

Assessment of genetic variability, heritability and genetic advance among tomato (*Lycopersicon esculentum* Mill.) germplasm

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ABSTRACT : The present investigation was carried out at Vegetable Research Farm, Department of Horticulture, SHIATS, Allahabad during 2012-13. The experiment was laid out in Randomized Block Design with three replications having thirty genotypes. Analysis of variance revealed significant differences among germplasm for all the traits studies. Fruit yield per plant showed the highest genotypic and phenotypic variance. Higher magnitude of GCV and PCV, respectively were recorded for leaf curl incidence per cent (35.45 and 35.46), followed by plant height (30.49 and 30.50), ascorbic acid (25.71 and 25.74) and TSS ⁰Brix (25.24 and 25.43). High values of GCV are an indication of high genetic variability among the genotypes and thus the scope for improvement of these characters through simple selection would be better. In present study, all the characters showed high heritability, the magnitude of heritability ranged from 92% to 100% indicating that these traits are controlled by additive gene action, which is very useful in selection.

Key Words: Tomato, genotypic and phenotypic coefficient of variance, heritability and genetic advance as percentage of mean.