

ASSESSMENT OF GENETIC DIVERSITY IN GARLIC (*ALLIUM SATIVUM* L.) GERMPLASM

Charan Singh Yadav, Mukesh Kumar and Arvind Kumar

*Department of Horticulture
Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, UP, India*

Abstract: An investigation was carried out to identify the extent of genetic divergence that exist for the yield and yield contributing characters of fifteen genotypes of garlic using Mahalanobis D² analysis. All the 15 genotypes of garlic (*Allium sativum* L.) were grouped into three clusters on the basis of the morphological diversity. Maximum intra-cluster distance was observed in cluster III (5.654) whereas, maximum inter-cluster distance was observed between cluster II and I (6.294). The analysis of divergence indicated significant differences among parental lines for all the agro-morphological characters. On the basis of results obtained in the present investigation, it was concluded that the allelic diversity can be used for future breeding program. The traits under study are also major yield contributing traits and are largely associated with each other. Therefore, these traits should be taken into consideration either simultaneously or alone for selecting a high yielding garlic genotype.

Keywords: Garlic, investigation, plant, *Allium*

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