

# **Genetic Variability, Heritability and Genetic Advance in Pigeonpea (*Cajanus cajan* (L.) Mill sp.) Advanced Lines**

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## **ABSTRACT**

Forty nine pigeonpea genotypes were studied to know their performance, genetic variability {genotypic coefficient of variation (GCV) and phenotypic coefficient of variation (PCV)}, heritability (broad sense)  $\{h^2 (b)\}$  and genetic advance as percent of Mean (GA as % of Mean) for yield and its contributing characters. Significant variation among the genotypes for all the 13 characters studied was observed. Wide ranges were observed for all characters i.e., days to 50% flowering, days to maturity, plant height, number of primary branches per plant, number of secondary branches per plant, number of pods per plant, seed yield per plant, 100 seed weight, harvest index and protein content but for pod length, number of seeds per pod and shelling percentage. GCV for all the characters was lesser than PCV evidencing masking effects of the environment. High PCV coupled with high GCV was observed for the traits viz., number of primary branches per plant, number of secondary branches per plant and number of pods per plant indicating the presence of wider variability for these traits in the population studied. High heritability coupled with high genetic advance as per cent of mean was observed for plant height, number of primary branches per plant, number of secondary branches per plant, number of pods per plant and seed yield per plant which indicates the operation of additive gene action in the inheritance of these traits.

**Key words :** Coefficients of Variation, Genetic Advance, Heritability, Pigeonpea, Variability.