



אוניברסיטת בן-גוריון בנגב
جامعة بن غوريون في النقب
Ben-Gurion University of the Negev



Gilat & BIDR Food Security in Arid Regions Student Symposium

July 11th 2023, Ramat Negev R&D



8:30–9:30
R&D Tour

9:30–9:45
Registration and morning coffee

9:45–10:00
Greetings
Dr. Eran Raveh
Prof. Naftali Lazarovitch

10:00–11:40
Session 1
Plant Nutrition and Physiology

Evaluation of grapevine physiological responses in relation to potassium fertigation and short drought stress period
Emilio Quintana-Molina

Management of table grapes through precision nitrogen fertilization
Patrick Mdemba

Optimizing nitrogen fertigation through root trait phenotyping
Sharon Chemweno

The effect of full moonlight (FML) on cellular activities and post-germination growth of *Brassica uncea* (Indian mustard)
Priyanka Govindagowda

Family ties: Root-root communications within the Solanaceae family
Aye Nyein Ko

Is serotonin involved in the response of *Setaria viridis* to the combination of abiotic and biotic stresses?
Anuma Dangol

11:40–12:00
Coffee Break

12:00–13:00
Session 2
Food Security Ceremony Greetings
Dr. Michael Mirilashvili
Prof. Daniel Chamovitz, President,
Ben-Gurion University of the Negev

Lightning Talks and Awards
Minimizing brine discharge by membrane distillation technology to safeguard aquatic ecosystems
Kareem Turaani

The roles of rootstocks and different leaf ages in grapevines' salt tolerance
Yaniv Lupo

Recovering phosphorus from effluents by integrating sorption and bipolar membranes electrodialysis
Ru Liu

Characterization of hydrothermally treated human excreta, focusing on the aqueous phase, fate of micropollutants and plant growth inhibitors
Chigozie Uja

The microbiome of *Wolffia* and its role in B12 biosynthesis
Avital Friedjung

Near-real-time detection of wildfires using geostationary satellites and machine learning models
Asaf Yupiter Vanunu

Development of a new approach for optimizing nitrogen fertilizer application by a novel technology of real-time soil nitrate monitoring
Yonatan Yekutieli

The role of irrigation water quality and gypsum application form in the reclamation of saline and sodic soil
Rashika Solomon

The effect of non-rainfall water inputs on soil CO₂ fluxes in dry desert soils
Nadav Bekin

Regulation of plant transpiration by carbohydrate availability
Aviad Perry

13:00–14:00
Lunch Break

14:00–15:15
Session 3
Soil, Plant, and Microorganism Interactions

The contribution of microbiome to the development and detoxification of xenobiotics in *Drosophila* larvae associated with sour-rot disease in grapes
Tial Len Sung

Characterizing the production of omega-3 eicosapentaenoic acid by a novel robust microalga
Thanh Nguyen Van

The effect of water scarcity on biological soil crust phototrophs that prevent wind soil erosion
Khin Maw Kyi

Harnessing P-hyperaccumulating microalgae for sustainable phosphorus recovery from liquid waste streams
Victor Okuku Akuku

Spectroscopy analysis of available soil P as a diagnostic approach to yield
Yuli Shaham

15:15–15:30
Coffee Break

15:30–16:30
Session 4
Plant Environmental Stress

Evaluating the effects of environmental conditions and biotic factors on antimicrobial activity of algal biocontrol agent (BCA)
Benard Ng'eno

The effect of molybdate and sulfate on *Arabidopsis* aldehyde oxidases in plants exposed to stress
Nja Zai Du

Effect of soil microplastic contamination on plant-associated microbial community and plant growth
Wutt Yi Moe Ooo

Lightning talks
Process that decides the localization of inherited microbiome after germination
Uttam Kumar

Expression level interplay between *Arabidopsis* aldehyde oxidases affect plant resistance to abiotic stresses
Zhadyrassyn Nurbekova

Unveiling the hidden impact: Microplastics reshaping soil microbiomes
Lingyan Zhang

16:30–17:00
Closing, Awards for Best Presentations



BIDR
The Jacob Blaustein
Institutes for
Desert Research



FAAB
The French Associates Institute for
Agriculture and Biotechnology
of Drylands



The Moshe Mirilashvili Center
for Food Security in the Desert

