

# Genetic Diversity in Chickpea (*Cicer arietinum* L.)

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## ABSTRACT

One hundred and twenty nine genotypes of chickpea were assessed for genetic diversity utilizing ten physiological and yield attributes through Mahalanobis  $D^2$  statistic. The genotypes were grouped into 11 clusters with  $D^2$  values ranging between 9.69 and 23.56. Cluster I was the largest containing 54 genotypes followed by clusters II (25), VII (18), VI (14), III (12) and the remaining six clusters were one genotype each. The highest inter cluster distance was observed between clusters IX and XI followed by clusters V and VII and clusters V and IX. The maximum per cent contribution towards divergence was made by harvest index (45%) followed by number of pods (37.88%) and 100 seed weight (20.24%). Based on *per se* performance, genetic diversity and cluster means, genotypes ICCV 1083, ICCV 5135, ICCV 15264, ICCV 12028, ICCV 7308, ICCV 12328 and ICCV 5879 may be chosen for crossing programme for chickpea improvement.

**Key words** : Chickpea, Cluster Distance, Cluster Means,  $D^2$  analysis, Genetic Divergence.