

# Assessment of nutrient status of soils under major cropping systems of Chittoor District, Andhra Pradesh

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## ABSTRACT

Assessment of soil properties and nutrient status is essential for addressing issues of soil health through which one can guide for maintaining sustainable crop productivity. In view of this, soil samples were collected from selected villages under different mandals of Chittoor district to assess macronutrients and micro nutrients status. A total of 225 soil samples (0-15 cm depth) were collected from groundnut-groundnut cropping system, groundnut-Pigeon pea cropping system, paddy-groundnut cropping system, fallow-paddy cropping system, paddy-paddy cropping system, sugarcane-sugarcane cropping system, perennial fodder system, tomato mono cropping system and mango orchards. The results revealed that highest available nitrogen, phosphorus, potassium and sulphur was found in the groundnut- Pigeon pea cropping system, paddy-paddy cropping system, perennial fodder system and groundnut-groundnut cropping system, respectively, whereas the lowest nitrogen, potassium and sulphur was recorded in fallow-paddy cropping system. The available phosphorus was found to be low in groundnut-groundnut cropping system. The highest available calcium, magnesium and DTPA extractable Zn, Cu, Fe and Mn was found in perennial fodder system whereas, lowest Ca and Mg were noticed in groundnut-groundnut cropping system, while, lower DTPA extractable micronutrients viz., Zn, Cu, Fe and Mn were observed under fallow paddy cropping system.

**Keywords:** *Cropping system, DTPA extractable nutrients and production, soil health*