PRELIMINARY STUDY ON THE EFFECTS OF HYDROCORTISONE HORMONE ON THE LATE STAGES OF *Macrobrachium rosenbergii* LARVAL DEVELOPMENT

FACULTY OF AGRO TECHNOLOGY AND FOOD SCIENCE
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI
MALAYSIA

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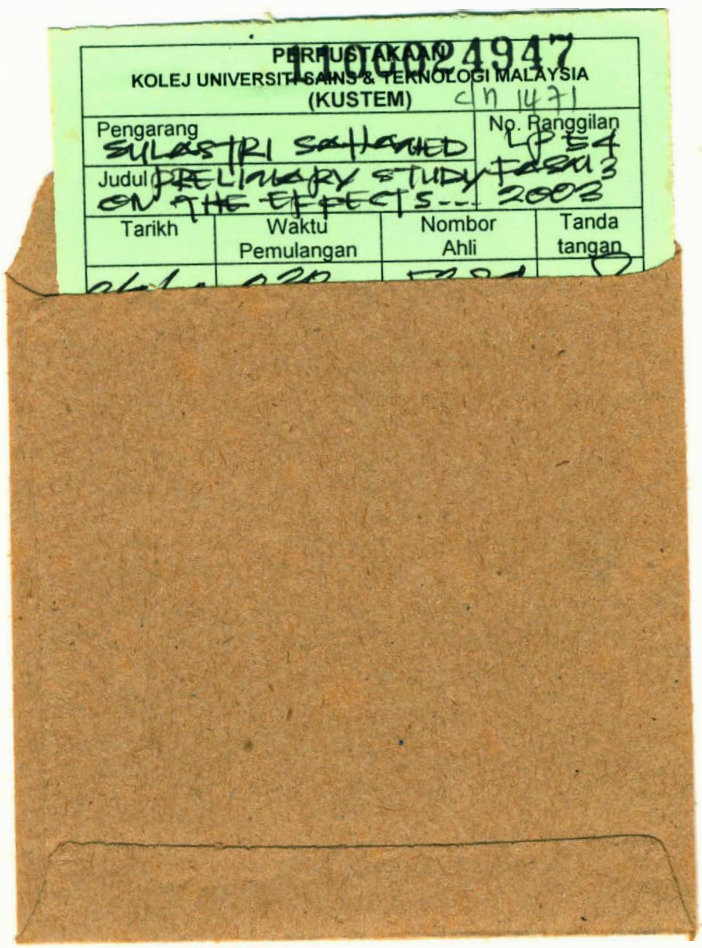

PRELIMINARY STUDY ON THE EFFECTS OF HYDROCORTISONE HORMONE ON THE LATE STAGES OF *MACROBRACHIUM ROSENBERGII* LARVAL DEVELOPMENT

BY

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This project report is submitted in partial fulfillment of the requirement for the Degree of Bachelor Science of Agrotechnology - Aquaculture

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بسم ألله ألرحمن ألرحيم

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ABSTRAK

Larva macrobrachium rosenbergii yang berusia 21 hari diuji dengan menggunakan hormon hydrocortisol pada kepekatan yang berbeza iaitu 0.001 ppm, 0.01 ppm, 0.1 ppm dan 1 ppm. perbezaan kepekatan hormon digunakan untuk melihat tindak balas hormon keatas tumbesaran dan metamofosis larva udang ke peringkat Post – larva (PL). Hormon tersebut digunakan sekali sahaja iaitu diawal kajian, sepanjang 21 hari kajian dijalankan. Larva dipelihara didalam akuarium plastik 2 liter dengan kadar penebaran 20 larva/liter dengan menggunakan air payau yang mempunyai salinity 12 ppt. Sebanyak 40 larva digunakan bagi setiap akuarium.diakhir kajian, menunjukkan hydrocortisone tidak memepengaruhi kadar hidup, tumbesaran dan penghasilan PL larva. Peringkat post – larva dikaji dengan menggunakan keseluruhan PL, percentage PL, and PL / lit untuk mendapatkan keputusan yang lebih tepat. Bagaimanapun akuarium yang mengandungi hormon menunjukkan penghasilan PL yang lebih awal dari akuarium yang tiada hormon. Ini menunjukkan kesan positive hormon keatas metamofosis Macrobrachium rosenbergii.

ABSTRACT

Twenty one day old larvae of *Macrobrachium rosenbergii* (stage 8) were treated with different concentration of hydrocortisone hormone by immersion (0.001ppm, 0.01ppm, 0.1ppm, 1ppm). To scan for its influence on larval growth and metamorphosis to post – larvae (PL). The hormone was administered only once (at the beginning the experiment), during the experiment, which was conducted for 21 days. The larvae were stocked at density of 20 larvae / liter, reared in small plastic aquarium 2 liter at brackish water (12ppt) (40 larvae/ tank). The findings suggest that the application of hydrocortisone as administered in this investigation does not enhance larval survival, growth and PL production in term of total PL, % PL and PL / lit. However earlier appearances of PL on hormone received treatments may be indicative of possible effects of this hormone on metamorphosis.