شبكة المعلومات الجامعية

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شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

بالرسالة صفحات لم ترد بالأصل

بعض الوثائق الأصلية تالفة

THE USE OF NON TRADITIONAL PROTEIN SOURCES IN AQUACULTURE

By

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B.Sc. Agric. Sci. (Animal Production), Ain Shams Univ., (1984)

M. Sc. Agric. Sci. (Animal Nutrition), Ain Shams Univ., (1995)

A thesis submitted in partial fulfillment

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Doctor of Philosophy

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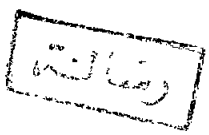

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ABSRRACT

Salah Mohamed Kamal Mahmoud, The Use of Non Traditional Protein Sources In Aquaculture, Unpublished Doctor of Philosophy Disseration, Ain Shams University, Faculty of Agric, Department of Animal Production, 2001.

This study was conducted to investigate the effect of replacing fish meal protein by either dried earthworm meal (DEM) protein or poultry by-products meal (PBP) protein, and substitute soybean meal protein with leucaena leaf meal (LLM) protein on the growth performance and feed utilization of tilapia (*Oreochromis niloticus*) fingerlings.

Thirteen experimental diets were formulated and biologically evaluated through 8 weeks of experimental period. Four experimental diets were formulated to contain dried earthworm meal (DEM) to substitute 25,50,75 and 100% of the diet fish meal protein (20%), Also four experimental diets were formulated to contain poultry by-products meal (PBP) to substitute 25, 50, 75 and 100% of the diet fish meal protein (20%). Another four experimental diets were formulated to contain leucaena leaf meal (LLM) to substitute 25, 50, 75 and 100% of the diet soybean meal protein (30%). The thirteenth experimental diet represents the control.

All formulated diets were isocaloric (4800 kcal/kg DM) and isonitrogenous (33% CP) and were supplied with 1.5% vitamin – minerals premix and were formulated to cover the nutrient requirements of tilapia according to NRC (1993). Corn oil was used as a source of essential fatty acids and to adjust the energy content. The fish was fed the experimental diets at 5% of their total body weights 3 times a day for 8 weeks. The results showed that tilapia fingerlings received diets containing either 100% (DEM) or up to 75% (PBP) replacement of fish meal and those having 25% (LLM) replacement of soybean meal offered the best results in growth parameters, feed efficiency, chemical composition of whole body of fish and economic efficiency.

Key Words: Earthworm meal, Poultry by-products meal, Leucaena leaf meal, substitution, Tilapia, Feeding experiment.

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