



**EVALUATION OF DUMPSITE SOIL AS COMPOST AND ASSESSMENT  
OF HEAVY METAL CONCENTRATION IN SELECTED PLANTS FROM  
MUNICIPAL SOLID WASTES DUMPSITE OF BRGY. LALAN,  
MUNICIPALITY OF SILANG, CAVITE**

A Master's Thesis Presented to  
The Faculty of College of Science and Computer Studies Graduate  
Studies  
De La Salle University-Dasmariñas  
City of Dasmariñas, Cavite

In Partial Fulfilment of the Requirements for the  
Degree of Master of Science in Biology

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May 2018



## ABSTRACT

This research paper analyzed the compost suitability and quality of the soil in a closed Municipal Solid Wastes dumpsite in Brgy. Lalaan, Silang, Cavite as well as the heavy metal concentration (Cd, Pb, Zn, and Cu) in the plants (*Ipomoea batatas*, *Ipomoea aquatic*, and *Capsicum frutescens*) growing in the area. The plants and the soil samples were collected from the three multi-depths stations and were subjected to physical (moisture and water holding capacity), chemical (pH, organic matter, electrical conductivity, total nitrogen, available P, exchangeable K) including heavy metal analysis using Atomic Absorption Spectrophotometer (AAS). The dumpsite soil can be graded Class A as the results are compliant with physical and chemical parameters for compost while the heavy metal concentrations in the plants are within the permissible limit set by WHO/FAO with each of the parts significantly below the toxicity level. The findings further recommend the use of dumpsite soil as compost and the consumption of *Ipomoea batatas*, *Ipomoea aquatica* and *Capsicum frutescens*. grown in the premises.

**Keywords:** *Cadmium, copper, lead, zinc, soil*