GENETIC VARIABILITY FOR SOME QUANTITATIVE AND QUALITATIVE TRAITS IN BRINJAL (Solanum melongena L.)

REENA NAIR AND A.K. MEHTA

Department of Horticulture, College of Agriculture, Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur (M.P.) - 482 004, India E-mail: reena_nair2007@rediffmail.com

ABSTRACT: An investigation was carried out to study genetic variability in 20 genotypes of brinjal. Phenotypic coefficient of variation was greater than genotypic coefficient of variation for all the characters. Both phenotypic coefficient of variation as well as genotypic coefficient of variation was high for seed pulp ratio, weight of fruit and number of fruits per plant. High heritability accompanied by high genetic advance was observed for weight of fruit indicating negligible environment effect and this trait will be more amenable to improvement through mass selection progeny selection etc., aiming at exploiting the additive variance. High heritability and moderate genetic advance were observed for plant height, fruiting span and number of fruits per plant suggesting that selection based on phenotypic performance of these traits is possible. Good variation was also observed for the morphological characters investigated. Genotypes PB-64, D-77-19, PB-67 and JB-15 were found least susceptible to discolouration. It is an important character that should be considered in breeding programme for developing variety having good consumer preference.

Key words: Brinjal, Browning reaction, Coefficient of variation, Genetic advance, Heritability