

# Variability studies for yield in biparental and selfed progenies of chickpea (*Cicer arietinum* L.)

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## ABSTRACT

In the present study, biparental progenies (BIP F<sub>3</sub>) and their corresponding selfed (F<sub>5</sub>) progenies generated from the cross JAKI 9218 X NBeG 776 were simultaneously evaluated for per se performance and extent of genetic variability using thirty genotypes for each population in chickpea. The *per se* performance of BIPF<sub>3</sub>s was higher for various traits as compared to F<sub>5</sub> progenies. The range for different characters for BIPF<sub>3</sub> and F<sub>5</sub> also revealed that BIPF<sub>3</sub> has wider limits compared to F<sub>5</sub> progenies for plant height, number of pods, seed yield, 100 seed weight, and protein content. Phenotypic and genotypic coefficients of variation were high in both BIPF<sub>3</sub> and F<sub>5</sub> selfed for all the characters except for days to flowering and days to maturity in BIP F<sub>3</sub> and protein content in F<sub>5</sub>. Except for days to flowering (BIPF<sub>3</sub> and F<sub>5</sub>) and days to maturity (BIP F<sub>3</sub>), all other traits showed high heritability with moderate to high genetic advance in BIPF<sub>3</sub> as well as in F<sub>5</sub>. However, high heritability associated with low GAM% was observed for protein content in F<sub>5</sub> of this cross.

**Keywords:** *Biparental progenies, Chickpea, GCV, PCV and Selfed progenies.*