

Training course

Application of Biosaline Agricultural Systems in Salt-Affected North African Areas

Date: 10-14 April 2017

Venue: Djerba, Tunisia

Background

North African farms face challenges related to economic expansion, sustainable use of saline water, and soil conservation. These farms are generally located in agro-ecological zones characterized by semi-arid climates where irrigation water salinity exceeds 7 dS/m in many cases, and high temperatures and evaporative demand, and a high risk of soil salinization are prevalent.

With these constraints to agricultural production, biosaline agricultural systems make it possible to achieve the expected agricultural returns on investment by customizing solutions for the use of available saline water for irrigation, selection of the adapted cropping systems composed of salt-tolerant fodders for animal feeding, optimization of the crop management systems enabling higher productivity, and recycling of the farm byproducts to enhance soil fertility.

This training course focuses on:

1. Salinity Assessment
2. Crop Diversification: selection of new adapted crops
3. Optimizing irrigation and other management systems for new crops
4. Set-up of scalable integrated fodder-livestock models

Agenda

Monday, 10 April 2017

08:30-09:00	Registration
09:00-09:30	Inauguration Session Welcome addresses Introduction of participants Group photos
09:30-10:00	Tea/Coffee Break
10:00-10:30	Lecture 1: Salinity assessment (Dr. Abdullah Al Shankiti)
10:30-11:30	Exercise 1: Case studies (related to Lecture 1)
11:30-12:30	Presentation of Working Groups 1 , results and discussion
12:30-13:30	Lunch Break
13:30-14:00	Lecture 2: Crop diversification (Dr. Makram Belhaj Fraj)
14:00-15:00	Exercise 2: Case studies in key agro-ecological zones (related to Lecture 2)
15:00-16:00	Presentation of Working Groups 2 , results and discussion
16:00-16:30	Discussion of practical problems raised by participants



Organizer

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

Institut National Agronomique de Tunisie (INAT), Tunisia

Funding Agency

PAPS Project, Ministry of Agriculture, Water Resources and Fisheries, Tunisia

Partners

NARS of Tunisia

Participants from Algeria, Libya and Morocco

Trainers

Dr. Makram Belhaj Fraj, ICBA

Dr. Abdullah Al Shankiti, ICBA

Course Coordinators

Dr. Youssef Trifa, INAT

Dr. Ali Sahli, INAT

Tuesday, 11 April 2017

- 08:30-09:00 **Lecture 3:** Irrigation management (Dr. Ali Sahli)
- 09:00-10:00 **Exercise 3:** Case studies in different irrigation systems setups (related to Lecture 3)
- 10:00-10:15 **Tea/Coffee Break**
- 10:15-11:15 **Presentation of Working Groups 3,** results and discussion
- 11:15-11:45 **Lecture 4:** Soil fertility management (Dr. Abdullah Al Shankiti)
- 11:45-12:30 **Exercise 4:** Case studies of building crop management systems based on best practices for enhancing water productivity and soil fertility (related to Lecture 4)
- 12:30-13:30 **Lunch Break**
- 1330-14:30 **Presentation of Working Groups 4,** results and discussion
- 14:30-15:00 **Lecture 5:** Forage production for animal feeding (Dr. Makram Belhaj Fraj)
- 15:00-16:00 **General discussion**
- 16:00-16:30 **Discussion of practical problems raised by participants**

Wednesday, 12 April 2017

- 07:00-17:00 Field visit to salt-affected lands in Tunisia: Experimental trials and farmers fields (Drs. Ali Sahli and Youssef Trifa)

Thursday, 13 April 2017

- 08:30-09:00 **Lecture 6:** Scalable integrated farm models (Drs. Abdullah Al Shankiti and Makram Belhaj Fraj)
- 09:00-10:00 **Exercise 5:** Case studies for application of biosaline agricultural technologies (related to Lecture 6)
- 10:00-10:15 **Tea/Coffee Break**
- 10:15-11:15 **Presentation of Working Groups 5,** results and discussion
- 11:15-12:30 **Lecture 7:** ICBA networks of model farms: MENA, CAC and Arabian Peninsula (Drs. Makram Belhaj Fraj and Abdullah Al Shankiti)
- 12:30-13:30 **Lunch Break**
- 13:30-14:30 **Presentation of Working Groups 6,** Design of model farms for North Africa region
- 14:30-15:30 **Lecture 8:** Summary of the biosaline agricultural systems (Drs. Makram Belhaj Fraj and Abdullah Al Shankiti)
- 15:30-16:00 **Discussion of practical problems raised by participants**

Friday, 14 April 2017

- 08:30-10:30 **General Discussion:** Possibilities of scaling up biosaline agricultural systems in North African region (Moderated by Drs. Youssef Trifa, Ali Sahli, Abdullah Al Shankiti and Makram Belhaj Fraj)
- 10:30-10:45 **Tea/Coffee Break**
- 10:45-12:00 **Closing session**
- Speech of Ministry Official, MoAWRF-Tunisia
 - Speech of ICBA Representatives
 - Word of thanks by participants
 - Distribution of certificates
 - Group photo
- 1200-1400 **Farewell lunch and close of training**