



University of
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Medical School

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June 30, 2012

Dr. P. Price Dhanaraj
Controller of Examinations
Periyar University
Periyar Palkalai Nagar Salem-636 011

Dear Dr. Dhanaraj:

Sub: "PU/COE/RD4/PhD-Evaluation/2992/2012 dated May 10 2012. Reg."

Thank you for your invitation to be a member of the Board of Examiner to Adjudicate the PhD thesis entitled "Studies on the effect of commercial probioticculture ponds" submitted by Ms. C. Vasumathi, Zoology (PT), Periyar University. I request you to accept my expert report on the same as well as all the supporting documents. Again thank you for considering me as a member of Board of examiner. If you have any question or concern please feel free to contact me.

Thank you


Yours truly,

Barur R. Rajeshkumar, PhD
Senior Research Scientist



APPENDIX E: Proforma for Adjudication of the Ph.D. Thesis

- 1. Name of the Candidate: **C. Vasumathi**
- 2. Title of the Thesis: **"Studies on the effect of ...
... in culture ponds"**
- 3. Discipline and Subject: **Zoology**
- 4. Name and address of Examiner: **DR. BARUR R. RAJESHKUMAR Phd
Senior Res. Scientist
SB-734 Department of Surgery
UMMS Med Schol, Worcester, MA**

5. Recommendations of the Examiner (Please strike out whichever are not applicable) **01655**

- (a) Thesis is highly commended, the public Viva - Voce be conducted and Degree may be awarded. OR
- (b) Thesis is commended, the public Viva - Voce be conducted and Degree may be awarded. OR
- (c) Thesis is commended and Degree may be awarded subject to the candidate furnishing satisfactory clarification to my queries during the public Viva - Voce examination. OR
- (d) Thesis is commended and Degree may be awarded subject to the condition that the corrections/modifications suggested by me are carried out in the thesis and duly certified by the Supervisor-Convenor before the public Viva-Voce examination. OR
- (e) Thesis is not commended and the Degree may not be awarded and the candidate may be asked to revise and resubmit the thesis on the lines suggested by me. OR
- (f) Thesis may be rejected outright and the Degree not be awarded.

Note: Please enclose your detailed report on the thesis. Please also enclose a list of questions, if any, to be asked at the public Viva - Voce examination.

6. Any other remarks

Place: **Worcester, MA USA**
Date: **6-30-12**

B. R. Rajesh Kumar
(Signature of Examiner)
with designation.

Address:

Report on the dissertation entitled “Studies on the effect of commercial probiotic application in normal and stunted freshwater prawn *Machrobracium rosenbergii* in cultured ponds” submitted by Ms C. Vasumathi as a mark of completion for Ph.D. degree in the Periyar University.

General comments:

The dissertation and its contents are more than adequate for awarding the Doctor of Philosophy in Zoology.

Specific comments:

In this Doctoral Research study, Ms. Vasumathi made an attempt to correlate several features relating usefulness of the native ingredients, its cost-effectiveness and the feasibility. In its support an enormous amount of chemical and physical data provided for which the candidate certainly deserves much appreciation. Detailed introduction to fresh water farming of prawn *Machrobracium rosenbergii* provided in chapter 1. Extensive literature reviews on soil, water conditions to achieve the better growth and yield of the giant freshwater prawn were also provided. The chemical and physical parameters of the probiotic, control pond were studied to compare and to provide best pond condition, soil , water condition to produce a high yield and commercial value fresh water prawn. Histopathology studies were well planned and carried out to compare the histology of eyestalk, intestine, gonad and androgenic gland of normal adult male and stunted male. This study looked at various biochemical parameters on the normal and stunted male are interesting and certainly provides valuable information for the commercial farming of fresh water prawn. This examiner finds this research study to be an outstanding piece of innovative research. This research study is well thought-out and executed with a great extent. Also, the thesis is well written and articulately composed with adequate background information which is well said in the introduction chapter. The methodology applied is clear and organized in a sequence to address the goal of the planned research study. Results were presented well to establish the various farming condition to achieve a high yield fresh water prawn. In conclusion, Ms. Vasumathi’s research study provides

novel scientific data on various farming condition to produce better growth and high yield fresh water prawn and fish, which in turn provides a better commercial value for commercial fresh water farmers.

I HIGHLY RECOMMEND that this thesis to be accepted and Ms C. VASUMATHI be awarded the degree of Degree of Doctor of Philosophy in Zoology, Periyar University, Salem, Tamil Nadu, India. I congratulate both the doctoral scholar Ms. Vasumathi and Professor Dr. P. Dhanapakiam for their novel contribution to the science.

Few specific comments may, however, be directed at the candidate during viva interface:

1. Based on economic analysis, the net income from control pond is Rs. 58K and the probiotic pond is Rs. 261K. The net income from the probiotic pond 4 fold when compare to the control pond , which is very good for the fresh water prawn farmers. Have you made any attempt to educate the fresh water prawn farmers about this findings? Or have you contacted the agriculture department of State \ Central Government to notify your findings and the benefit of the probiotic pond? .
2. This study was carried out at Vishnuvakkam, near Chennai, would you expect the similar result in other parts of Tamil Nadu, with different soil, water and weather condition? What measures can be taken to mimic this conditions?
3. Regarding the growth aspect. No statistical analysis to compare the growth results are listed.!

BARUR. R. RAJESHKUMAR.



CLAIMS WITHOUT SIGNATURE WILL NOT BE ACCEPTED

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PERIYAR UNIVERSITY

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Name (in block letters) Dr. / Mr. / Mrs. / Miss. Barur R Rajesh Kumar, Ph.D

Examiner.....
Official Address. Sr. Res. scientist, S3-734 Dept of surgery

Address to which the cheques to be sent (in block letters).....
Claims without signature will not be entertained BARUR R RAJESHKUMAR, PHD

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Date. 6-30-12

Sr. Res. scientist, S3-734 Dept Surgery
UMass Med School, 55 Lake Ave N
Worcester, MA 01655 USA

[Signature]
Signature

(PTO)