

# Effect of Integrated Use of Organic and Inorganic Sources of Nutrients and Biofertilizers on Soil Physical and Physico-Chemical Properties in Maize – Onion Cropping System

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## ABSTRACT

A field experiment was conducted in *kharif*, (Maize) and *rabi*, (Onion) during 2009-10 to study the effect of integrated use of organic and inorganic sources of nutrients and biofertilizers on soil physical and physico-chemical properties in maize-onion cropping system in alfisols of Hyderabad. The results revealed that application of 75% RDF along with 25% N or P substituted through vermicompost or poultry manure with addition of azotobacter or phosphorus solubilising bacteria improved the water holding capacity but did not effect significantly on bulk density, hydraulic conductivity, pH, EC and organic carbon content of the soil. where as in *rabi* onion grown in two different situations like fertilized and unfertilized to know the cumulative and residual effect of *kharif* maize treatments on subsequent *rabi* onion crop, the results revealed there were no remarkable changes in soil bulk density, pH and EC but slight improvement in water holding capacity and hydraulic conductivity were observed with cumulative effect of integrated nutrient management treatments to maize and fertilizer application to onion. The organic carbon content reduced sharp.

**Key words :** Biofertilizers, Maize, Onion, Physical and physico-chemical properties.