GENETIC VARIABILITY, HERITABILITY AND GENETIC ADVANCE IN TOMATO


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Abstract: 68 genotypes of tomato were assessed for genetic variability, heritability and genetic advance studies at Vegetable Research Farm, Department of Horticulture, Institute of Agricultural Sciences, B. H. U., Varanasi during rabi season 2009-10. All the characters studied for all the genotypes showed highly significant variation. General coefficient of variation at phenotypic level was higher in magnitude than corresponding genotypic level though the differences were not much in all the cases. Maximum PCV (49.55) and GCV (47.30) were registered for shelf life while days to 50% flowering had the lowest PCV (8.66) and GCV (7.40). The range of heritability was observed between 73.10 to 99.60 %. Highest value of heritability 99.60 was observed for fruit yield per plant and fruit yield per hectare, while it was lowest for days to 50% flowering (73.10). Highest genetic gain was recorded for shelf life followed by fruit yield per plant, fruit yield per hectare, whereas days to 50% flowering exhibited moderate genetic gain.

Keywords: Tomato, Lycopersicon esculentum, Variability heritability, Genetic advance

REFERENCES