

Relationship of Forms of Potassium with Its Uptake by Potato Crop in Alfisols of Andhra Pradesh

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ABSTRACT

A field experiment was conducted on a sandy loam soil during *rabi* season of 2009-10 with four levels of potassium (0, 60, 120 and 180 kg K₂O ha⁻¹) and four levels of nitrogen (0, 60, 120 and 180 kg N ha⁻¹). The soil samples collected at stolonisation, Tuberisation and at harvest stages of potato were analyzed for different forms of K. The simple correlation study indicated that uptake of potassium by potato haulm and roots at stolonisation did not bear relationship with all the potassium forms except water soluble K. However, exchangeable K and 1N HNO₃ K played a significant role in meeting K needs at tuberisation stage and at harvest. The non-exchangeable K content found to be significant at harvest stage. The potassium dynamic equilibrium following potassium fertilization shifted towards non-exchangeable K with the advancement of the crop growth.

Key words : Forms of K, K uptake, Potato