

Research Article

Physiological characterization of rice in upland rainfed condition in relation of the grain yield

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Summary

A field study was conducted to assess the physiological characterization of rice in upland rainfed condition in relation to grain yield. The experiment was laid out in Randomized Block Design with 65 advanced rice breeding lines. The physiological parameters (relative water content, membrane stability index, apparent translocation rate), yield determinants (number of panicles plant⁻¹, panicle length, panicle weight, number of grains panicle⁻¹) were taken at respective growth phases. Among the breeding lines R-RF-25, Mahamaya and IR-70225 performed relatively better in rainfed condition as for as physiological and yield traits are concerned. The regression analysis showed significant and positive relationship of grain yield with panicle harvest index and relative water content under upland rainfed condition.

Key words : Grain yield, Physiological characterization, Rice, Upland rainfed condition

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