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  Opening ceremony
- Welcome speech
- Introduction of trainers and participants
- Introduction to ICBA
  Dr. Rakesh Kumar Singh, Program Leader; Principle Scientist
  Plant Breeder
- Group photo
10:30-11:00  Coffee break
11:00-11:45  Session 1: Introduction to Integrated agri-aquaculture farming
  Dr. Dionysia Angeliki Lyra, Halophyte Agronomist Scientist
11:45-12:30  Session 2: Improving the plant performance in marginal environments
  Dr. Henda Mahmoudi, Plant Physiologist
12:30-13:30  Prayers and lunch break
13:30-14:15 **Session 3**: Soil management in salt-affected areas  
Dr. Ahmed H. El-Naggar, Soil Management Scientist  
Dr. Zied Hammami, Post-doc, Agronomist & Crop Modeler  

14:15-15:00 **Session 4**: Water and soil monitoring for salt-affected areas (practice)  
Dr. Asad Qureshi, Water and Irrigation Management Scientist  
Mr. Kaleem ul Hassan, Laboratory Technician  

15:00-15:30 Discussion of the day lectures

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**Tuesday 30 April 2019**

09:00-10:00 Visit the integrated agri-aquaculture farm at ICBA  
10:00-10:15 Coffee break  
10:15-11:15 **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  

11:15-12:30 **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

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**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

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**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