

# **Genetic Variability, Heritability and Genetic Advance in Pigeonpea (*Cajanaus cajan* (L.) Millsp.)**

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## **ABSTRACT**

Eighty three 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 11 characters studied was observed. Wide ranges were observed for all characters days to 50% flowering, days to maturity, plant height, number of branches per plant, number of pods per plant, pod length, seed yield per plant, 100 seed weight and harvest index and protein content but for number of seeds per pod. GCV for all the characters was lesser than PCV evidencing masking effects of the environment. High PCV coupled with high GCV was observed for number of branches per plant, number of pods per plant, seed yield per plant and harvest index, indicating the presence of wider variability for these traits in the population studied. High genetic variability coupled with high  $h^2$  (b) and high GA as % of mean was observed for days to 50% flowering, days to maturity, number of branches per plant, number of pods per plant, seed yield per plant and harvest index exhibiting the role of additive gene action governing the inheritance of these traits.

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