Training Workshop

Developing a user-friendly application for smallholder farmers for detection of plant disorders

Date: 29-31 March 2022
Venue: Tunis City, Tunisia

Highlights

Annual crop losses due to pests and diseases range between 20% and 40%, undermining rural livelihoods, national economies, and food security. Intelligent systems can help farmers make prompt in-situ diagnoses and facilitate effective response to plant diseases and pest attacks in their early stages.

The International Center for Biosaline Agriculture (ICBA), in partnership with the University of Barcelona (UB), are developing a user-friendly application for smartphones that smallholder farmers can use to identify and address diseases and nutritional disorders in their crops, and thus minimize losses in their yields. The project targets farmers in four countries of the Middle East and North Africa (MENA) region where ICBA has ongoing projects, including Egypt, Morocco, Tunisia, and the United Arab Emirates (UAE). Subsequently, the application will be rolled out in other countries where ICBA operates and beyond.

This training workshop will give insights and hands-on training on the application targeting farmers, experts and extension staff in the United Arab Emirates.

By the end of the training workshop, participants will be able to:

1. Learn about the role of innovation & technology in achieving global food security.
2. Understand the role of artificial intelligence in crop management and protection from diseases and insects infections.
3. Learn about the best control of diseases and pests under different farming systems.
4. Practice the use of a prototype of the application in the field.
Agenda

Tuesday 29 March 2022

08:30-09:00  Registration
09:00-10:00  Inaugural Session
   Welcome address, Prof. Dr. Faysal Ben Jeddi, Director General, INAT
   Speech of Guest of Honor, Prof. Dr. Chedly Abdelly, Director General, ANPR
   Speech of ICBA Project coordinator, Dr. Henda Mahmoudi
   Speech of Prof. Jose Luis Araus, Project team lead, UB
   Introduction of trainers and participants
   Presentation on the “The role of capacity development in achieving global food security: Success stories from the field”, Ghazi Al Jabri, Capacity Development Specialist, ICBA

10:00-10:30  Group photo and coffee break
10:30-11:00  Introduction of the project and the related activities, Henda Mahmoudi
11:00-11:30  Best control of diseases and pests under different farming systems: Relationship good farming, irrigation management and diseases control for each cropping system, Zied Hammami
11:30-12:00  Artificial Intelligence Overview and Workflow, ODK and ODK Downloader App, Shawn C. Kefauver
12:00-12:30  AI Applications for Crop Management, Jose Luis Araus
12:30-13:00  Importance of the Smart App for the Tunisian farmers and their willingness to utilize it, Marwa Hassine
13:00-14:00  Prayer break
14:00-14:30  AI Software for Disease Detection, José Armando Fernandez-Gallego
14:30-16:00  World Café seminars
   Importance of the App for Farmers, Facilitators: Ghazi Al-Jabri, Marwa Hassine, Shawn C. Kefauver
   Importance of the App for Extension service and researchers, Facilitators: Jose Luis Araus, Zied Hammami
16:00—16:30  Closing Remarks and groups distribution, Henda Mahmoudi

Wednesday 30 March 2022

08:00-15:00  Field practice on the applications—Group 1, All trainers
15:00-15:30  Course Evaluation, Ghazi Al-Jabri

Thursday 31 March 2022

08:00-15:00  Field practice on the applications—Group 2, All trainers
15:00-15:30  Course Evaluation, Ghazi Al-Jabri