

THE EFFECTS OF HORMONE THERAPY IN
ENRICHED / *Enriched* MURINE TO MURINE
Mus mus musculus
(MICE) (MURINE TO MURINE)

100 YEARS

INSTITUTE OF ANATOMY AND CELL BIOLOGY
UNIVERSITY OF GÖTTINGEN, GERMANY

2005

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The Feeding of hormone thyroxine - T4 enriched artemia naup
to larval giant freshwater prawn (macrobrachium rosenbergii),
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THE FEEDING OF HORMONE THYROXINE- T₄ ENRICHED *Artemia* NAUPLII
TO LARVAL *Macrobrachium rosenbergii*
(GIANT FRESHWATER PRAWN)

HOO KIEW MEOW

This project report is submitted in partial fulfilment of the requirement of the degree of
Bachelor of Applied Science
(Fisheries Science)

FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
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ABSTRACT

This study about the feeding of hormone thyroxine enriched *Artemia nauplii* to larvae *Macrobrachium rosenbergii* (giant freshwater prawn). Larvae *Macrobrachium rosenbergii* from stage 5 to 12 were fed daily with the enriched *Artemia nauplii* at various concentration of thyroid hormone (0.00 ppm as control, 0.1 ppm, 1.0 ppm and 2.0 ppm). Each treatment is comprised of 3 replicates for this study; each experimental unit used blue tank for culturing the larvae freshwater prawn with the water volume of 40 liters. The stocking density is 50 larvae per liter. Survival and growth rates measurement was done every 3 days. The light intensity factor may be eliminated by using randomized completely block design. This is to ensure the light intensity in marine hatchery is homogenous. Results showed that there were significant differences ($p < 0.05$) among the treatments. Treatment with 2.0 ppm T_4 gave the best result in terms of survival and PL production. However, the growth rates showed no significant differences ($P > 0.05$). It can be concluded that application of hormone thyroxine will increase the survival and PL production.

ABSTRAK

Kajian ini adalah mengenai pemakanan larva udang galah iaitu *Artemia nauplii* yang dirawat dengan hormon tiroid. Larva udang galah (peringkat 5 hingga 12) digunakan dalam eksperimen ini untuk mengkaji kesan pemakanan *Artemia nauplii* yang dirawat dengan pelbagai kepekatan hormon iaitu kawalan (tanpa hormon tiroid), 0.1 ppm, 1.0 ppm dan 2.0 ppm. Setiap rawatan mengandungi 3 replikat dan setiap eksperimen unit yang digunakan adalah tank berwarna biru muda dengan 40 liter kuantiti air. Kepadatan larva udang galah adalah 50 larva pada setiap liter air. Kadar kemandirian dan pertumbuhan dikira setiap 3 hari. Faktor keamatan cahaya yang tidak homogen dalam hatcheri air masin dapat dielakkan dengan menggunakan 'randomizes completely block design'. Pada akhir eksperimen ini, keputusan menunjukkan memang wujud perbezaan ($P < 0.05$) antara setiap rawatan. Rawatan dengan 2.0 ppm T_4 memberi kadar kemandirian dan hasil product PL yang tertinggi. Tetapi, kadar pertumbuhan antara rawatan adalah tiada perbezaan ($P > 0.05$). Dengan itu, kesimpulan boleh dibuat bahawa kesan penggunaan hormone tiroid terhadap larva udang galah akan meningkatkan kadar kemandirian dan hasil produk PL dengan menggunakan kepekatan hormon yang tinggi berbanding dengan kawalan.