

Genetic Variation and Trait Relationships in Wild Crosses of Pigeonpea, (*Cajanus cajan*)

Ch Sreelakshmi and D Shivani

Agricultural Research Station, Madhira 507 203, Khammam District

ABSTRACT

In a study on forty wild crosses of redgram (*Cajanus cajan* L.) high magnitude of GCV and PCV for number of primary branches per plant, number of pods per plant, 100-seed weight and seed yield per plant were observed indicating large extent of genetic variability for these traits. High heritability was accompanied by high genetic advance for days to maturity, plant height, number of pods per plant and seed yield, whereas, moderate heritability was associated with high GCV and PCV for number of primary branches per plant. Days to maturity, plant height and number of pods per plant and seed yield expressed high genetic advance with high heritability. Days to 50% flowering was associated strongly and positively with days to maturity, plant height, number of secondary branches and number of pods per plant. Plant height, number of pods per plant and 100-seed weight showed positive significant association with seed yield per plant. Plant height manifested maximum direct effect towards seed yield followed by days to maturity and number of secondary branches per plant. Number of pods per plant and 100-seed weight also contributed major share to seed yield per plant indirectly through other traits. Plant height, number of pods per plant and 100- seed weight may be considered important traits for enhancing yield in pigeonpea.

Key words : Correlation, Path analysis, Pigeonpea, Variability, Wild crosses.