

Effect of Integrated Use of Organic and Inorganic Sources of Nutrients and Biofertilizers on Soil Enzyme Activities in Maize – Onion Cropping System

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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 enzyme activities 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 recorded higher activities of soil urease, dehydrogenase and acid and alkaline phosphatases. However in *rabi* onion grown in two different situations like fertilized and unfertilized, the results revealed that the fertilized onion recorded maximum activity of enzymes when compared to unfertilized one. Within fertilized and unfertilized onion INM treatments showed highest activity of enzymes compared to other treatments.

Key words : Dehydrogenase, Maize, Onion, Urease and Phosphotase enzyme activities