

# Genetic diversity in germplasm of pigeonpea

SHWETA AND ARVIND SRIVASTAVA

Department of Genetics and Plant Breeding, C.S. Azad University of Agricultural and Technology, KANPUR  
(U.P.) INDIA

The genetic divergence among fifty-five genotypes of pigeonpea (*Cajanus cajan*) were evaluated for nine different characters and was estimated by Mahalanobis  $D^2$  statistic. The genotypes were grouped into seven clusters. The clustering pattern of the genotypes showed high degree of genetic diversity. The highest intra cluster distance was noticed for the cluster IV ( $D^2 = 2.069$ ) and the lowest for the cluster VII ( $D^2 = 1.619$ ). The highest intra-cluster distance was observed between clusters VI and III ( $D^2 = 4.598$ ) where as the lowest inter-cluster  $D^2$  value was observed between cluster I and II ( $D^2 = 2.308$ ). The cluster mean estimated for nine characters revealed that cluster IV had highest mean values for days to 50 per cent flowering, days to maturity and plant height. For seed yield per plant, highest mean was recorded for cluster VII and lowest for cluster II with over all mean of 69.05. Therefore, the result of the present study suggest that while selecting parents, inter-cluster distance must be taken into consideration so as to initiate a crossing programme to produce new recombinants with desired characters in pigeonpea.

**Key words :** Divergence, Pigeonpea, Cluster

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