

EFFECT OF DIFFERENT LEVELS OF FYM, PRESS MUD AND ZINC SULPHATE APPLICATION ON SOIL PROPERTIES

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Abstract: An experiment was conducted during the years 2006-2007 and 2007-2008 at farmers field to find out the effect of farm yard manure (FYM), press mud and in combination of inorganic fertilizer zinc sulphate. The rice variety PRH 10 was grown with thirteen treatments *i.e.* T₁ = Control; T₂ = FYM 5 t ha⁻¹ + 0.0 kg ZnSO₄; T₃ = FYM 5 t ha⁻¹ + 2.5 kg ZnSO₄; T₄ = FYM 5 t ha⁻¹ + 5.0 kg ZnSO₄; T₅ = FYM 5 t ha⁻¹ + 7.5 kg ZnSO₄; T₆ = FYM 10 t ha⁻¹ + 0 kg ZnSO₄; T₇ = FYM 10 t ha⁻¹ + 2.5 kg ZnSO₄; T₈ = FYM 10 t ha⁻¹ + 5.0 kg ZnSO₄; T₉ = FYM 10 t ha⁻¹ + 7.5 kg ZnSO₄; T₁₀ = Press mud 5 t ha⁻¹ + 0.0 kg ZnSO₄; T₁₁ = Press mud 5 t ha⁻¹ + 2.5 kg ZnSO₄; T₁₂ = Press mud 5 t ha⁻¹ + 5.0 kg ZnSO₄; T₁₃ = Press mud 5 t ha⁻¹ + 7.5 kg ZnSO₄. After the crop harvest soil samples were analyzed for physico-chemical parameters. The results showed that application of FYM and press mud in combination enhanced the soil organic carbon, available N, available P, available K and DTPA extractable Zn in soil solution. The highest increment was observed in the application of FYM 10 t ha⁻¹ + 7.5 kg ZnSO₄ compared to rest of the treatments. In conclusions, use of FYM and press mud with inorganic fertilizers enhanced the plant nutrient level in soil solution for better crop yield.

Keywords: Farm Yard Manure (FYM), press mud, soil properties, zinc sulphate

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