

Effect of Different Levels of Nitrogen and Phosphorus on Growth and Yield of *Kharif* Rice (*Oryza sativa* L.)

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ABSTRACT

A field experiment was conducted for two consecutive years (2008-2009 and 2009-2010) on sandy clay loam soil of agricultural college farm, Bapatla during *kharif* to study the effect of different levels of nitrogen and phosphorus on rice (cv BPT. 5204). The twelve treatments consisted of four nitrogen levels i.e. 80 kg N ha⁻¹, 120 kg N ha⁻¹, 240 kg N ha⁻¹, green manuring @5 t ha⁻¹ and three phosphorus levels i.e. 0, 30 and 60 kg P₂O₅ ha⁻¹. Application of 240 kg N ha⁻¹ in combination with 60 kg P₂O₅ ha⁻¹ significantly increased the plant height, tiller number, drymatter accumulation, productive tillers, number of filled grains, test weight, grain yield and straw yield of rice over other levels of nitrogen and phosphorus. However, it was on a par with that of application of 240 kg N in combination with 30 kg P₂O₅ ha⁻¹ during both the years of the study.

Key words : Growth, *Kharif* rice, Yield attributes and Yield