



Chemical and Physical Analysis of Organic Matter Transformations During Composting of Different Composts and Manures

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ABSTRACT

Composting is the biological decomposition and stabilization of organic matter. It is an excellent example of the practical use of biotechnology, natural resource management and environment conservation. The present study was conducted to evaluate the effect of different preparation methodology on the physical and chemical parameters of three different (NADEP, Vermicompost and FYM) organic composts and manures. The rise and fall in temperature in the composts and manures showed that temperature was low at the initial stage of composting process and sharply increased. The maximum rise in temperature was observed in case of NADEP compost, whereas in vermicompost, the maximum rise in temperature of 37.8^oC was observed. In case of all the composts, a gradual decrease in pH value with advancement of composting process was observed and pH remained alkaline throughout the composting process and at maturity stage it was almost neutral. During composting on an average, moisture remained between 60-70 % in case of all the composts and manures. Composts and manures were further analysed for the concentration of different nutrients (i.e. Nitrogen, Phosphorus, Potassium, Sulphur, Iron, Manganese, Copper and Zinc), heap porosity and recovery percentage.

Keywords: Compost, manures, NADEP, Vermicompost, FYM.
