

Influence of Salinity and Nitrogen on Growth and Yield of Rice in Coastal Saline Soils of Machilipatnam

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ABSTRACT

A field experiment was conducted to study the effect of salinity and nitrogen on rice at Agricultural Research Station, Machilipatnam during wet season of 2003 and 2004. The results indicated that higher salinity (6.5 dsm⁻¹) reduced Leaf area index, number of productive tillers, number of grains/panicle and grain yield compared to lower salinity level (4 dsm⁻¹). 1000 grain weight was not affected by salinity. Application of nitrogen @ 150 kg ha⁻¹ increased number of productive tillers, number of grains/panicle and grain yield both under high and low saline conditions. Highest average grain yield of 4.18 t ha⁻¹ was recorded at 4 dsm⁻¹ with application of 150 kg ha⁻¹ which was significantly superior to all other treatments.

Key words : Influence of Nitrogen, Rice, Salinity.