بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

STUDIES ON OREOCHROMIS NILOTICUS NUTRITION

BY

SHADY AHMED SALAH EL-DIN

B.Sc. Agric. Sci. (Agricultural Production), Fac. Agric., Cairo Univ., 1977

M.Sc. Agric. Sci. (Animal Production), Fac. Agric., El-Azhar Univ., 1995

Thesis

Submitted in Partial Fulfillment of
The Requirements for the Degree of

DOCTOR OF PHILOSOPHY

In

Agricultural Sciences
Animal Production
(Fish Nutrition)

To

Department of Animal Production
Faculty of Agriculture at Moshtohor
Zagazig University (Banha Branch)

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National Institute of Oceanography and Fisheries

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Date: / /2004

ACKNOWLEDGEMENT

I would like to express my gratitude and appreciation to ***Prof. Dr. M.M. Abdella*** Professor of Poultry Nutrition, Faculty of Agriculture at Moshtohor, Zagazig University, Banha Branch for his close supervision, constructive suggestions, and kind assistance throughout this study.

Thanks are also due to ***Dr. M.A. Sweilum*** Associate Professor of Culture and Rearing Fish, National Institute of Oceanography and Fisheries for his advise, direct supervision and providing guidance throughout the progress of this investigation.

I wish also to thank ***Prof. Dr. E. Awad*** Chairman of National Institute of Oceanography and Fisheries, ***Prof. Dr. Magda E. Zaki,*** Chairman of Aquatic Animal Breeding Department, ***Prof. Dr. Elham A. Wassef*** Head of Nutrition Lab. and all staff members of fish research Station at Al-Kanater Al-Khyria, for their help and encouragement.

My deepest thanks and gratitude to my Family for their sacrifices during this study.

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SHADY AHMED SALAH EL-DIN

ABSTRACT

The present study was carried out at El-Kanater EI-Kayria Fish Research Station, Kalubia Governorate, National Institute of Oceanography and Fisheries (NIOF). This study include two experiments, the first aimed to study the effect of dietary protein and energy levels on growth performance of Nile tilapia fish of small initial size (22.87g), whereas the objective of the second experiment was to investigate the effect of the same dietary protein and energy levels on growth performance of Nile tilapia fish with 39.82g initial weight (large size). The experimental diets contained three CP levels (20,25 and 30%) and three energy levels (2500, 3000 and 3500 Kcal ME /kg). Results of the first experiment showed that fish fed the diet with 30% CP recorded the highest final BW, WG and BL, followed by those fed 25% CP, and the lowest values were recorded by fish fed 20% CP. Whereas, the best final BW, WG and BL were shown by fish fed the diet contained 3000 Kcal ME/Kg, followed by those fed 2500 Kcal ME /Kg, and the lowest values were achieved by fish fed the diet contained 3500 Kcal ME/Kg. FCR of fish decreased with increasing dietary protein level, but increased with increasing dietary energy level. A reverse trend was observed with PER values. Results of the second experiment indicated that final BW and WG values increased with increasing PL from 20% to either 25 or 30%, a reverse trend was observed with BL of fish. Energy level had no significant effect on final BW and WG of fish. FCR of fish decreased with increasing PL and increased with increasing EL. A reverse trend was shown with PER values, indicating the same trend observed in the first experiment.