

Identification of Elite Genotypes of Blackgram (*Vigna Mungo* (L.) Hepper)

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ABSTRACT

Field experiment was conducted to study variability and genetic diversity among 32 blackgram genotypes for selection of elite genotypes suited to Allahabad. Analysis of variance indicated the presence of substantial genetic variability among genotypes. Higher magnitude of phenotypic coefficient of variation (PCV) was recorded for harvest index followed by number of pods per plant and biological yield. High genotypic coefficient of variation (GCV) was recorded for harvest index, number of pods per plant and biological yield. High heritability coupled with high genetic advance as per cent of mean was recorded for number of pods per plant, biological yield, harvest index and number of clusters per plant. Thirty two genotypes were grouped into six clusters, indicating a wide range of variation among the genotypes studied. The cluster IV was the largest consisting of 11 genotypes, followed by cluster I and cluster III with nine and four genotypes respectively, while cluster II and V with three genotypes each. Inter cluster distance (D^2) was found maximum between cluster III and V (6045.625). Hybridization between the desirable genotypes from these divergent clusters *i.e.*, cluster III and V may produce transgressive segregants in blackgram.

Key words : Elite genotypes, Genetic advance, Genetic diversity, Genetic variability, Heritability.