SOIL MICROBIAL BIOMASS CARBON (μgC g⁻¹ DRY SOIL) AT DIFFERENT GROWTH STAGES OF PADDY 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 (IKV), Raipur (C.G.). Experiment was conducted to examine the "soil microbial biomass carbon (μgC g⁻¹ dry soil) at different growth stages of paddy as influenced by long term application of fertilizers and manure under Chhattisgarh condition". Soil microbial biomass carbon at different growth stages of paddy were determined from surface (0-15 cm) soil samples. The soil microbial biomass carbon at different growth stages was determined in paddy crop and fertilizer application significantly influenced soil microbial biomass carbon where the highest soil microbial biomass carbon was recorded under T₄(100% NPK +FYM) followed by T₃ (50% NPK +GM), T₂(100% NPK) treatment.T₁(Control) recorded the lowest soil microbial biomass carbon. The grain yield of rice was observed to be significantly influenced due to different treatments. The highest was recorded with T₄ (100%NPK +FYM), and was found significantly superior over rest of the treatments. The lowest grain yield was noticed under control plot.

Keywords: microbial biomass, paddy, grain yield, FYM

REFERENCES


