can be inferred that simultaneous improvement of seed yield per plant is possible through manifestation of primary branches per plant, capsules per plant, seeds per capsule and 1000-seed weight.

Key words : Correlation, Path analysis, Seed yield and Sesame.