

Evaluation of $F_{2:3}$ Population for Seedling Stage Salinity Tolerance in Rice (*Oryza Sativa* L.)

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ABSTRACT

Salinity is an important abiotic stress affecting rice production worldwide. Development of salt tolerant varieties is the most feasible approach for improving rice productivity in salt affected soils. In rice, seedling stage salinity tolerance is crucial for better crop establishment. In the present study, 234 $F_{2:3}$ population derived from a cross between a high yielding salt susceptible rice cultivar Sri Druthi (MTU 1121) and salt tolerant variety Indra (MTU 1061) were evaluated for salt tolerance at the seedling stage in a hydroponics experiment at electrical conductivity (6 and 12 dSm^{-1}). Based on modified standard evaluation score for visual salt injury at seedling stage, one line was highly tolerant, forty were tolerant, one hundred fifteen were moderately tolerant, seventy-one were susceptible and the rest seven were highly susceptible.

Keywords: *Rice, Salinity tolerance, seedling stage and $F_{2:3}$ population.*