Genetic Divergence Studies for Yield and Quality Attributes in Rice

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ABSTRACT

Genetic divergence was assessed among twenty five genotypes of molakolukulu rice using D^2 statistic. Based on the genetic distance the twenty five genotypes were grouped into six clusters. Of the six clusters formed, cluster III had maximum number of genotypes (9) followed by cluster I with seven entries. Maximum intra cluster distance (924.46) was observed in cluster III and minimum in Cluster IV (2922). Gel consistency (64.33%) followed by amylose content (28.67%), kernel elongation ratio (3.67) and water uptake (1.33%) together contribute around 98% to total divergence. The highest inter cluster distance was observed between cluster IV and cluster VI (39317.76) followed by cluster I and cluster VI (20556.42) indicating wide genetic diversity among the genotypes of these clusters and their use in rice hybridization programme for improving grain yield.

Key words: *Rice, quality attributes, divergence*