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

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

Mr. Kaleem ul Hassan, Laboratory Technician

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

Mr. Stathis Lampakis, Fish expert

Dr. Zied Hammami, Post-doc, Agronomist & Crop Modeler

Coordinator

Mr. Ghazi Al-Jabri, Capacity Building Specialist

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

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

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