

Program for the visit of

**GFIME delegations**

International Center for Biosaline Agriculture (ICBA)

November 21, 2019



نزرع للغد

**ICBA**

AGRICULTURE FOR TOMORROW



**GFIME**

**GLOBAL FORUM**

**ON INNOVATIONS FOR MARGINAL  
ENVIRONMENTS**

# Field stations

\*1.



## Date Palm

In an area of 2.5 hectares, ICBA scientists carry out research to assess the long-term impact of different levels of irrigation water salinity on the growth, development, and production of several varieties of elite date palm varieties that are common in the UAE.

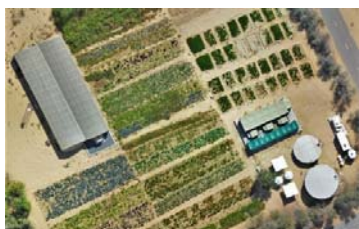
2.



## Drones for Agriculture

ICBA's Unmanned Aerial Vehicles (Drones) is amongst services and capabilities of the center in smart agriculture, allowing a better monitoring and management of both permanent and annual crops at various stages and for multiple purposes.

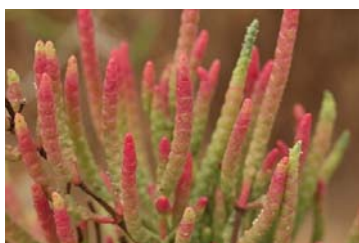
3.



## Integrated Aqua-Agriculture Systems

Research is under way in an area of 1.5 hectares to show on-farm management of available water resources (freshwater and brine) produced from desalinization units to reduce environmental hazards while maximizing profitability by growing aquatic and halophytic species.

4.



## Salicornia as Biofuel

Biofuel crops can be grown in non-conventional agricultural production systems in highly saline conditions including sea water. ICBA's focus is on tree species and crops that can be grown in coastal regions, in particular selecting best-performing Salicornia populations in terms of seed and biomass production for future breeding and commercial purposes.

\*5.



## Forage Production System

ICBA works to introduce integrated livestock and forage production systems to areas affected by water shortage and salinity. The Center also builds the capacity of small-scale farmers to produce, process and store forages and animal feed.

# Field stations

**\*6.**



## **Treated Wastewater**

An area of 1 hectare is used to evaluate the impact of using treated municipal wastewater for irrigation on vegetables, landscaping plants, forage, date palms and agricultural production systems.

**\*7.**



## **SCADA**

ICBA's SCADA is a control system that combines up-to-date, real-time data from weather stations with data from soil moisture and salinity sensors. It helps to test crops for salinity tolerance and optimize water productivity, and ensure accuracy of experimental conditions.

**8.**



## **Greenhouse and Net House**

ICBA's new design of greenhouse and net house cuts down on the use of water and energy and keeps optimum quality and production of crops at the same time, similar to plants grown in traditional greenhouses.

**\*9.**



## **\*Soil Museum**

ICBA's Soil Museum boasts a collection of outdoor and indoor exhibits providing visitors with a unique learning experience and demonstrating how the quality of sandy soils can be improved through using organic and inorganic amendments and become more productive.

**\* Sites to be visited**



**The International Center for Biosaline Agriculture (ICBA)** is a unique applied agricultural research center in the world with a focus on marginal areas where an estimated 1.7 billion people live. It identifies, tests and introduces resource-efficient, climate-smart crops and technologies that are best suited to different regions affected by salinity, water scarcity and drought. Through its work, ICBA helps to improve food security and livelihoods for some of the poorest rural communities around the world.

