

Direct and Residual Effect of Sewage sludge, Urban compost and FYM on Organic Carbon and Organic matter fractions in Tomato – Cabbage Cropping Sequence*

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ABSTRACT

Direct and residual effect of sewage sludge, urban compost and FYM @ 0, 20 & 40 t ha⁻¹ alone and in combination with inorganic fertilizers on yield, organic carbon, humic acid, fulvic acid content of soil in tomato-cabbage cropping sequence during *kharif*–*rabi* season of 2003-2004 under green house condition was studied. Yield, organic carbon, humic acid and fulvic acid content of soil were increased significantly with the increasing levels of fertilizers from zero to 100 percent RDF. Direct and residual effect of organic manures significantly increased the above said parameters compared to no manure application. Among the manures, the sewage sludge was superior in increasing the parameters mentioned earlier. Combined application of manures and fertilizers also increased the yield and organic matter fractions but significant effect confined to yield only. Among all the combinations, the highest yield, organic carbon and organic matter fractions of soil were obtained with the application of sewage sludge @40 t ha⁻¹ along with 100 per cent RDF, closely followed by sewage sludge @40 t ha⁻¹ along with 75 per cent RDF.

Key words : Cabbage, FYM, Organic Carbon, Sewage Sludge, Tomato, Urban Compost, Yield.