

GENETIC DIVERSITY ANALYSIS IN ADVANCED BREEDING LINES (ABLS) OF RICE (*ORYZA SATIVA* L.) UNDER IRRIGATED LATE CONDITION

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Abstract: The present study was undertaken to estimate the nature and magnitude of genetic diversity among 53 diverse breeding lines of rice. The genotypes were grouped into 7 clusters based on Euclidean cluster analysis. The largest cluster, Cluster VI comprised of 17 genotypes followed by Cluster I comprised of 10 genotypes in it, Cluster IV and VI included 9 genotypes each. The maximum intra cluster distance was observed for Cluster VI and minimum for Cluster III. The maximum diversity was observed between the Cluster III and Cluster V while minimum diversity was observed between Cluster I and Cluster IV. There is maximum inter-cluster distance between Cluster I and V, hence the hybridization between the genotypes of these clusters will be rewarding and would generate maximum variability and transgressive segregants.

Keywords: Genetic diversity, Analysis of variance, Cluster analysis

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