

Research Article

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Effect of soil amendments in relation to soil water retention capacity and soil fertility in maize in alfisol of NSP left canal command area

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Summary

On farm the field experiments on effect of soil amendments in relation to soil water retention capacity and soil fertility in maize were taken up in Alfisols of NSP left Canal Command Area during *Kharif* 2005 and *Kharif* 2006 at pilot area Ganapavaram of Nagarjuna sagar project left canal command under A.P. Water management project was funded by FAO. The trial was carried with the farmer's participatory mode to study the impact of application of tank silt and farm yard manure as soil amendments in relation to soil water retention capacity and soil fertility and on crop yield of maize. The six treatments consisted of 5t FYM/ha with RDF, 10t FYM/ha with RDF, 10t tank silt/ha with RDF, 20t tank silt/ha with RDF, 30t tank silt/ha with RDF and only RDF. Application of 10 t FYM + RDF and 10t of tank silt+ RDF recorded highest grain yield of 6000kg/h and 5500 kg/ha during *Kharif*, 2005 and application of 10 t FYM + RDF and 10t of tank silt + RDF recorded highest grain yield of 6100kg/h and 5400 kg/ha *Kharif*, 2006, respectively. Post harvest soil analysis revealed that the organic carbon content was high in 10 t FYM + RDF whereas the application of increased tank silt recorded increase in water holding capacity during the both the years.

Key words : Soil amendments, Soil fertility, Maize, Canal command

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