

Mapping of Nutrient Status of Rice Soils in Guntur District (Andhra Pradesh) Using GIS Techniques

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Spatial distribution of nitrogen (N), phosphorus (P), potassium (K) and organic carbon (OC) was studied by collecting geo-referenced surface (1-15 cm) and sub surface (15-30 cm) samples from 96 sites representing intensively rice growing soils using global positioning system (GPS) and mapped in GIS environment. These samples were analyzed for physical, physico-chemical and chemical properties of the soils. The content of available nitrogen varied from 120 to 450 kg ha⁻¹, available P from 13.8 to 62.6 kg ha⁻¹, available K from 100 to 583 kg ha⁻¹ and organic carbon varied from low to medium. The maps of various nutrient elements clearly indicated the specific locations, where deficiency of nutrients constrained crop production.

Key words : GPS and GIS, Mapping.