



RESEARCH ARTICLE :

Effect of different levels of potassium and green manure on grain yield and soil properties of rice (*Oryza sativa* L.)

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SUMMARY : A field experiment was carried out at Agricultural College Farm, Mahanandi in Kurnool district of Andhra Pradesh to study the effect of different levels of potassium and green manure on grain yield and soil properties of rice during *Kharif*, 2015. The results revealed that EC and pH at harvest of the crop were not significantly influenced by various treatments. The grain yield, organic carbon, available N, P₂O₅ and K₂O were significantly increased with increase in K fertilizer application and also due to green manure incorporation. Application of green manure in combination with K fertilizer recorded higher in above mentioned parameters than when applied alone. Among all the treatments, the highest grain yield, organic carbon, available N, P₂O₅ and K₂O status of soil were obtained with incorporation of green manure (*Dhaincha*) (GM)+120 kg K₂O ha⁻¹ which was on par with GM+80 kg K₂O ha⁻¹ and GM+40 kg K₂O ha⁻¹.

KEY WORDS:

Rice, Potassium, Green manure, Grain yield, Soil physico-chemical properties, Available N, P₂O₅, K₂O status

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