

## **ADVANCED COURSE IN ORGANIC AQUACULTURE**

CIHEAM Bari, 16 - 20 October 2023

The course is jointly organized by the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM), through the Mediterranean Agronomic Institute of Bari (CIHEAM Bari), and the EU H2020-funded project NewTechAqua (New Technologies Tools and Strategies for a Sustainable, Resilient and Innovative European Aquaculture), grant agreement No 862658, whose main goal is to expand and diversify European aquaculture production of finfish, molluscs and microalgae by developing and validating technologically-advanced, resilient and sustainable applications.

### **OBJECTIVES**

The aim of the course is to give a comprehensive overview of organic aquaculture in the Mediterranean area, as well as to provide knowledge about zootechnical and business requirements for designing and implementing organic aquaculture farming.

According to the European Market Observatory for Fisheries and Aquaculture Products (EUMOFA), in 2020 the total organic aquaculture production at EU 27 level was estimated at 74,032 tons, representing 6.4% of the total EU aquaculture production.

Organic aquaculture entails large challenges to deal with public and private standards, issues involved in feed and production, as well as to market these products against premium prices. Furthermore, organic standards can make it easier for third countries to open new markets and enhance local sustainable aquaculture. The aim of this training is to present the organic aquaculture production practices, its bottlenecks and the competitive position of certified products in the market.

By the end of the course participants will:

- be updated on the EU regulatory framework on organic aquaculture and understand the legal barriers for the implementation of organic aquaculture;
- have gained advanced knowledge on selective breeding programmes, reproduction, larval and juvenile rearing;
- have acknowledged the importance of fish nutrition, fish welfare and biosecurity in organic aquaculture;
- have understood the importance of marketing strategy, deepened the concept of consumer acceptance and analyzed the organic certification process;
- have gained practical experience from farmers who manage freshwater and marine water fish farms and from organic feed producers.



## **COURSE STRUCTURE**

The course will be held at the Tricase office of CIHEAM Bari for a total duration of 1 week, from 16 to 20 October 2023.

Classes will include frontal lectures, discussions, case studies and supervised group work. The course requires personal work and interaction among participants and with lecturers. The international characteristics of the course favour the exchange of experiences and points of view. Lectures will be delivered by well-qualified experts participating in the NewTechAqua project and from international institutions, universities, research centres and private companies from different countries.

## **BENEFICIARIES AND AND ADMISSION REQUIREMENTS**

The course is designed for a maximum of 20 participants with a university degree or/and with an experience of at least five years in the aquaculture sector, and is intended for professionals from public institutions or private entities as well as for technical advisors involved or planning to be involved in organic production. The course is addressed to participants from EU and non-EU Mediterranean countries.

## **APPLICATIONS**

**Candidates may apply online by filling in the application form at the following address: <https://online-application.iamb.ciheam.org/> and uploading a detailed Curriculum vitae and a Motivation letter (in English). Applications are open from 16 June to 16 July 2023.**

**Applications from candidates requiring employer's authorization to attend the course are accepted provisionally. The NewTechAqua project exempts all participants from the payment of registration fees.**

## **FINANCIAL SUPPORT**

Two types of scholarships are offered by the project:

- Full scholarships including full accommodation, travel and transportation costs, will be offered to a max of 4 participants coming from non-EU Mediterranean countries.
- Partial scholarships including only full accommodation at CIHEAM Bari facilities, will be offered to a max of 10 candidates from EU and non-EU Mediterranean countries.
- Full and partial scholarships will be assigned after the selection procedure, according to a ranking list.

For the remaining 6 participants selected from the list, travel, transportation and accommodation costs shall be self-financed.

The Organizers will provide for free lunch to all participants for the duration of the course and will cover insurance and medical assistance.



## PROGRAMME OF THE COURSE

### FIRST DAY

1. Course opening, objectives and introduction of participants.
2. The EU regulatory framework on organic aquaculture and an overview of the organic livestock/aquaculture production.
3. Regulatory and technical barriers for the implementation of organic aquaculture.
4. Question-time & formation of working groups.

### SECOND DAY

5. Breeding programmes & early life stages.
  - 5.1. Do we need selective breeding programmes under organic aquaculture? (increased feed efficiency, greater disease resistance, faster growth, high animal welfare, interactions between genotypes and environment/rearing systems).
  - 5.2. Reproduction, larval and juvenile rearing (production methods, hormones, suitable organic feed, local phenotypes).

### THIRD DAY

6. Fish nutrition, health & welfare.
  - 6.1. Nutrition and feed formulation (alternative proteins, vitamins, essential aminoacids, fermentation methods).
  - 6.2. Health, veterinary treatments, vaccination and biosecurity.
  - 6.3. Fish welfare (welfare traits and phenotyping, welfare biomarkers and metabolic indicators).

### FOURTH DAY

7. Market, consumer acceptance and certification process;
  - 7.1. Consumer knowledge and motivations, value perception and willingness to pay;
  - 7.2. Marketing strategy, prices, distribution and product promotion;
  - 7.3. Organic certification system, the organic control system, documentary evidence, labelling and the organic import system.

### FIFTH DAY

8. Case studies.
  - 8.1. Experiences of farmers who manage freshwater and marine water fish farms and organic feed producers.
9. Examinations.
10. Delivery of certificates.

