

Studies on cold tolerance at seedling stage in Rice (*Oryza Sativa*.L) cultivars and combining ability, heterosis studies in few hybrids

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Rice yields are low in Andhra Pradesh region during rabi season due to cold effect. In this region the low temperature vary from 8°C to 16°C starting from December to first fortnight of February. Seedling stage is the most sensitivity one at the whole rice growth stages to cold stress. To address this problem 52 known cold tolerant rice genotypes are collected. The experiment was laid out at DRR Farm, ICRISAT Campus. Mahalanobis D² statistics used for identifying the better parents. The selected line and local high yielding lines are crossed in next season to test the combining ability and heterosis. IR-64 and ujala depama showed good positive general combining ability for the character under study. For specific combining ability the crosses IR-64 X ujala depama, IR-64Xbhurma bhuqi, showed significance for the characters under study. For heterosis IR-64 X ujala depama, IR-64X malida showed significance for mid parent heterosis and better parent heterosis.

Biography

G. Shiva Prasad has completed M.sc (Agriculture) from Acharya N.G. Ranga Agricultural University, College of Agriculture, Rajendranagar, Hyderabad. Now I am doing Ph.D. Agriculture (Research Scholar) in Dept of Genetics and Plant Breeding from the same university.

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