



Genetic variability and divergence studies for morpho-economic characters in brinjal (*Solanum melongena* L.)

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Abstract : Study on the genetic components was carried out to assess the variability, association, direct and indirect effects and divergence of eight morpho-economic characters in thirty four brinjal (*Solanum melongena* L.) genotypes. High PCV and GCV were recorded by the characters viz., number of branches per plant, fruit length, fruit breadth, number of fruits per plant, average fruit weight and fruit yield per plant. All the characters were accompanied by high heritability and high genetic advance except for the trait days to 50 per cent flowering. The characters were mostly controlled by additive gene action, hence, it could be inferred that simple selection will be effective for these characters. The characters such as number of branches per plant, fruit breadth, number of fruits per plant and average fruit weight exhibited positive and significant association with fruit yield per plant. Path analysis indicated that the number of fruits per plant and average fruit weight had high direct effects and were the major factors that determine fruit yield per plant. The selection of genotypes based on these analyzed parameters can be utilized for further improvement.

Key Words : Brinjal, Heritability, Genetic divergence, Correlation, Path analysis

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