

## Training course

# Integrated agri-aquaculture systems for desert environments in the UAE



**Date:** 29 April – 2 May 2019

**Venue:** ICBA HQ, Dubai

## Course highlights

Over the past few years, the UAE has taken several actions towards achieving food security, one of the main challenges in the GCC region. Among these actions are developing strategies that regulate imports and production of food. Others are related to encouraging technologies that enhance food and nutrition security. The UAE is also considering developing nutrition-sensitive farms that integrate agriculture and aquaculture systems to decrease waste of resources and increase productivity and income of farmers.

ICBA is partnering with the Swing Fish farm that represents a unique success of integrated farming in the UAE. The farm is located in Al Wagan area near Al-Ain city. The owner, Mr. Abdulrahman Rashid Alshamsi, is an entrepreneurial farmer, very innovative and progressive, operating a farm where fish, vegetables and livestock are combined. He has desalination units on his farm and the reject brine (the by-product from desalination/wastewater source) is used for fish farming and then for halophyte cultivation through ICBA's specific intervention.

As 2019 marks 20 years since the establishment of the International Center for Biosaline Agriculture (ICBA) in the UAE, ICBA, through this course, will share some of its achievements and technologies developed over the years for addressing challenges to food security. The course will target experts, farmers and extension staff from over all the country. The course will focus on illustrating best agricultural practices for desert environments in the UAE.

## Agenda

### Monday 29 April 2019

09:00-09:30	Registration
09:30-10:30	<b>Opening ceremony</b> <ul style="list-style-type: none"><li>- Welcome speech</li><li>- Introduction of trainers and participants</li><li>- Introduction to ICBA<ul style="list-style-type: none"><li><b>Dr. Rakesh Kumar Singh</b>, Program Leader; Principle Scientist Plant Breeder</li></ul></li><li>- Group photo</li></ul>
10:30-11:00	Coffee break
11:00-11:45	<b>Session 1:</b> Introduction to Integrated agri-aquaculture farming <b>Dr. Dionysia Angeliki Lyra</b> , Halophyte Agronomist Scientist
11:45-12:30	<b>Session 2:</b> Improving the plant performance in marginal environments <b>Dr. Henda Mahmoudi</b> , Plant Physiologist
12:30-13:30	Prayers and lunch break

## Organizer

**International Center for Biosaline Agriculture (ICBA)**, United Arab Emirates

## Funding

**Islamic Development Bank (IsDB)**, Jeddah, Saudi Arabia

## Trainers

**Dr. Ahmed H. El-Naggar**, Soil Management Scientist

**Dr. Ali Elbattay**, Remote Sensing Scientist

**Dr. Asad Qureshi**, Water and Irrigation Management Scientist

**Dr. Dionysia Angeliki Lyra**, Halophyte Agronomist Scientist

**Dr. Habtamu Giday Gebraegziabher**, Post-Doc Fellow - Vertical and Urban Farming

**Dr. Henda Mahmoudi**, Plant Physiologist

**Dr. Hirich Aziz**, Horticulture Scientist

**Dr. Juan Pablo Rodriguez Calle**, Post-Doc Fellow - Quinoa Breeder

**Dr. Rahman Hifzurrahman**, Post-Doc Fellow - Plant Molecular Biology

**Stathis Lampakis**, Fish expert

## Coordinator

**Mr. Ghazi Al-Jabri**, Capacity Building Specialist

- 13:30-14:15 **Session 3:** Irrigation and soil management in salt-affected areas  
**Dr. Asad Qureshi**, Water and Irrigation Management Scientist  
**Dr. Ahmed H. El-Naggar**, Soil Management Scientist
- 14:15-15:00 **Session 4:** Water and soil monitoring for salt-affected areas (practice)  
**Dr. Asad Qureshi**, Water and Irrigation Management Scientist  
**Dr. Ahmed H. El-Naggar**, Soil Management Scientist
- 15:00-15:30 Discussion of the day lectures

### Tuesday 30 April 2019

- 09:00-10:00 Visit the integrated agri-aquaculture farm at ICBA
- 10:00-10:15 Coffee break
- 10:15-11:45 **Session 5:** Protected agriculture systems for rural and urban areas  
**Dr. Hirich Aziz**, Horticulture Scientist  
**Dr. Habtamu Giday Gebraegziabher**, Post-Doc Fellow - Vertical and Urban Farming
- 11:45-12:30 **Session 6:** Saline aquaponics  
**Mr. Stathis Lampakis**, Fish expert
- 12:30-13:30 Prayers and lunch break
- 13:30-14:30 **Session 7:** Alternative crops for degraded lands and their management using marginal water resources  
**Dr. Dionysia Angeliki Lyra**, Halophyte Agronomist Scientist  
**Dr. Rahman Hifzurrahman**, Post-Doc Fellow - Plant Molecular Biology
- 14:30-15:00 **Session 8:** Quinoa: a promising crop for desert environments – UAE experience  
**Dr. Juan Pablo Rodriguez Calle**, Post-doc Fellow - Quinoa Breeder
- 15:00-15:30 Discussion of the day lectures

### Wednesday 1 May 2019

- 07:00-12:30 **Visit Swing Fish Farm facilities (Al Wagan, Al Ain) and discussions with ICBA scientists and Farm Manager and hands-on training experience on various field activities (fish; halophytic forages; crops)**
- 12:30-14:00 Lunch and prayers
- 14:00-16:00 Return to ICBA

### Thursday 2 May 2019

- 09:00-10:30 Visit to ICBA Farm and hands-on field training experience
- 10:30-11:00 Coffee break
- 11:00-12:30 **Session 9:** Drones for agriculture  
**Dr. Ali Elbattay**, Remote Sensing Scientist
- 12:30-13:30 Prayers and lunch break
- 13:30-14:00 Course Evaluation
- 14:00-15:00 **Closing ceremony**  
- Speech of ICBA  
- Feedback of participants  
- Certificates