PHYSICO-CHEMICAL PROPERTIES OF VERTISOL AT DIFFERENT STAGES OF TRANPLANTED RICE AS INFLUENCED BY LONG TERM APPLICATION OF FERTILIZERS AND MANURE UNDER CHHATTISGARH CONDITION

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Abstract: A field study was carried out during Kharif season of 2010-11 at the Research and Instructional Farm of Indira Gandhi Krishi Vishwavidyalaya (IKKV), Raipur. Experiment was conducted to examine the “Physico-chemical properties of vertisol at different stages of transplanted rice as influenced by long term application of fertilizers and manure under chhattisgarh condition”. The experiment was carried out in randomized block design with 4 replications having treatments: T1 (Control without fertilizer), T2 (100% NPK), T3 (100% N alone), T4 (100%NPK+FYM), and T5 (50%NPK+Green manure). A medium duration high yielding paddy variety “Mahamaya” was taken as crop. The soil pH and EC decreased in T3 (100% N alone) treatment. However, it remained constant in T2 (100%NPK), T4 (100%NPK+FYM), and T5 (50%NPK+GM). The organic carbon content under treatment T4 (100%NPK+FYM) was found to be significantly higher in all the growth stages when compared with control. The soil moisture was also found higher in under treatment T5 (50%NPK+GM). The texture of the soil under study was estimated to be sand (20.40%), silt (35.30%) and clay (45.0%), respectively.

Keyword: Long Term, Rice, Different Stage, Physic Chemical Properties

REFERENCES


