

Registration Form

Name: -----

Gender: ----- Age:-----

Qualification: -----

Affiliation: -----

Address:-----

Occupation: -----

Area of Interest: -----

E-mail: ----- Mobile: -----

Contact Address

Aqua Research Lab

Department of Zoology

University of Delhi, Delhi – 110 007

Phone: 011-27666496, 011-2766486

Mobile: 09910137995/09811090186

E-mail: aquaresearchlabdu@gmail.com

Convenor

Co-convenor

Prof. Rina Chakrabarti

Prof. JaiGopal Sharma

Admission

Interested persons from Biological Sciences, Medical Science, Nutrition, Social Sciences & Economics background are eligible to apply for this training programme. Preference will be given to those who have opportunity to utilize their experience in future for the benefit of the society. The language for training is English.

Interested person should send the application with her/his brief curriculum-vitae to aquaresearchlabdu@gmail.com

There is no registration fee for this training.

Venue

Aqua Research Lab, Department of Zoology,
University of Delhi, Delhi – 110 007

Time and Duration of Course

March 15 - 17, 2019, 3 days

Number of Seats 20

Last Date of Application

Application should reach Aqua Research Lab within
February 2019.



Department
of Biotechnology
Govt. of India

Department of Biotechnology (DBT)
Ministry of Science & Technology
Sponsored
A Hands-on Training Programme
On
RECENT ADVANCES IN FISH
NUTRITION



Organizer

Aqua Research Lab

Department of Zoology

University of Delhi, Delhi – 110 007

INDIA

Background

Fish is a healthy food for human consumption. It is a rich source of protein, lipid (ω -3 fatty acids), vitamins and minerals. In this millennium, quality protein is required to combat malnutrition. It has been found that the children are suffering from protein deficiency in the developing countries. Dr. Norman Borlaug rightly said "You can't build a peaceful world on empty stomachs and human misery." Therefore, Aquaculture is gaining ground to meet the increasing demand of healthy food for the growing global population. The quality of fish depends on the type of food it consumes. In fish nutrition, protein plays important role. Fish feed contributes more than 60% of production cost of fish in intensive culture. So far, fishmeal has been used as the major source of protein in fish nutrition. Non-availability of quality fishmeal and its high cost are two major constraints of the Aqua feed industry. Consequently, the entire Aquaculture industry has been searching for the alternative of fishmeal that will help in the production of quality fish in a sustainable manner. Aquatic macrophytes (weeds) are potential ingredients for the formulation of fish feed.

Department of Biotechnology (DBT), Government of India and Biotechnology and Biological Sciences Research Council (BBSRC), United Kingdom have initiated collaborative project to promote research in this crucial area. The dissemination of the research knowledge to the society is an important component of this research project.

Objective

The objective of this training programme is to update the participants about the application of non-conventional locally available ingredients in Fish Feed Formulation. The use of these ingredients will improve the quality of fish in terms of protein and lipids, especially amino acid and fatty acid profiles of fish flesh.

About the Course

Contents

1. Identification of aquatic macrophytes with high nutritive values.
2. Culture and production techniques of useful macrophytes.
3. Study of biochemical composition of the macrophytes in terms of protein, lipids, calorific value, amino acid profile and fatty acid profile.
4. Formulation of fish feed using these ingredients.
5. Culture of carps and tilapia with prepared feeds and maintenance of water quality in the culture systems.
6. Evaluation of quality of cultured fish viz. carcass composition, amino acid and fatty acid profiles.
7. The study of expressions of various genes of these cultured species (nutrigenomics).



Major Techniques

1. Amino acid analysis (Amino acid analyser)
2. Fatty acid analysis (Gas chromatography FID)
3. Gene expression analysis (RT-PCR)
4. Protein analysis (Kjeldahl apparatus)
5. Feed preparation (Twin-screw Extruder)
6. *In vitro* digestibility study using pH-stat method

