

**PRODUCTION OF PELLETIZED BIOFEEDS USING CASSAVA (*Manihot
esculenta Crantz*) LEAVES FOR NILE TILAPIA (*Oreochromis niloticus*)**

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**BACHELOR OF SCIENCE IN AGRICULTURAL
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ACCEPTANCE SHEET


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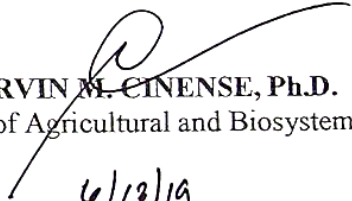

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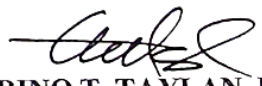

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BIOGRAPHICAL SKETCH

The author, Sheina Mae O. Mendoza was born on the 16th day of November 1997. She was raised in a simple and God fearing family. She is the youngest among the 2 children of Mr. Simeon S. Mendoza (†) and Mrs. Perlita O. Mendoza. She came from Mangino, Gapan City, Nueva Ecija.

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ABSTRACT

MENDOZA, SHEINA MAE O, Department of Agricultural and Biosystems Engineering, College of Engineering, Central Luzon State University, Science City of Muñoz, Nueva Ecija, **MAY 2019, PRODUCTION OF PELLETIZED BIOFEEDS USING CASSAVA (*Manihot esculenta Crantz*) LEAVES FOR NILE TILAPIA (*Oreochromis niloticus*).**

Adviser: CAROLYN GRACE G. SOMERA, M.Sc.

Cassava (*Manihot esculenta Crantz*) leaves have been studied as protein sources for cattle, goats and chickens. Feeds represents 40-50% of the total variable cost in fish production. The average price of feed ingredients used in aquafeeds rose by 20–92% in 2008. This study will benefit farmers since the ingredients to be used are readily available, low cost and contain nutrients that will sustain the needs of animals. The study aimed to evaluate the potential of cassava leaves as pelletized biofeeds for Nile tilapia.

The pelletized biofeeds was formulated using trial-and-error method to attain the desired crude protein of 20-25%. The pelletized biofeeds is composed of 50% cassava leaves, 20% rain tree pods, 20% rice bran, 5% guava leaves and 5% melon shell. A 2 mm diameter die was fabricated to provide the desired feed size for juvenile Nile tilapia. The formulated pelletized biofeeds were characterized in terms of moisture content and bulk density. The pelletized biofeeds and commercial feeds were compared in terms of physical properties and proximate analysis. The produced pelletized biofeeds were evaluated in the Nile tilapia in terms of weight.

Results revealed that pelletized biofeeds has a crude protein content of 20.38%. The actual moisture content of the pelletized biofeeds is lower than the commercial feeds

which is 14.07%. Commercial feeds has the highest bulk density which is 0.65 g/cc. The growth rate of the tilapia fed of formulated biofeeds was lower than the growth rate of the tilapia fed of commercial feeds. Based on the comparative cost analysis pelletized biofeeds cost Php 14 per kilograms lower than the commercial feeds.

Keywords: biofeeds; juvenile nile tilapia; commercial feeds

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