

Comparative Study of Takakura Method of Composting with Vermi Composting and Box Composting

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Abstract

Waste management has become an important issue in Nepal. Composting can be a reduction method for country like Nepal. Takakura method found to easier, faster and economical technique to solve the issue of organic waste in different countries is compared with Vermi and Box composting in context of Nepal. The pH of salt-based solution decreased, while pH of sugarbased solution decreased during five days of retention time. Conductivity of salt based solution was found to be decreasing till the third day. In the case of sugar based solution, conductivity increased from 1,649.78 μ s in the first day to 2,400 μ s in the fifth day of solution formation.

During the observation of temperature of seeding inoculates, temperature was found to increasing from 19.9C in the first day to 60.74C, at fourth day. Decline in temperature was observed in the fifth day of retention, reaching to 27C. During the composting process, Takakura composting method was found to having higher temperature than other composting method. During the chemical analysis, OM of composts produced from TC, TC (10), BC, VC, and VT were found to be 39.60%, 43.33%, 31.33%, 35.33%, and 35.07%, respectively. Similarly, C:N ratio was found to 11.39 (TC), 13.82 (TC (10)), 29.99 (BC), 11.27 (VC) and 10.93 (VT). Statistical test showed composts formed were statistically different in terms of NPK value.

Considering time required for composting method, physico-chemical and statistical analysis of composting method showed Takakura method of composting was faster and produced nutrient rich composts.

Biography:

I have completed my Master's degree in Environmental Science from Central Department of Environmental Science and currently working as Program Developer in Good Neighbors Nepal in waste management department. At the age of 27, I am now also involved with News FM in designing radio program regarding waste management and also look after Ramapur Secondary School and its environmental related programs. I am also actively involved in publishing bulletin which shares information about waste management

[15th World Convention on Waste Recycling and Reuse](#); -
September 16-17, 2020.

Abstract Citation:

Manoj Neupane Comparative Study of Takakura Method of Composting with Vermi Composting and Box Composting, Recycling Summit 2020, 15th World Convention on Waste Recycling and Reuse; September 16-17, 2020.