

Genetic Association and Path Analyses for Yield and Yield Components in Greengram under Late Rice Fallows

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ABSTRACT

Correlation and path coefficient estimates for yield and yield components were analysed using five lines, four testers and their twenty cross combinations under late rice fallow situation. Genotypic and phenotypic correlation studies showed higher magnitude of genotypic correlations than the phenotypic correlation coefficients between the traits, indicating strong inherent association between different traits. Yield per plant was positively and significantly correlated with days to 50 % flowering, days to maturity, plant height, pods per plant, seeds per pod, 100 seed weight, seed protein and shoot dry weight. The path coefficient studies revealed that shoot dry weight had maximum direct positive effect on seed yield followed by pods per plant, seeds per pod, days to maturity and 100 seed weight. The indirect effect of the characters *viz.*, shoot dry weight, pods per plant, seeds per pod and 100 seed weight were positive. Hence, while applying selection pressure emphasis should be given to shoot dry weight, pods per plant, 100 seed weight and seeds per pod in order to improve the seed yield in greengram under late rice fallow system.

Key words : Genetic Associations, Greengram, Late Rice Fallows, Path Analysis