Genetic Divergence Studies in Rice (*Oryza Sativa*) Genotypes Suitable for Early *Kharif* Season

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ABSTRACT

Genetic divergence was assessed among 60 rice genotypes collected from different eco geographical areas using Mahalanobis D^2 analysis. The experimental materials were evaluated during 2016 at Agricultural Research Station, Nellore. The 60 rice genotypes were grouped into eight clusters. Cluster I was found to be the largest comprising of 27 genotypes followed by cluster II which had 25 genotypes and cluster VI had 3 genotypes. The clusters III, IV, V, VII and VIII were solitary in nature. The pattern of distribution of genotypes from different eco geographical regions into various clusters was at random indicating that geographical diversity and genetic diversity were not related. The characters, 1000 grain weight, flag leaf width and days to maturity, contributed maximum towards genetic divergence among the genotypes. The highest inter-cluster distance (D^2 =839.69) was recorded between clusters III and VIII followed by cluster V and cluster VIII (838.74). Selection of genotypes from these clusters may serve as potential donors for future hybridization programmes to develop recombinants with high yield coupled with desirable traits suitable for early *kharif* season.

Key words: *Early kharif, Genetic divergence, Geographical areas, Inter-cluster distance, Intra-cluster distance.*