

The J. Blaustein Inst. for Desert Research (BIDR),
The Agricultural Research Organization (ARO), Lancaster
University, Myerscough College and Qumran Palestine
Eco-Consulting Services cordially invite you to participate in

BRITISH COUNCIL-FUNDED MENA-UK WORKSHOP **WATER-SAVING IN AGRICULTURE & HORTICULTURE**

MARCH 21, 2023

Evans Auditorium, Sede Boqer campus

Global warming reduces water supplies in both rural and urban settings, affecting community livelihoods and quality of life in agricultural and urban landscapes. Increasingly, agricultural and domestic water use are in conflict as both seek to maximize water allocations to deliver important ecosystem services such as food security and urban comfort. Those selecting appropriate plant species to guarantee these services within these different environments adopt similar frameworks of analysis, to best use irrigation resources and adapt green infrastructure to climate change. Each community seeks to optimise a fundamental conflict between spending water (to ensure crop productivity or cool urban environments) and saving water (to ensure planted species survive) according to soil water availability. Sharing complementary technical knowledge on diversity of plant responses (including water saving species), water-saving irrigation scheduling (driven by improved and/or remote measurements of plant water status) and use of non-conventional (waste) waste sources should enhance resilience in delivering essential ecosystem services. Bringing academic, technical and commercial communities from Israel, Palestine and the UK together to exchange knowledge and transfer technology on plant selection and irrigation management offers opportunities to enhance practice.

08:45-9:00 REGISTRATION

9:00-9:15 GREETINGS

SESSION 1 - CHALLENGES OF DRYLAND CROPPING

CHAIR: Prof. Noemi Tel-Zur, BIDR

9:15-09:45 Prof. Ian Dodd – *keynote*, Lancaster University
Plant diversity and irrigation management to enhance ecosystem services

09:45-10:05 Dr. Jawad Shoqeir, Qumran Palestine
Conventional and non-conventional water resources in Palestine

10:05-10:25 Prof. Osnat Gillor, BIDR
Trophic relations in the soil microbial food web in response to treated wastewater irrigation

10:25-10:45 Dr. Alon Ben Gal, ARO
Precision irrigation of horticultural crops

10:45-11:05 Dr. Or Sperling, ARO
Matching irrigation with almonds' physiology reveals the costs of deficit irrigation

11:05-11:30 COFFEE BREAK

SESSION 2 - EXPLOITING PHYSIOLOGICAL MECHANISMS

CHAIR: Prof. Ian Dodd, Lancaster

11:30-12:00 Prof. Malcolm Bennett – *keynote*, University of Nottingham
Hydraulic flux responsive hormone redistribution determines root branching

12:00-12:20 Dr. Eric Ober - National Institute of Agricultural Botany
Phenotyping wheat for improvements in the effective use of water

12:20-12:40 Prof. Zvi Peleg, Hebrew University
Back to the wild roots of wheat climate adaptability

12:40-13:30 LUNCH

SESSION 3 - EXPLOITING GENETIC DIVERSITY

CHAIR: Prof. Malcolm Bennett, Nottingham

13:30-14:00 Prof. Menachem Moshelion – *keynote*, Hebrew University
Crop's stress tolerance VS yield tolerance; what are we aiming for?

14:00-14:20 Prof. Noemi Tel-Zur, BIDR
Cacti as crops in drylands

14:20-14:40 Dr. Elisabeth Larsen, Royal Horticultural Society
Provision of ecosystem services by garden trees

14:40-15:00
Flash presentations (10 speakers – 2 minutes each)

15:00-15:30 COFFEE BREAK

SESSION 4 - SYSTEM INTEGRATION / ENABLING TECHNOLOGIES

CHAIR: Dr. Alon Ben Gal, ARO

15:30-15:50 Dr. Mark Gush, Royal Horticultural Society
Water management considerations within domestic gardens of the UK

15:50-16:10 Prof. Rebecca Killick, Lancaster University
Time series analysis of sap flow data to inform tree irrigation scheduling

16:10-16:30 Dr. Tarin Paz-Kagan, BIDR
Remote sensing and artificial intelligence applications for sustainable agricultural solutions

16:30-17:00 PANEL DISCUSSION & CLOSING REMARKS

17:00 POSTER SESSION

Pre-registration is required until February 28 ([click here](#))

