

Comparative Studies of Sewage Sludge, Urban Compost and FYM on Yield and Quality of Tomato (*Lycopersicon esculentum* Mill.) Fruit

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ABSTRACT

Effect of sewage sludge, urban compost and FYM @ 0, 20 and 40 t ha⁻¹ on yield and quality of fruit (ascorbic acid, total soluble solids, protein content and heavy metal content viz., Zn, Cu, Ni, Cr, Pb and Cd) in tomato during kharif season of 2003 under green house condition was studied. Results showed that the addition of sewage sludge and urban compost @ 40 t ha⁻¹ did not show any detrimental effect on the yield and quality parameters viz., TSS, ascorbic acid and protein content, although it increased the heavy metal content in tomato fruit. However, the concentrations of heavy metals were below the safe limits. Increasing levels of fertilizers from zero fertilizer application to 100 per cent recommended dose of fertilizers (RDF) as well as manure (0 to 40 t ha⁻¹) addition significantly increased the yield and quality parameters. Among the manures, the sewage sludge was superior in increasing the yield and quality parameters. Combined application of manures and fertilizers increased the yield and quality parameters. Among all the combinations, the highest yield and quality parameters were obtained with 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 : FYM, Sewage Sludge, Tomato, Urban Compost, Yield and Quality of Fruit.p