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LOS MICROORGANISMOS EN LOS ABONOS ORGÁNICOS A PARTIR DE PODAS EN LA
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Abstract

Composting is an aerobic and exothermic biological process in which microorganisms biologically decompose and mineralize an organic substrate obtaining a final product stable, pathogene-free, seed-free which can be applied to soil in a beneficial way. Since 2009, the composting method Indore has been tested in Universidad del Norte, Barranquilla, Colombia. The method has been modified—only vegetable decays are used and ventilation is passive— for reducing odor and operative controls and making it attractive in scale manufacture of fertilizer. In these composting experiences from pruning, the input conditions of compost have been changed obtaining fertilizer type A according to Chilean control standard 2880, from 2004. This article refers to a research which corresponds to high and low levels in the carbon/nitrogen (C/N) rate and to inoculate (or not) native microorganisms (*Aspergillus Niger* and *Streptomyces* sp.), in search of accelerating the process. The responses of thermophilic and mesophilic microorganisms agree with compost materials, C/N rate, physicochemical variable evolution due to microorganisms and the quality of ventilation involved. Fertilizer quality shows microorganisms have the nutrients required for their performance and that the system develops sufficient biooxidative kinetics similar to the one obtained in other processes which add animal decays and forced ventilation.

Keywords

Microbial activity, Passive ventilation, Biotransformation, Vegetable decays, Fertilizer.