


การเพิ่มน้ำหนักกึ่งก้ามกราม *Macrobrachium rosenbergii* ด้วยอาหารผสมถั่วแระแดง  
*Butea superba*



นางสาวนิภาพร โชคชัยเกษมสุข

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาวิทยาศาสตรมหาบัณฑิต

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ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

**INCREASED WEIGHT OF GIANT FRESHWATER PRAWN *Macrobrachium rosenbergii*  
BY FEED SUPPLEMENTED WITH *Butea superba***

**Miss Nipaporn Chokchaikasemsuk**

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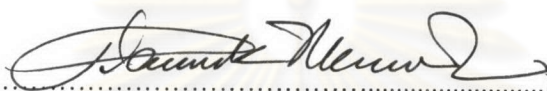
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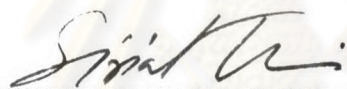
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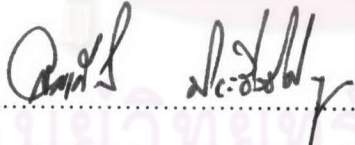
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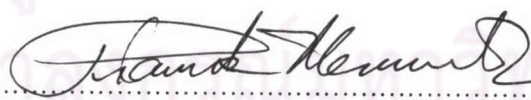
  
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.....Thesis Co-Advisor  
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.....Member  
(Professor Piemsak Menasveta, Ph.D.)

  
.....Member  
(Assistant Professor Thaithaworn Lirdwitayaprasit, Ph.D.)

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การศึกษาผลของกวาวเครือแดงที่มีต่อกุ้งก้ามกราม โดยการผสมกวาวเครือแดงในอาหาร ด้วยอัตราส่วน 0, 0.05, 0.5 และ 5 % สำหรับเลี้ยงกุ้งก้ามกรามวัยอ่อนที่คว่ำไม่เกิน 2 สัปดาห์ในกระชังเป็นระยะเวลา 20 สัปดาห์ พบว่า กุ้งก้ามกรามที่ได้รับอาหารผสมกวาวเครือแดงทุกความเข้มข้น มีน้ำหนักและความยาวมากขึ้นไม่แตกต่างกันในช่วง 4 สัปดาห์แรก หลังจากนั้นจนกระทั่งสิ้นสุดการทดลอง พบว่าน้ำหนัก ความยาว ความกว้างของปล้องแรกของลำตัว และความยาวก้ามของกุ้งก้ามกรามลดลง เมื่อได้รับกวาวเครือแดงระดับ 0.5 และ 5 % ในอาหาร ผลของกวาวเครือแดงที่มีต่ออัตราส่วนเพศของกุ้งก้ามกราม พบว่าการให้อาหารผสมกวาวเครือแดงในกุ้งก้ามกรามไม่มีผลต่อการเปลี่ยนแปลงของเพศผู้ ในขณะที่กวาวเครือแดงทุกความเข้มข้นของมีผลทำให้อัตราส่วนเพศผู้ต่อเพศเมียของกุ้งก้ามกรามลดลง กุ้งก้ามกรามเพศเมียที่ได้รับอาหารผสมกวาวเครือแดงความเข้มข้น 5% มีจำนวนกุ้งเพศเมียที่มีไข่ติดหน้าท้องน้อยลง อัตราส่วนการมีชีวิตรอดของกุ้งก้ามกรามเมื่อได้รับอาหารผสมกวาวเครือแดงมีค่าไม่แตกต่างกัน อาหารผสมกวาวเครือแดงไม่มีผลต่อความผิดปกติของเซลล์สืบพันธุ์ของกุ้งก้ามกรามทั้งเพศผู้และเพศเมีย

## ศูนย์วิทยทรัพยากร จุฬาลงกรณ์มหาวิทยาลัย

หลักสูตร เทคโนโลยีชีวภาพ  
สาขา เทคโนโลยีชีวภาพ  
ปีการศึกษา 2546

ลายมือชื่อนิติศ. นิภาพร โชคชัยเกษมสุข  
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NIPAPORN CHOKCHAIKASEMSUK: INCREASED WEIGHT OF GIANT FRESHWATER PRAWN *Macrobrachium rosenbergii* BY FEED SUPPLEMENTED WITH *Butea superba*. THESIS ADVISOR: ASSOC. PROF. WICHAI CHERDSHEWASART, D.Sc. THESIS COADVISOR: ASSOC. PROF. SOMKIAT PIYATIRATITIVORAKUL, Ph.D. 112 PP. ISBN 974-17-4829-9.

The administration of *Butea superba* in postlarvae *Macrobrachium rosenbergii* was conducted by *B. superba* mixing diet at the concentrations of 0, 0.05, 0.5 and 5% in 140 days of the experimental period revealed that all concentrations of *B. superba* mixed diet increased the weight and length of *M. rosenbergii* with no significant different in the first 4 weeks. On the contrary, the weight and length of *M. rosenbergii* reduced after that. At the end of the experiment, the weight, length, the size of the first abdominal segment and claw length of giant freshwater prawns were inhibited by the feed supplemented with 0.5 and 5% *B. superba*. *B. superba* mixed diet did not increase the male ratio of the *M. rosenbergii*. All concentration of *B. superba* mixed diets decreased the ratio of male to female prawn. The number of ovigerous female was significantly decreased in concentration of 5% *B. superba* mixed diet. There were no significant different of survival rate among the treatments. The histological studies showed that the reproductive cells of mature *M. rosenbergii* were not affected *B. superba* concentration in the diet.

ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย

Program of Biotechnology

Field of study Biotechnology

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Student's signature... Nipaporn Chokchajkasemsuk

Advisor's signature... Wichai Cherdshewasart

Co-advisor's signature... Somkiat Piyatiratitivorakul

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## ABBREVIATIONS

cAMP	adenosine 3', 5'-cyclic monophosphate
cm	centimetre
°C	degree celcius
g	gram
h <sup>2</sup>	heredity trait
hr	hour
IC <sub>50</sub>	median inhibitory concentration
m	metre
µg	microgram
mg	milligram
ml	millilitre
mm	millimetre
mt	metric ton
min	minute
ppt	part per thousand
P	probability
S.E.	standard error