

SELF-STUDY REPORT

**for Ph.D. Programme in
Aquatic Animal Health Management**



Submitted to

National Agricultural Education Accreditation Board



College of Fisheries

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

Lembucherra, Agartala, Tripura

Website: www.cofcau.nic.in E-mail: cofcau.agt-tr@gov.in

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6.4. Self-Study Report for Ph.D. Programme in Aquatic Animal Health

6.4.1. Brief history of the degree programme

The 'Department of Aquatic Health and Environment' under the College of Fisheries, Lembucherra started functioning since the inception of the college in 1998. The department was initially named as 'Fish Diseases & Environmental Monitoring Department' and later on renamed twice as 'Department of Fish Health and Environment' and 'Department of Aquatic Animal Health and Environment, respectively. It was only during 2014 that the present name was adopted. Besides Masters' programme, the department has also been offering **Ph.D. degree programme** in the discipline of '**Aquatic Animal Health**' since 2016. The department is also mandated with carrying out research in frontier areas of 'Aquatic Animal Health' and 'Environment' besides conducting training and other extension interventions for the end users.

Objective of the degree programme

- To produce globally competitive post graduates in Aquatic Animal Health.
- To promote the advancement of learning and persuasion of research in fisheries sciences.
- To make the graduates competent to impart extension services to the stakeholders.
- To meet the requirement of well-trained skilled manpower in the North-Eastern states.
- To facilitate the startups, aqua-entrepreneurship, and also to undertake such other activities as it may deem fit from time to time.

Accomplishments

Students of the Ph.D. programme in Aquatic Animal Health have already submitted their thesis and are waiting for the Viva-voce.

6.4.2. Faculty strength

S. No.	Sanctioned faculty	Faculty in place	Vacant position	Faculty recommended by the ICAR/UGC/VCI/other regulatory bodies
1	Professor 1	-	1	1
2	Associate Professor 1	1*	-	1
3	Assistant Professor 3	3	-	2
Total		4	1	4

* Promoted to Professor under CAS

6.4.3. Technical and supporting staff

The administrative and accounts supporting staff are centralized in the college and are operating under the direct control of the Dean as part of Dean's office. The dedicated technical staff and supporting staff allotted to the department are as below:

S. No.	Designation	Staff in place
Technical staff		
1	Livestock cum Farm Assistant	1
2	Field cum Laboratory Assistant	1
Supporting staff		
3	Multi-Tasking Staff	2

In addition to the above staff, Skilled and Unskilled labours are hired on contractual basis.

6.4.4. Classrooms and laboratories

S. No.	Name of the laboratory	Major Equipment available/Particulars
1.	UG Teaching Laboratory	<ul style="list-style-type: none">• Automatic weather station,• Analytical Balance,• Moisture meter,• Muffle furnace,
2.	PG Research Laboratory	<ul style="list-style-type: none">• Bomb calorimeter,• Multimode spectrophotometer,• ELISA reader,• CO2 incubator,• Research Microscopes with photography,• Auto Blood Analyzer,• Tissue Homogenizer.
3.	Water and Soil Chemistry Laboratory	<ul style="list-style-type: none">• Multi Parameter Water Analyzer,• High Seeped Centrifuge,• Refrigerator,• Nitrogen evaporator,• Solid phase extraction unit,• Flame Photometer,• pH Meter,• S-T-C Meter,

		<ul style="list-style-type: none"> • BOD incubator, • Deep freezer (-20°C)
4.	Microbiology Laboratory	<ul style="list-style-type: none"> • Laminar Flow Bench • Bacteriological incubator • Freeze • Cold Centrifuge • Vertical autoclave • CO2 incubator
5.	Molecular Biology Laboratory	<ul style="list-style-type: none"> • Refrigerated centrifuge • Gradient PCR • Real-Time PCR • Gel-Doc system • Electrophoresis Unit • Ice-flacking machine
6.	Pharmacology and Toxicology Laboratory	<ul style="list-style-type: none"> • Solid phase extraction unit • Nitrogen evaporator • Tissue Homogenizer • ELISA reader • ELISA washer • Bomb calorimeter • Automatic Bomb calorimeter
7.	Heamatology and Immunology Laboratory	<ul style="list-style-type: none"> • Auto Blood Analyzer • Refrigerated centrifuge • Ice-flaking machine • Multimode spectrophotometer
8.	Wet Laboratory	<ul style="list-style-type: none"> • Aquarium with stand and aeration facilities • FRP tanks • Syntex tanks
9.	Automatic Weather Station	<ul style="list-style-type: none"> • For monitoring and recording the weather parameter on regular basis.
10.	Mobile Fish Clinic	<ul style="list-style-type: none"> • For on field sampling and diagnosing/testing of fishes and water



6.4.5. Conduct of practical and hands-on training

The department has well established laboratories and wet laboratory to conduct practical classes and imparting hands-on training. The laboratories are well equipped with instruments and other facilities to support postgraduate research. Recently, three specific laboratories (Water and soil chemistry, Microbiology and Molecular Biology laboratories) have been developed in the dept though a NFDB funded Scheme ‘Development of Aquatic Animal Health Laboratory’. Additionally, the state-of-the-art central laboratory and laboratory facilities under the Centre of Excellence (COE) programme supports hands-on practical knowledge to the research scholars. Under the compulsory course work allotted, the students are trained on various need-based and curriculum oriented hands-on practical on immunology, microbiology, molecular biology, disease diagnosis, and water and soil parameter analyses. To assist the practical classes, the department has two laboratory assistants in place.

6.4.6. Supervision of Students in Ph.D. programme

Sl. No.	No. of eligible faculty for guidance	Intake capacity	Faculty/Student ratio
1.	3	3	1.0

The department has started the Ph.D. programme since 2016. The number of scholars enrolled for this programme is 3 including the ICAR candidate. The faculties in the department are well qualified and eligible (Annexed below) for guiding the Ph.D. students as per the ICAR norms.

S. No.	Name of Faculty	Designation	Qualification	Area of specialization
1.	Dr. Ratan Kumar Saha	Professor	M.Sc., Ph.D.	Aquatic Environment, Fish Parasitology


Ph.D.* (Aquatic Animal Health)	2	2	2	2	3	0%	50%	0%	50%	0%
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* Ph.D. (AAH) Thesis submitted; Viva-voce awaited

6.4.9. ICT application in curricula delivery

Computer-aided methods like PowerPoint Presentation are used as per need of the topic and for interactive teaching. Sometimes multimedia aids are also used to make things more plausible to the students, particularly short animation films depicting a scientific process are shown to the students.

I, **Prof. Ratan Kumar Saha** the Dean, **College of Fisheries, Lembucherra**, hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college, and degree awarding university.


 Dean
 कृषि विद्यापीठ
 College of Fisheries, (CAU)
 लेम्बुछेरा, त्रिपुरा 799210
 Lembucherra, Tripura

Signature of Dean of the College with Date & Seal