Launching the applied phase of the project:

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

Date: 26 - 28 July 2021
Venue: Center of Biotechnology of Borj Cedria (CBBC), Tunis 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 and extension staff in Tunisia.

Targeted participants include extension officers from local research and extension institutes, academia and pioneer farmers in Tunisia.

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

1. Learn the principals of agri-preneurship for food security.
2. Understand the role of artificial Intelligence in crop management and protection from diseases and insects infections.
3. Differentiate between data management protocols.
4. Practice the smart application in the field.
Agenda

Monday 26 July 2021

08:30-09:00  Registration
09:00-11:00  Inaugural of the applied phase of the Project “Developing a user-friendly application for smallholder farmers for detection of plant disorders”
  •  Welcome note of host country, Dr. Ahmed Debez, CBBC
  •  Welcome address of Project coordinator, Dr. Henda Mahmoudi
  •  Speech of ICBA, Dr. Tarifa Alzaabi, Acting Director General, ICBA
  •  Speech of Pr. Chedly ABDELLY, DG, ANPR
  •  Introduction of Trainers and participants
  •  Keynote presentation: The Role of Innovation & Technology in Achieving Global Food Security, Dr. Tarifa Alzaabi, Acting Director General, ICBA
  •  Farmers’ Field Schools in the MENA region, Ghazi Al-Jabri
  •  Signing of MoU between ICBA and CBBC

11:00-11:30  Group photo and coffee break
11:30-12:00  Project Overview: UB/ICBA Collaborative Research, Henda Mahmoudi
12:00-12:30  Artificial Intelligence Overview and Workflow, ODK and ODK Downloader App, Shawn C. Kefauver
12:30-13:00  Field Data Collection Protocols and Pre-Processing, Ma. Luisa Buchaillot
13:00-13:30  AI Software for Disease Detection, Shawn C. Kefauver/José Armando Fernandez-Gallego
13:30-14:00  AI Applications for Crop Management, Jose Luis Araus
14:00-15:00  Lunch break
15:00-15:30  Crop Monitoring: Affordable, User Friendly Tools and Sensors, Jose Luis Araus
15:30-16:00  Image Analyses for Crop Breeding and Crop Management, Shawn C. Kefauver
16:00-16:30  RGB, Thermal and Multispectral Analysis of Salt Stress in Quinoa, Luisa Buchaillot
16:30-17:00  Closing Remarks and groups distribution, Henda Mahmoudi

Tuesday 27 July 2021

08:30-14:30  Field practice on the applications - Group 1, All trainers
14:30-15:30  Course evaluation - Group 1, Ghazi Al-Jabri

Wednesday 28 July 2021

08:30-14:30  Field practice on the applications - Group 2, All trainers
14:30-15:30  Course evaluation - Group 2, Ghazi Al-Jabri