Use of Municipal Solid Waste for Organic Agriculture in Jaffna Peninsula

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Abstract

Suitable eco-friendly waste management system is very imperative to protect our environment from waste accumulation. Composition ratio of waste is very important parameter to recommend suitable remedy for the management system. Sampling was done randomly from the main collecting points to estimate the composition ratio. The available data on total waste collection in Jaffna Municipal Council was collected. Implementation of the stable composting system in the Jaffna Municipal Council is possible since there were no significant differences in the collected wastes among the years and within the months of the years. The composition ratio of the waste from the municipal council was 79 % of organic compounds, 11 % of paper, 2 % of plastic, 1 % of glass, 1 % of metal and 6 % of others (sand, small stones). Organic fraction was 83 % during 1999 and it was 80 % during 2002 and at present (in 2008) it was 79 % which indicates the reduction of organic fraction. Technical efficiency could be improved to generate more waste by improving facilities of transportation and trained technical man power. Social motivation and public participation is very important to manage the system effectively and efficiently. Also the enrichment of nitrogen in the compost by spraying distillery spent wash over the waste materials is imperative to increase the quality of the compost.

Keywords: composition of waste, organic fraction, waste management