

DETERMINATION OF THE EFFECTS OF AN ANDROGEN
ANTAGONIST ON THE DEVELOPMENTAL STAGES OF
Trichostrongylus axei LERNE

FOR QUANTIFICATION

SCHOOL OF AGROTECHNOLOGY AND FOOD SCIENCE
KOREA UNIVERSITY OF ANIMAL MEDICINE

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Preliminary study on the effects of an androgen (Mesterolne) c
late developmental stage of Macrobrachium rosenbergii larvae
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PRELIMINARY STUDY ON THE EFFECTS OF AN ANDROGEN
(MESTEROLONE) ON LATE DEVELOPMENTAL STAGES OF
Macrobrachium rosenbergii LARVAE

BY

NOR IZWANI MOHAMED

This project report is submitted in partial fulfillment of
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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ABSTRACT

Larvae (stage 8) of *Macrobrachium rosenbergii*, a freshwater prawn, were immersed in 0.001, 0.01, 0.1 and 1.0 ppm of mesterolone concentrations by single administration. The larvae were reared for 21 days in transparent aquarium (23 X 15 X 13.5 cm³) at the density 20 larvae per liter (40 larvae/tank), fed twice daily with *Artemia*. Percent survival rate, mean development stage (MDS), dry weight and post-larvae (PL) production were monitored every 3 days. At the termination, the lowest concentration of mesterolone (0.001 ppm) produced the highest result with 62.5 ± 15.61 of percent survival rate, 11.9 ± 0.00 for MDS, 73.9 ± 6.72 for percent post-larvae and 7.2 ± 2.47 for post-larvae per liter. Mesterolone at the concentration of 0.01 ppm showed the highest dry weight (0.5 ± 0.46 mg/larvae). The finding of the experiment did not show significant influence of mesterolone on *M. rosenbergii* larval development.

ABSTRAK

Larva udang galah, *Macrobrachium rosenbergii* (peringkat 8) direndam dengan hormon mesterolone yang hanya dicampurkan pada permulaan eksperimen dengan kepekatan 0.001, 0.01, 0.1 dan 1.0 ppm. Larva udang ini diternak selama 21 hari di dalam akuarium lutsinar berukuran (23 X 15 X 13.5 cm³) pada kepadatan 20 ekor larva per liter (40 larve/tangki) dan diberi makan *Artemia* dua kali sehari. Bacaan terhadap kadar peratus hidup, purata peringkat tumbesaran, berat kering dan penghasilan post larva diambil setiap tiga hari. Pada akhir eksperimen, larutan hormon pada kepekatan yang paling rendah telah menunjukkan keputusan tertinggi dengan 62.5 ± 15.61 kadar peratus hidup, 11.9 ± 0.00 purata peringkat pertumbuhan, 73.9 ± 6.72 peratus post larva dan 7.2 ± 2.47 bagi post larva per liter. Manakala mesterolone pada kepekatan 0.01 ppm pula menunjukkan keputusan yang tinggi bagi berat kering (0.5 ± 0.46 mg/larva). Daripada keputusan yang diperolehi dari eksperimen, mesterolone didapati tidak memberi pengaruh terhadap perkembangan larva *M. rosenbergii*.