

GENETIC VARIABILITY, DIVERGENCE AND CORRELATION STUDIES IN BRINJAL

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ABSTRACT

Brinjal (Solanum melongena L.) a member of the family solanaceae has the chromosome number $2n=24$. Brinjal originated in India and is one of the most popular and major vegetable crop grown in South Asia and other parts of the world. In India brinjal is grown in an area of 7.11 lakh hectares with the production of 135.57 lakh tonnes and the productivity is 19.1 tonnes per hectare (Anon., 2013).

Planning and execution of a breeding program for the improvement of quantitative attributes depends to the greater extent upon the magnitude of genetic variability and divergence existing in the germplasm. Selection of genotype is based upon the association of characteristics. Correlation coefficients become more evident when they are partitioned into their components in path analysis (Kalloo, 1994).

The existing variability can be used to further enhance the yield level of the brinjal cultivars by following appropriate breeding strategies. Diverse genotypes can be utilized for hybridization programme also. Emphasis must be given to the characters having high direct and positive effect on yield like number of fruits per plant and fruit weight.

KEYWORDS: *Brinjal, Variability, Divergence, Correlation, Path Analysis*

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