

Soil physical and Physico- Chemical Properties as Influenced by Integrated Nutrient Management Practices in Maize-Maize Cropping System

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ABSTRACT

A field experiment was conducted to evaluate the integrated use of organic and inorganic source of nutrients on soil physical and physico-chemical properties in maize-maize cropping system during *kharif* and *rabi* seasons of 2008 and 2009 at the irrigated upland farm of Tamil Nadu Agricultural University, Coimbatore. The experiment was laid out in randomized block design with three replications and ten treatments. The results revealed that application of 100 per cent RDF through poultry manure markedly improved the soil physical properties i.e., reduced the bulk density, increased the pore space, hydraulic conductivity, water aggregate stability and water holding capacity. Physico-chemical properties were improved *i.e.*, reduction in soil pH, EC and considerable built up in soil organic carbon content at the end of two year cropping sequence.

Key words: *Integrated nutrient management, Maize, Soil physical properties*