

Genetic Variability and Trait Association Analysis in F_3 Population of YH3 x AKDRMS 21-54 Cross.

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ABSTRACT

The present investigation was undertaken to study the variability, heritability, genetic advance, character associations and path coefficients of yield component traits in F_3 population of YH3 x AKDRMS 21-54 intra-specific cross of rice for the identification of effective selection criteria to improve grain yield improvement. High phenotypic coefficient of variation (PCV) and genotypic coefficient of variation (GCV) coupled with high heritability and genetic advance as per cent of mean were noticed for productive tillers per plant, filled grains per panicle, total grains per panicle and grain yield per plant indicating the effectiveness of direct phenotypic selection for improvement of these traits. Among these, productive tillers per plant and filled grains per panicle recorded positive direct effect coupled with significant and positive correlation with grain yield per plant. Hence, those traits form an identified as effective selection criterion for grain yield improvement in early generation of rice crop.

Keywords: *Correlation Analysis, F_3 generation, Genetic Advance, Heritability, Path Analysis, Rice and Variability.*