

STUDIES ON GENETIC DIVERGENCE IN OKRA (*ABELMOSCHUS ESCULENTUS* (L.) MOENCH.)

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Abstract: An experiment was conducted on genetic diversity in Okra (*Abelmoschus esculentus* (L.) Moench.) with 25 genotypes during the year 2006-07 at Department of Horticulture, Allahabad Agricultural Institute –Deemed University, Allahabad. On the basis of divergence, 25 genotypes were grouped into 6 cluster having 7 genotypes in the cluster I, 5 genotypes in cluster II, 6 genotypes in cluster III, 3 genotypes in cluster IV, 3 genotypes in cluster V and 1 genotype in cluster VI. However, minimum intra cluster distance was found between the genotypes falling in cluster II and maximum was observed between the genotypes falling in cluster VI, followed by V, IV and III. Maximum inter cluster distance and their genetic distance was recorded in between the cluster number V and VI followed by I and VI, II and IV, II and III, II and V, respectively. Highest cluster means for plant height, leaf per plant ,number of branches per plant ,days to first flowering ,fruit per plant ,fruit yield per hectare were recorded in the cluster number IV. However, maximum values of cluster means for fruit length and weight of green fruit were found in the cluster number V. Maximum values of cluster means for percentage plant affected by milibug were recorded in the cluster I, II, and VI, respectively. Similarly, a maximum value for percentage plant for ascorbic acid, fruit diameter was also recorded in cluster I, II & VI respectively.

Keywords: Genetic diversity, okra

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