

Performance of Semi-dry Rice as Affected by Graded Levels and Time of Application of Nitrogen

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ABSTRACT

An investigation was conducted on nitrogen management for Semi-dry Rice (*Oryza sativa* L.) at Agricultural College farm, Naira during *kharif* 2011 with four graded levels of nitrogen and five varied timings of nitrogen application. Application of 120 kg N ha⁻¹ (N₄) resulted in the highest stature of growth parameters viz., plant height, total number of tillers m⁻² and dry matter production and yield attributes viz., total number of panicles m⁻², total number of filled grains panicle⁻¹ and yield as well as the highest nitrogen uptake and was significantly superior to other graded levels of nitrogen. All the growth parameters as well as yield attributes, yield and nitrogen uptake of rice were the lowest with N₁ (60 kg N ha⁻¹). Application of nitrogen in four splits ¼ each at basal, conversion to wet, PI and flowering (T₄) recorded the highest stature of all these growth parameters, yield attributes and yield along with highest nitrogen uptake and it was at par with LCC based nitrogen application (T₃) and nitrogen application in four splits ¼ each at basal, AT, PI and flowering (T₂). From the study it can be concluded that under semi-dry situation, rice can be successfully grown with supply of 120 kg N ha⁻¹ applied in four splits ¼ each at basal, conversion to wet, PI and flowering (T₄) resulting in the highest productivity.

Key words : Growth parameters, N levels, Semi-dry rice, Time of N application, Yield nitrogen uptake