# Analysis and Improvement of Organic Waste Composting Process in DLSUD's Ecology Center using Rapid Composting Method

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#### **ABSTRACT**

De La Salle University - Dasmariñas' Ecology Center, under the management of Environmental Resource Management Center, has a major problem concerning the generation and storage of biodegradable wastes. This kind of wastes is the by-products of the canteen concessionaires and it contributes to the rapid increase of organic wastes in the campus ranging from 75kg (minimum) - 120kg (maximum) per day.

One of the methods used in converting food wastes is the composting method instead of by direct dumping them into trash bins. Composting is the natural process of decomposition and recycling of organic materials into a humus rich soil amendment known as fertilizer. The purpose of this study is to determine the effectiveness of this technology in terms of length of time to produce good quality composts considering the physical and chemical characteristics of compost. Also, it tries to determine the compost production rate in terms of kg/day. Rapid Composting Method is a fast and hot composting technology process which employs a weekly turning of pile to complete the process in a couple of weeks. The constructed bin, monitored parameters and layered substrates, with the addition of compost activator, enhance the microbial decomposition of the organic waste process.

The said process improved the current composting process and the analyzed fertilizer of the total compost production passed the parameter and standards of Fertilizer and Pesticide Authority (FPA). Furthermore, an organized compost facility, including its mechanized equipment and enough personnel with proper PPE, could improve the comprehensive development of this small scale organic fertilizer process.

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