QUALITY OF ORGANIC FERTILIZER FROM BIOGAS-DIGESTER SPENT SWINE SLUDGE

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ACCEPTANCE SHEET

This undergraduate thesis entitled "**QUALITY OF ORGANIC FERTILIZER FROM BIOGAS-DIGESTER SPENT SWINE SLUDGE,**" prepared and submitted by **CYRILL SHAME N. DELA CRUZ**, in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE (SUSTAINABLE AGRICULTURE)**, is hereby accepted:

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BIOGRAPHICAL SKETCH

The name of the author is Cyrill Shame N. Dela Cruz was born in San Leonardo, Nueva Ecija on July 6, 1998. Her parents are George B. Dela Cruz and Marinelli B. Dela Cruz.

She graduated Elementary at Gapan North Central School on March 2010. She graduated High School at Juan R. Liwag Memorial High School on March 2014. She is now currently taking up Bachelor of Science in Environmental Science major in Sustainable Agriculture at Central Luzon State University located at Science City of Munoz, Nueva Ecija.

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ABSTRACT

DELA CRUZ, CYRILL SHAME N., Department of Environmental Science, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **February 2020, QUALITY OF ORGANIC FERTILIZER FROM BIOGAS-DIGESTER SPENT SWINE SLUDGE**

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Tons of organic waste such as swine manure are being generated and represents a major contributing factor to eutrophication and pollution of water bodies in the country. To reduce the risk of pollution and greenhouse gas emissions, swine manure can be used to produce biogas, a renewable source of energy using biogas-digester waste-management strategy that generates and capture methane gas. Results showed that T1 (sludge+CRH) obtained the highest NPK content of 3.25% followed by T4 (sludge+DL+RS+CRH) with 2.31% then T3 (sludge+RS+CRH) with 2.13% and T2 (sludge+DL+ CRH) with the lowest NPK content of 1.88%. Temperature, odor, pH and percent recovery were also determined and evaluated in each treatment. Therefore, In this study, the biogas-digester spent sludge from a swine farm when combined with different substrates resulted to production of soil conditioner.

Keywords: organic fertilizer; biogas production; swine sludge; agricultural wastes

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