Effect of Different Organic Nutrient Sources on Soil Properties

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ABSTRACT

A field experiment was conducted in *kharif*, 2011 to evaluate the effect of organic and inorganic nutrient sources on soil nutrient status with okra as test crop on medium textured soil. The experiment was laid out in RBD with treatments including organic fertilisers namely Aishwarya and New Suryamin; and organic manures namely EM compost and Urban compost. The treatments consisted of T_1 (control), T_2 (Inorganic NPK 120-60-60), T_3 (New Suryamin @ 50 kg ha^{-1}), T_4 (New Suryamin @ 25 kg ha^{-1} + 50% RDF), T_5 (Aishwarya @ 120 kg ha^{-1}), T_6 (Aishwarya @ 60 kg ha^{-1} + 50% RDF), T_7 (EM compost @ 5 t ha^{-1}), T_8 (EM compost @ 2.5 t ha^{-1} + 50% RDF), T_9 (Urban Compost @ 5 t ha^{-1}) and T_{10} (Urban Compost @ 2.5 t ha^{-1} + 50% RDF). Nutrient status at 30 and 90 DAS was high in the treatments with organic and inorganic combinations, with values of highest N recorded in T_{10} (Urban compost + Inorganic NPK) and highest P and K in T_6 (Aishwarya + Inorganic NPK). Soil organic carbon was recorded highest by Urban compost (T_9) with 1.63 and 1.21% at 30 and 90 DAS, respectively and as a consequence microbial load was also high. The study infers that urban compost could be utilized as organic nutrient source in cultivation of vegetable crops, particularly as a component of integrated nutrient management.

Key words : Bacterial populations, Organic fertilisers, Soil nutrient status, Urban compost.