

ASSESSMENT OF GENETIC VARIABILITY, HERITABILITY AND GENETIC ADVANCE IN AROMATIC BREEDING LINES BASED ON YIELD AND GRAIN QUALITY TRAITS IN RICE (*ORYZA SATIVA* L.)

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Abstract: Fifty one aromatic lines of rice were evaluated during *kharif* (wet season) of 2020 to study presence of genetic variability. The genotypes differed highly significantly except for number of total tillers and flag leaf width. High phenotypic and genotypic coefficient of variation recorded for grain yield per plants, followed by harvest index, number of filled spikelets per panicle, number of spikelets per panicle, 1000 seed weight, alkali spreading value and number of effective tillers per plant. All character showed high heritability except for flag leaf width and number of total tillers per plant. Higher estimates of heritability with genetic advance as percent of mean was observed for number of filled spikelets per panicle, number of spikelets per panicle, harvest index, 1000 seed weight, alkali spreading value, spikelet fertility %, kernel L/B ratio, length breadth ratio, kernel length, plant height, head rice recovery %, grain length, gel consistency, days to 50% flowering, days to maturity, amylose content, flag leaf length and grain yield per plant. These characters are governed by additive gene action and selection can be operated well in the existing genotypes.

Keyword: Genetic variability, Heritability, Genetic advance, Rice

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