WATER QUALITY OF RED TILAPIA (*Oreochromis* spp.) CULTURE USING FERMENTED TARO CORM (FTC) IN OUTDOOR CONCRETE TANKS

By

DANIEL R. CARPO

An Undergraduate Thesis to the Faculty of the College of Fisheries in Partial Fulfillment of the Requirements of the Degree of

BACHELOR OF SCIENCE IN FISHERIES

COLLEGE OF FISHERIES
CENTRAL LUZON STATE UNIVERSITY
Science City of Muñoz Nueva Ecija
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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LISTS OF APPENDIX TABLES

WATER QUALITY OF RED TILAPIA (*Oreochromis* spp.) CULTURE USING FERMENTED TARO CORM IN OUTDOOR CONCRETE TANKS[1/]

ABSTRACT

This study was conducted to evaluate the effect of fermented taro corm (FTC) on water quality of Red tilapia (*Oreochromis* spp.) reared in outdoor concrete tanks. The treatments evaluated were: Treatment 1 (Control), Treatment 2 (0.005% of total water volume, 230 grams of FTC), Treatment 3 (0.010% of the water volume, 460 grams of FTC), and Treatment 4 (0.015% of the total water volume, 690 grams of FTC).

The quality of the water and gain in weight of Red tilapia reared in outdoor tanks were monitored for one month

Water quality parameters monitored are within the desirable level except for dissolved oxygen (DO). Application of fermented taro corm detected significant differences ($P<0.05$) among treatments in terms of pH in which T2, T3, and T4 were significantly higher than the T1 ($P<0.05$). DO readings showed that T4 was significantly higher than the all treatments ($P<0.05$). Comparison of treatment means in terms of weekly alkalinity showed that T1 was significantly lower than the T2, T3, and T4 on the following week of the study ($P<0.05$). Comparison among treatments on the gain weight of red tilapia revealed that T2, T3, T4 were significantly lower to T1 while T4 was significantly to T2.

The study revealed the following conclusions: FTC decreases dissolved oxygen concentration in water; regulates the acidity of the water, increases alkalinity of the water, increasing amount of fermented taro corm applied in water causes slower growth to the species cultured in concrete tanks.

Based from the observation and results of the study, the residue of fermented taro corm should be filtered before the application to reduce turbidity in the water and further study focusing on the chemical composition of the taro corm should be conducted.

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