

Growth and Yield Parameters of Rice (*Oryza sativa* L.) Influenced by Nitrogen and Phosphorus Levels

M Bhanu Prakash, M Srinivasa Reddy and E Aruna

Department of Agronomy, Agricultural College, Mahanandi 518502, Kurnool (dt.) Andhra Pradesh

ABSTRACT

Field experiment was conducted at Agricultural college farm, Mahanandi during *kharif*, 2011 to study the response of lowland rice to nitrogen and phosphorus levels in alfisols. The results indicated that highest values of growth parameters *viz.*, plant height, leaf area index and dry matter production and no. of total tillers were recorded with application of highest level nitrogen *viz.*, 240 kg N ha⁻¹ but it was on a par with application of 200 kg N ha⁻¹ and significantly superior to 160 kg N ha⁻¹. Higher no. of effective tillers m⁻², grain and straw yield were recorded with application of 240 kg N ha⁻¹ and it was on a par with application of 200 kg N ha⁻¹ and significantly superior to 160 kg N ha⁻¹. Among phosphorus levels highest values of growth parameters *viz.*, plant height, leaf area index, total tillers m⁻² were recorded with application of 80 kg P₂O₅ ha⁻¹ and lowest were recorded with control. Highest no. of effective tillers m⁻², grain and straw yield was recorded with application of 80 kg P₂O₅ ha⁻¹ and it was on par with application of 60 kg P₂O₅ ha⁻¹.

Key words : Rice, Nitrogen and phosphorus levels, Growth parameters, Yield Parameters.