



RESEARCH ARTICLE :

Evaluation of rice pre-breeding lines for gall midge resistance

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SUMMARY : Pre-breeding lines with known source of gall midge resistance through *Gm1* gene in the elite backgrounds were evaluated in a replicated trial under greenhouse conditions at IIRR, Rajendranagar, Hyderabad against biotype 1 and in field at Jagtial and Warangal against biotype 3 and 4, respectively. Screening of 15 day old seedlings of the test lines against gall midge biotype 1 was carried out by releasing gall midge adults. Field screening for biotype 3 and 4M was carried out under natural infestation in endemic areas. Scoring for damage was done when at least 50% of the susceptible check plants exhibited damage symptoms as silver shoots. Data on total number of plants and number of plants with silver shoots were taken. Per cent plant damage and silver shoots was calculated. Among 38 pre-breeding lines, chosen with phenotypic acceptability, 12 lines showed nil damage from four crosses against biotype 1 and 6 lines against biotype 3. Of these RNR17927-1 (Tellahamsa X JGL11690) and RNR19872, RNR19875, RNR19880, RNR19881 and RNR19883 (MTU1010/JGL3855) were found resistant against both biotype 1 and 3 but susceptible to biotype 4M.

KEY WORDS :

Gall midge, Pre-breeding lines, Resistance

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