

## **Selection of diverse mungbean genotypes for seed yield improvement**

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**ABSTRACT :** An experiment was conducted to assess genetic variability and diversity in mungbean germplasm. Higher genotypic and phenotypic coefficient of variation was observed for number of clusters/plant, number of pods/plant and seed yield/plant, indicating the presence of ample amount of variation for these characters. Number of clusters/plant and number of pods/plant exhibited high values of heritability (in broad sense) and genetic advance as per cent of mean, suggesting probability of greater amount of additive type of gene action for these characters. Thirty genotypes were grouped into six clusters and cluster II comprised of 19 genotypes, evolving as the largest cluster, followed by cluster III with four genotypes, cluster II, IV and IV with two genotypes each and cluster V comprised a single genotype. Inter-cluster distance ( $D^2$ ) was found maximum between clusters II and IV, II and V and clusters III and V. Mean performance of different clusters was variable, suggesting wide range of differences between clusters. The crosses between parents with maximum genetic divergence are generally the most responsive for genetic improvement in mungbean.

**Key Words:** Mungbean, variability, heritability, genetic advance, diversity, cluster distance.