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Golden apple snail, cassave and maize as alternative feeds for the
giant freshwaters prawn, *Macrobrachium rosonbergii* / Syed
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PERPUSTAKAAN SULTANAH NUR ZAHIRAH UMT

GOLDEN APPLE SNAIL, CASSAVA AND MAIZE AS ALTERNATIVE
FEEDS FOR THE GIANT FRESHWATER PRAWN,
Macrobrachium rosenbergii

By

Syed Yusuf Bin Wan Drahman

Research Report submitted in partial fulfillment of
the requirements for the degree of
Bachelor of Agrotechnology Science (Aquaculture)

Department of Fisheries Science and Aquaculture
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITY MALAYSIA TERENGGANU
2009



**FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN
UNIVERSITI MALAYSIA TERENGGANU**

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PROJEK ILMIAH I DAN II**

Adalah ini diakui dan disahkan bahawa laporan ilmiah bertajuk:

...Influence of the Golden Apple Snail, Cassava and Maize as Alternative Feeds for the...
...Giant Freshwater Prawn (*Macrobrachium rosenbergii*).....

oleh..... Syed Yusuf bin Wan Drahman....., No.Matrik ...UK 14368.... telah
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DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

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ACKNOWLEDGEMENT

I would like to express my appreciation to all those who gave me such motivations and helps to complete this thesis. I want to thank the Department of Fishery Science and Aquaculture for giving me this opportunity to commence this thesis, to do the necessary attempts and efforts for research and to use all the department facilities. Further appreciations also to the Department Coordinator, Mdm. Norasma binti Ariffin and Research Supervisor, Dr. Hamid Khoda Bakhsh who have confirmed this thesis and gave full encouragement to strive with my thesis.

Once again, I want to thank to my supervisor, Dr. Hamid Khoda Bakhsh who has help and providing ideas for my research and writing this thesis.

My fellow friends and also to the department staffs that supported me during this research. Thanks for all of their support and motivations.

ABSTRACT

This study was done to show and to help the public especially to the inferior giant freshwater prawns' farmers about another low cost and easy to find alternative feed, a species known as golden apple snail. Maize and cassava also have been known as alternative feeds among prawn farmers, particularly contain lower protein value than the meat of golden apple snail. Golden apple snail was popular among paddy farmers despite of their ability to destroy and halted the growth of paddy plant. This phenomenal has lead to destruction and low income to the paddy farmers. Four treatments consists of shrimps, each of treatments were fed by raw golden apple snail, maize, cassava and also prawn pellet as control. The result show the specific growth rates of replicates in golden apple snail treatment was 1% per day, much better than maize and cassava, respectively 0.81 and 0.83% per day. The growth of replicates fed with prawn pellet was the highest, due to its complete set of nutritions. Golden apple snail contain higher amount of protein than maize and cassava that vital for the growth of prawns. Each maize and cassava contains higher amount carbohydrates that important to provide energy for survival. These results suggest that raw golden apple snail meats may represent a commercial environmentally alternative feed, particularly in giant freshwater prawn culture.

ABSTRAK

Penyelidikan ini telah dijalankan untuk membuktikan dan membantu para penternak udang galah untuk mencari sumber makanan alternatif yang lebih murah dan senang diperolehi iaitu spesies yang dikenali sebagai siput gondang emas. Biji jagung dan ubi kayu juga merupakan salah satu makanan alternatif yang sering digunakan dalam ternakan udang galah, yang mengandungi kandungan protin yang lebih rendah berbanding dengan daging siput gondang emas. Siput gondang emas merupakan spesies yang sangat popular di kalangan pesawah padi kerana spesies ini mampu memusnah dan membantutkan pertumbuhan padi. Keadaan ini telah menyebabkan kerosakan yang sangat teruk pada sawah padi dan memberi pulangan yang rendah kepada pesawah. Empat rawatan yang mengandungi tiga ekor juvenil yang bertindak sebagai replika diberi makan dengan siput gondang emas, biji jagung, ubi kayu dan pelet udang sebagai kawalan. Keputusan menunjukkan kadar pertumbuhan spesifik pada replika yang diberi makan dengan siput gondang adalah 1% sehari, lebih baik berbanding dengan replika yang diberi makan biji jagung dan ubi kayu, masing-masing dengan nilai 0.81 dan 0.83% sehari. Pertumbuhan replika yang diberi makan pelet udang merupakan yang tertinggi. Siput gondang emas mengandungi kandungan protin yang tinggi berbanding biji jagung dan ubi kayu yang sangat penting untuk pertumbuhan saiz udang. Ubi kayu dan biji jagung pula mempunyai kandungan karbohidrat yang tinggi, penting untuk membekalkan tenaga untuk meneruskan kehidupan. Keputusan yang diperolehi mencadangkan bahawa daging siput gondang mentah bakal menjadi makanan alternatif komersial yang mesra alam, terutamanya dalam ternakan udang galah.