

Evaluation of F_{5:6} RILS Derived from Cross MTU 3626 x BM 71 for Genetic Parameters and BPH Tolerance in Rice (*Oryza Sativa* L.)

G Suneel Kumar, B N V S R Ravi Kumar, B Vijaya Lakshmi and M Nanda Kishore
Department of Genetics and Plan Breeding, Agricultural College, Bapatla, A.P.

ABSTRACT

Evaluation of one hundred and forty two RILs in F_{5:6} generation for genetic parameters of five yield attributing traits *viz.*, days to 50% flowering, plant height (cm), ear bearing tillers per plant, panicle length (cm) and grain yield per plant (g) and screening for brown plant hopper resistance was done during *kharif*, 2018 at Regional Agricultural Research Station, Maruteru, Andhra Pradesh. For grain yield per plant (g) higher estimates of both GCV and PCV were observed indicating greater variability. High heritability coupled with high genetic advance as percent of mean was also observed for grain yield per plant (g) indicating presence of additive gene action, hence improvement for grain yield per plant (g) can be done through simple selection. Phenotypic evaluation for brown plant hopper (*Nilaparvatha lugens stal*) tolerance in laboratory screening using standard seed box technique showed that forty four RILs were resistant, sixty two RILs were moderately resistant, thirty RILs were moderately susceptible and six RILs were susceptible, whereas in field screening sixty seven RILs were resistant, thirty four RILs were moderately resistant, twenty RILs were moderately susceptible, twenty one RILs were susceptible. Among the RILs evaluated ten RILs showed moderate brown plant hopper resistance with score less than 5.0 in both the screening methods and high yield than the checks.

Key words: *BPH, Genetic parameters, Rice, RILs, Tolerance.*