

Genetic divergence in castor (*Ricinus communis* L.)

J.R. PATEL, M.P. SAIYED, C.G. PATEL*, R.K. BHATT¹ AND V.K. BHATT¹

Department of Genetics and Plant Breeding, C.P.College of Agriculture, S. D. Agricultural University,
SARDARKRUSHINAGAR (GUJARAT) INDIA

ABSTRACT

In order to assess the genetic divergence among the 41 genotypes accessions in castor, Mahalanobis D² statistics was applied. The 41 genotypes were grouped in to 12 clusters where, cluster I was largest containing 27 genotypes followed by cluster IV with 3 genotypes, cluster VI with 2 genotypes and cluster II, III, V, VII, VIII, IX, X, XI and XII with each having single genotype. Based on inter cluster distance, the highest inter cluster distance was observed between cluster IX and cluster XII followed by cluster IV and cluster IX, cluster I and cluster IV and cluster VI and cluster XII. Plant height (20.00 %) was main contributors to the total divergence, which was followed, by 100-seed weight (19.76 %) and number of capsules on primary raceme (17.32 %). The genotypes included in the diverse clusters can be used as promising parents for hybridization programme for obtaining high heterotic response and thus better segregants in castor.

Key words : Castor, Clusters, Genetic diversity

* **Author for correspondence.** Present Address : Main Castor Mustard Research Station, S.D. Agricultural University, SARDARKRUSHINAGAR (GUJARAT) INDIA

¹Directorate of Research,S.D. Agricultural University, SARDARKRUSHINAGAR (GUJARAT) INDIA