

THE EFFECTS OF INDEPENDENT FEED ON NUMBER  
OF LARVAE PRODUCTION IN A CLOSED  
FRESHWATER FRANKLINIUM (*Frankliniella californiensis*)  
PRODUCTION SYSTEM

BOYK KHOOY LIN

FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE  
UNIVERSITI MALAYSIA TERENGGANU

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**THE EFFECTS OF DIFFERENT FEED ON WATER QUALITY  
FLUCTUATION IN A CLOSED FRESHWATER PRAWN (*Macrobrachium  
rosenbergii*) PRODUCTION SYSTEM**

**BONG KHOON LIN**

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**FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE  
UNIVERSITY MALAYSIA TERENGGANU**

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## ABSTRACT

This experiment was carried out to study the effects of different feed on water quality fluctuation in a closed freshwater system. The experiment were carried out in Marine Hatchery of UMT by culturing juvenile of *Macrobrachium rosenbergii* in static water culture system. Stocking density of the prawn juveniles was  $0.5 \text{ pcsL}^{-1}$ . Four treatments of different diets were given to the prawns in three replicates. Treatment 1 was as control, consisted of commercial prawn pellet (CP 9004#), treatment 2 was pellet made of boiled chicken liver; treatment 3 was pellet made of raw chicken liver, and treatment 4 was ground Cargill starter feed. Water quality parameter such as temperature, pH, DO, unionized ammonia ( $\text{NH}_3$ ), nitrite, and ortho-phosphate were analyzed once a week. The experiment consisted of eight weeks cultural activity. At termination of the experiment, At termination of the experiments, there was no significant difference ( $P>0.05$ ) between treatments for the ammonia and nitrite concentration. Treatment 4 showed the highest ortho-phosphate concentration (3.26ppm). For the survival rate estimation, Treatment 1 (control) showed 94.17% of juvenile survival rate, Treatment 2, 3, and 4 showed 80%, 70.83% and 98.33% survival rate respectively. There was significant difference ( $P<0.05$ ) among the diet treatments.