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RESEARCH PAPER

Identification of high yielding and blast disease resistant F_6 RILs in finger millet

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Abstract : Finger millet [*Eleusine coracana* (L.) Gaertn.] is one of the most important staple food crops in India. Blast disease caused by the fungus *Pyricularia grisea* (Cooke) is the most devastating biotic production constraint which affects different aerial parts of the plant at all plant growth stages. Development of pure-line varieties with high grain yield potential coupled with blast disease resistance is the major breeding objective of breeding finger millet. 360 F_6 Recombinant Inbred Lines (RILs) derived from the cross PR 202 × GPU 48 were evaluated at two locations during 2015 rainy season (Bengaluru and Mandya) for grain yield and response to blast disease reaction. Analysis of variance in F_6 RILs at both Bengaluru and Mandya locations revealed highly significant mean squares attributable to 'RILs' and 'check varieties' for all traits studied. High GCV and PCV were observed for grain yield plant^{-1}, neck blast incidence and finger blast incidence at Bengaluru and Mandya locations. All the traits studied exhibited higher broad sense heritability for both locations. The best ten high yielding RILs were identified.

Key Words : Recombinant inbred lines, Grain yield, Blast, Variability

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