



**LAFIBA3
2025**

THE 3rd INTERNATIONAL LAAYOUNE FORUM

ON BIOSALINE AND ARID LAND AGRICULTURE

CONFERENCE AGENDA

20-22 MAY 2025
LAAYOUNE, MOROCCO

In partnership with



SCAN ME



Welcome from the conference chair

Dear Colleagues,

It is a pleasure to announce the third edition of the International Laayoune Forum on Biosaline Agriculture (LAFOBA3). This conference is organized jointly by the African Sustainable Agriculture Research Institute (ASARI), University Mohammed VI Polytechnic (UM6P) and Phosboucraa foundation in partnership with the OCP foundation and the International Center for Agricultural Research in the Dry Areas (ICARDA). LAFOBA3 will be held physically from May 20th to 22nd 2025 in Laayoune city, Morocco.

The Forum is organized in view of enormous impact the soil and water salinization have on ecosystems, agriculture, livelihoods and food security worldwide. Therefore, it is crucial to map the areas already affected by salinity or at risk on a global scale, develop, and implement strategies and practices to effectively and efficiently address this issue.

The forum is also a continuation of the previous successful first and second International Laayoune Forum on Biosaline Agriculture, as salinity still affects many aspects of human life. Moreover, the concept of using saline water for irrigation to increase food production has been advocated by many research scientists, organizations, institutions and authorities for the last five decades.

Furthermore, the forum will look at the progress that has been made in salinity management at national, regional and global levels. As practice and policy on salinity management have been further advanced, the forum will benefit a wide range of stakeholders, including scientists, policymakers and experts. Thus, it will serve as a platform for exchange of knowledge on the latest advancements on salinity.

We hope to see you in Laayoune



Prof. Abdelaziz Hirich, chair

University Mohammed VI Polytechnic (UM6P), African Sustainable Agriculture Research Institute (ASARI), Laayoune, Morocco.



Meet our Keynote Speakers



Prof. Mark Tester

Chair of the Center of Excellence for Sustainable Food Security, King Abdullah University of Science and Technology (KAUST), Saudi Arabia



Dr. Fatma Sarsu

Section Head, Plant Breeding and Genetics Section, Joint FAO/IAEA Centre – Nuclear Techniques in Food and Agriculture International Atomic Energy Agency (IAEA), Austria



Prof. Katarzyna Negacz

Professor at the Institute for Environmental Studies (IVM) at the Vrije Universiteit Amsterdam (VU), Netherlands



Prof. Ragab Ragab

President of the International Commission on Irrigation & Drainage, ICID (2020-2023), UK Centre for Hydrology (UK CEH), United Kingdom



Professor Rick Jellen

Professor of genetics at Brigham Young University in Provo, Utah, USA



Professor Hirt Heribert

King Abdullah University of Science and Technology (KAUST), Saudi Arabia



Dr. Mina Devkota

Senior Scientist (Agronomist) at the International Center for Agriculture Research for Dry Areas (ICARDA), Morocco



Professor Edward Barrett-Lennard

Professorial Fellow at Murdoch University in Western Australia and Senior Principal Soil Scientist in DPIRD of Western Australia, Australia



Professor Rachid Serraj

Director of Strategy & Africa Initiative at Mohammed VI Polytechnic University (UM6P), Morocco



Professor Jose Luis Araus Ortega

University of Barcelona, Spain



Dr. Didier Bazile

Senior scientist, CIRAD, UMR SENS, F-34398 Montpellier, France



Dr. Vinay Nangia

Principal Scientist and Research Program Director - Soil, Water, and Agronomy at ICARDA



Professor Muhammad Farooq

Professor and Head of the Department of Plant Sciences at Sultan Qaboos University, Oman



Dr. Krishna Devkota

Senior Scientist at the ICARDA, Morocco



Dr. Shabbir A Shahid

Research Scientist, Kuwait Institute for Scientific Research (KISR), Kuwait



Professor Ahmed Laamrani

Mohammed VI Polytechnic University (UM6P), Morocco



Dr. Dionysia Angeliki Lyra

Halophyte Agronomist, ICBA, UAE



Dr. José Antonio Hernández

Senior Researcher from the Spanish National Research Council (CSIC), Spain

Scientific committee

- Professor Jose Luis Araus Ortega, University of Barcelona, Spain
- Dr. José Antonio Hernández, Spanish National Research Council (CSIC), Spain
- Professor Lhoussaine Bouchaou, Ibn Zohr University, Morocco, Affiliate professor to University Mohammed VI Polytechnic, Morocco
- Professor Abdulrasoul Alomran, King Saud University, Saudi Arabia
- Professor Atul Bhargava, Mahatma Gandhi Central University, Bihar, India
- Professor Mohamed Hachicha, INRGREF, Tunisia
- Professor Filippo Randelli, University of Florence, Italy
- Dr. Didier Bazile, CIRAD, France
- Dr. Giulia Atzori, National Research Council of Italy (CNR), Italy
- Professor Katarzyna Negacz, Vrije Universiteit Amsterdam (VU), Netherlands
- Professor Mohamed Hafidi, Cadi Ayyad University (UCA), Morocco, Affiliate Prof at University Mohammed 6 Polytechnic (UM6P), Morocco
- Professor Masoumeh Salehi, National Salinity Research Center, Iran
- Professor Metin S. Sezen, Çukurova University, Turkey
- Professor Munir Jamil M. M. Al Rusan, University of Science and Technology (JUST), Jordan
- Professor Abdelilah Meddich, Cadi Ayyad University (CAU) in Marrakech, Morocco
- Professor Abdelaziz Nilahyane, Mohammed VI Polytechnic University (UM6P), Morocco
- Professor Ahmed Youssef, Former President of Desert Research Center, Egypt
- Dr. Federico Martellozzo, University of Florence, Italy
- Professor Ahmed Laamrani, Mohammed VI Polytechnic University (UM6P), Morocco
- Dr. Jamal Hallam, National Institute of Agricultural Research (INRA), Morocco
- Dr. Mohammad Shahid, International Center for Biosaline Agriculture, UAE
- Professor Yassine Ait Brahim, Mohammed VI Polytechnic University (UM6P), Morocco
- Dr. Francis Tetteh, CSIR-College of Science and Technology (CCST), Ghana
- Professor Gregorio Barba Espín, CEBAS-CSIC, Spain
- Dr. José Ramón Acosta Motos, Catholic University of Murcia (UCAM), Spain
- Professor Cherki Ghoulam, Cadi Ayyad University (UCA), Morocco, affiliate professor at Mohammed VI Polytechnic University, Benguerir, Morocco
- Professor Ngonidzashe Chirinda, Mohammed VI Polytechnic University (UM6P), Morocco
- Dr. Nadia Bazihizina, University of Florence, Italy
- Dr. Juan Pablo Rodríguez Calle, University of Copenhagen, Denmark
- Prof. Dr. Amrakh I. Mamedov, Tottori University, Japan, Institute of Botany, ANAS, Baku, Azerbaijan
- Professor Khalil El Mejahed, Mohammed VI Polytechnic University (UM6P), Morocco
- Professor Dennis Ashilenje, Mohammed VI Polytechnic University (UM6P), Morocco
- Dr. Erick Amombo, Mohammed VI Polytechnic University (UM6P), Morocco
- Professor Mohamed Ait-El-Mokhtar, Hassan II University of Casablanca, Morocco
- Professor Irfan Afzal, Mohammed VI Polytechnic University (UM6P), Morocco

Organizing committee

Mohammed VI Polytechnic University (UM6P), African Sustainable Agriculture Research Institute (ASARI), Laayoune, Morocco

- Pr. Abdelaziz Hirich
- Pr. Lamfeddal Kouisni
- Dr. Abdel Aziz Hassane Sidikou
- Prof. Abdelaziz Nilahyane
- Prof. Irfan Fzal
- Prof. Berhanu Amsalu FENTA
- Mr. Hamdi Dounia
- Miss. Ezzahra Hammad
- Miss. Ihsane Mnaouer
- Miss. Hafsa Debbagh-Nour
- Mr. Youssef Jbilou
- Mr. Mohammed Errachak
- Mr. Mohamed Daoui

Phosboucraa foundation

- Mr. Abdelghani Yatribi
- Miss. Jihane Moumine

Publications

After the conference, the Committee will select manuscripts that may be included for publication in **Special Issue “advances in biosaline and arid land agriculture”** which will be hosted by the Journal of the Science of Food and Agriculture (IF: 3.3) published by Wiley.

Deadlines:

- Submission Deadline: 30 June 2025
- Final Manuscript Decisions: 1 October 2025
- Target Publication Date: 1 December 2025

PROGRAMME

Time zone: UTC+01:00

Day 1	May 20, 2025
13:00	Transport of participants from Laayoune city to the conference venue (ASARI-UM6P Research center)
14:30	Registration
15:00-15:40	Opening ceremony (Room A) <i>Moderator: M. Mounir Messari</i> - Welcome Address: M. Hicham El Habti, President of University Mohammed VI Polytechnic (UM6P) M. the Wali of the region of Laayoune Sakia El Hamra M. the President of the region Laayoune Sakia El Hamra - Opening address: by Pr. Abdelaziz Hirich, UM6P, LAFOBA3 chair
15:40-16:40	Plenary session 1: cutting-edge science towards improving crop resilience to drought and salinity <i>Keynote speech: Development and delivery of stress tolerant crops for marginal environments</i> <i>Pr. Mark tester, King Abdullah University of Science and Technology (KAUST), Saudi Arabia</i> <i>Discussion panel:</i> <i>Panelists:</i> - Pr. Mark tester, KAUST, Saudi Arabia - Dr. Fatma Sarsu, International Atomic Energy Agency (IAEA), Austria - Pr. Rick Jellen, Brigham Young University in Provo, USA - Pr. Edward Barrett-Lennard, Murdoch University, Australia
16:40-17:00	Coffee break
17:00-18:00	Plenary session 2: From Lab to farmers: how to fill the gap and accelerate the adoption <i>Keynote speech: Agriculture in Biosaline and Marginal Environments: Lessons and new perspectives for Africa.</i> <i>Pr. Rachid Serraj, UM6P, Morocco</i> <i>Discussion panel:</i> <i>Panelists:</i> - Pr. Rachid Serraj, UM6P, Morocco - Pr. Mina Devkota, ICARDA, Morocco M. Abderrahmane Amri, Regional Department of Agriculture, Laayoune, Morocco M. Bakkad Mohamed Lamine, Halib Sakia El Hamra Cooperative, Morocco M. Nawfel Roudies, Al Moutmir, UM6P, Morocco

Day 2	May 21, 2025				
Where ?	Room A	Room B	Room C	Room D (Virtual session)	
09:00	Transport of participants from Laayoune city to the conference venue (ASARI-UM6P Research center)				
10:00-11:00	Session 4.1: Breeding and Genetic Improvement of Crops Under Marginal Environments Session chair: Dr. Giulia Atzori, <i>National Research Council of Italy, Italy</i> Keynote speech: Exotic Halophyte Resources for Improving Quinoa. Pr. Rick Jellen, <i>Brigham Young University in Provo, USA</i> - sciforum-116836: Genome Wide Association Study and Genomic Prediction for Stem Rust Resistance at The Seedling and the Adult Plant Growth Stage in Elite Spring Bread Wheat Genotypes. By Khaoula Lahrichi, <i>University Mohammed V, Morocco</i> - sciforum-116819: Effect of Fertilizer Amendments and Deficit Irrigation on Physiological Performance and Gene Expression of Forage Sorghum Grown Under Saline Conditions. By Maryam Ghibar, <i>UM6P, Morocco.</i>	Session 1.1: Salinity Problem: Global State of Art Session chair: Dr. Jamal Hallam, <i>INRA, Morocco</i> Keynote speech: Salinity Management in Arid Environments Agriculture for Food Security. Dr. Shabbir A Shahid, <i>Kuwait Institute for Scientific Research (KISR), Kuwait</i> - sciforum-116268: Evaluating Soil Salinity Variations in Semi-Arid Regions of Morocco via Soil–Water Extract Analysis. By Jamal-Eddine Ouzemou, <i>UM6P, Morocco</i> - sciforum-117685: Exploring Soil Salinization in the Farming Areas of Kuwait to Improve Farms Productivities for Food Security – Case of Wafra Farming Area. By Amal Jafer Alkandari, <i>KISR, Kuwait</i>	Session 3.1: Crop Responses to Salinity and Water Stress Session chair: Pr. Ahmed Bouaziz, <i>IAV Hassan II, Morocco</i> Keynote speech: Effect of Saline Irrigation and Genotype on Seed Yield and Quality in Different Crop Species. Pr. Jose Luis Araus Ortega, <i>University of Barcelona, Spain</i> - sciforum-116749: Physiological Plasticity and Ion Homeostasis in Six Quinoa Genotypes Under Severe Salinity. By Manal Mhada, <i>UM6P, Morocco</i> - sciforum-117362: Effect of Water Irrigation Saving on Growth and Yield of Different Vegetable Crops Grown under the Mediterranean Climate Conditions of Morocco. By Kamal Aberkani, <i>University Mohammed I, Morocco</i>	Session 2.1: Salinity Mapping and Characterization Session moderator: Dr. Abdel Aziz Hassane Sidikou, <i>UM6P, Morocco</i> - sciforum-116744: Precise Mapping of Soil Salinity Using EM38 for Sustainable Management in Semi-Arid Regions: The Case of the Central Bahira Plain. By Houria Dakak, <i>National Agricultural Research Institute (INRA), Morocco</i> - sciforum-116262: A Comprehensive Assessment of Groundwater Quality for Irrigation Uses in The Mediterranean Region of Morocco: Multi-Index, Statistical, and GIS Analysis. By Ayoub Lazaar, <i>UM6P, Morocco</i> - sciforum-116753: Geochemical and Isotopic Insights into Groundwater Salinity Mechanisms in the Arid Endorheic Basin of Bahira, Morocco. By Ahmed El-Azhari, <i>UM6P, Morocco</i>	
11:00-11:30	Coffee break				

Day 2	May 21, 2025			
Where ?	Room A	Room B	Room C	Room D (Virtual session)
11:30-12:30	Session 6.1: Agricultural Use of Soil Amendment, Fertilization and Microbe's Association Session chair: Dr. Giulia Atzori, National Research Council of Italy, Italy - sciforum-116739: Biostimulant Applications Improve Durum Wheat Yield, and Soil Health Under Drought Conditions. By Chayma Ikan, Cadi Ayyad University, Morocco - sciforum-116745: Optimizing Maize Performance Under Salt Stress: Unveiling the Impact of Phosphorus Forms and Insect Frass Rates on Growth, Roots, Physiology, And Nutrient Content. By Driss Touhami, UM6P, Morocco - sciforum-119710: Evaluating the Efficacy of <i>Peganum harmala</i> and <i>Moringa oleifera</i> as Potential Plant Biostimulants on Crop Performance Under Saline Conditions. By Sfia Baha, UM6P, Morocco - sciforum-118915: Mining Halotolerant Microbes from Desert Ecosystems: A Promising Solution to Enhance Salt Stress Tolerance. By Said Khourchi, UM6P, Morocco	Session 2.2. Salinity Mapping and Characterization Session chair: Dr. Jamal Hallam, INRA, Morocco - sciforum-116269: Soil Salinity Mapping Using Directed Soil Sampling from a Hand-held Electromagnetic Sensor (EM38-MK2). Very High-resolution Multispectral Imagery (Drone and Planetscope), And Topographic Attributes in a Moroccan Semi-arid Region: Case Study at the Field Scale. By Joyce Chindong, UM6P, Morocco - sciforum-114999: Machine Learning and Remote Sensing for Soil Salinity Assessment in Tadla Plain in Morocco. By Hamza Ait-ichou, Ibn Zohr University, Morocco - sciforum-113790: Mapping and Assessment of Salt-affected Soils Using Remote Sensing Indicators for Sustainable Management in Arid Lands: A Case Study from The National Parc of Khnifiss in Southwestern Morocco. Najat Sarkouh, University Mohamed V, Morocco	Session 10.1: Climate Change and Sustainability Aspects Session chair: Pr. Ahmed Bouaziz, IAV Hassan II, Morocco - sciforum-116677: Enhancing Weed Suppression and Biomass Productivity through Cereal-Forage Legume Mixtures under Conservation Agriculture in Morocco's dry land. By El Hocine Hirich, INRA, Morocco - sciforum-116405: Relevance of Crop Modelling in Assessing Climate Change Impact on UAE Agricultural Systems and Irrigation Management. By Achraf Mamassi, International Center for Biosaline Agriculture, UAE - sciforum-114881: Subsurface Irrigation: An Innovative Solution to Improve Water Productivity and Limit the Phenomenon of Salinization in Arid and Semi-Arid Climates. By Bouazzama Bassou, INRA, Morocco	Session 3.2: Crop Responses to Salinity And Water Stress Session moderator: Dr. Abdel Aziz Hassane Sidikou, UM6P, Morocco Keynote speech: Effect of Halophyte-based Crop Managements in Physiological, Biochemical and Metabolomic Responses of Tomato Plants Under Moderately Saline Conditions. Dr. José Antonio Hernández, Spanish National Research Council (CSIC), Spain - sciforum-118623: Salinity Stress Tolerance of Oilseed Cultivars at the Germination Stage. By Mansure Bayram, Tarbiat modares university, Iran - sciforum-115539: Comparison of Yield and Fodder Quality of Six Genotypes of Quinoa in Different Stages of Harvesting and Irrigation with Saline Water. By Mohammad Kafi, Ferdowsi University, Iran - sciforum-116932: Water Relations and Growth Response of <i>Phillyrea angustifolia</i> Plants to Deficit and Saline Irrigation Strategies. By Sara Álvarez, Instituto Tecnológico Agrario de Castilla y León, Spain

Day 2	May 21, 2025				
Where ?	Room A	Room B	Room C	Room D (Virtual session)	
12:30-13:30	Session 6.2: Agricultural Use of Soil Amendment, Fertilization and Microbe's Association Session chair: Pr. Redouane Choukr-Allah, IAV Hassan II, Morocco Keynote speech: Harnessing the Power of Soils and Plants to Provide Solutions for a Sustainable Planet. Pr. Hirt Heribert, KAUST, Saudi Arabia - sciforum-116518: Soil Properties and Bacterial Community Structure Associated with Four Desert Plant Species from Southern Morocco. By Hafsa Debbagh-Nour, UM6P, Morocco - sciforum-116783: Optimizing Blue Panicgrass Productivity in Phosphate Mining Tailings: Effective Strategies and Approaches. By Anass Bourazza, UM6P, Morocco	Session 2.3: Salinity Mapping and Characterization Session chair: Pr. Kamal Aberkani, University Mohammed I, Morocco Keynote speech: Mapping and Monitoring Soil Salinity in Arid and Semi-Arid Regions Using Advanced Remote Sensing Technology and AI. Pr. Ahmed Laamrani, UM6P, Morocco - sciforum-122573: High-Resolution Soil Salinity Mapping and Zone-Based Specific Management Using ground and Proximal Sensing Data. By Jamal-Eddine Ouzemou, UM6P, Morocco - sciforum-116850: Spatial Distribution of Boron in the Fom El Oued Aquifer, Province of Laayoune, Morocco. By Abderrazak Errich, Mohammed V University, Morocco	Session 1.2: Salinity Problem: Global State of Art Session chair: Pr. Joann K. Whalen, UM6P, Morocco Keynote speech: Living with Salinity: Getting the Right Plant into the Right Place in Saline Landscapes. Pr. Edward Barrett-Lennard, Murdoch University, Australia - sciforum-115886: Assessment of Water and Soil Salinity Stress in Moroccan Oases: A Survey-Based Approach. By Ilham Zaidali, UM6P, Morocco - sciforum-114220: Phosphogypsum Valorization Prospects for Saline Soil Amelioration and Revegetation of Desert Lands. By Dennis Shibonje Ashilenje, UM6P, Morocco	Session 3.3: Crop Responses to Salinity and Water Stress Session moderator: Dr. Fatima Zahra Briache, UM6P, Morocco - sciforum-114191: Adaptive Mechanisms and Bioactive Properties of <i>Salicornia europaea</i> L. Under Native and Cultivated Conditions in Qatar: A Comparative Study. By Elsayed Mohamed Elazazi, Ministry of Municipality, Qatar - sciforum-117665: Environmental Modulation of Quinoa Seed Nutritional Quality: A Molecular Perspective. By Maria Reguera, Universidad Autónoma de Madrid, Spain - sciforum-116993: Impact of Salinity on Germination and Seedling Development in Pearl Millet (<i>Pennisetum glaucum</i> L.) Accessions from Arid Regions of Tunisia. By Tebra Triki Triki, IRA Medenine, Tunisia - sciforum-108664: Saline Water Irrigation Management Through Electromagnetic Treatment: Effect on Soil and Potatoes. By Rawaa Akrimi, Regional Center of Agricultural Research of Sidi Bouzid (CRRA), Tunisia	
13:30-14:30	Lunch break				
14:30-15:30	Session 5.1: Agricultural Water Management in Marginal Environment Session chair: Pr. Redouane Choukr-Allah, IAV Hassan II, Morocco Keynote speech: Accurate Estimation of Crop Water Requirement Using New Technology. Pr. Ragab Ragab, UK Centre for Ecology and Hydrology, UKCEH, UK and President H.	Session 10.2: Climate Change and Sustainability Aspects Session chair: Pr. Kamal Aberkani, University Mohammed I, Morocco Keynote speech: sciforum-117954: Upscaling Saline Nature-based Solutions in Times of Climate Change and Biodiversity Loss. Pr. Katarzyna Negacz, Vrije Universiteit Amsterdam, Netherlands	Session 7.1: Best Cropping Practices to Cope with Abiotic Stress Session chair: Pr. Irfan Afzal, UM6P, Morocco Keynote speech: Quinoa Biodiversity, Agricultural Practices, and Nutritional Profile Variability Under Stress Conditions. Dr. Didier Bazile, CIRAD, France	Session 6.3: Agricultural Use of Soil Amendment, Fertilization and Microbe's Association Session moderator: Dr. Fatima Zahra Briache, UM6P, Morocco sciforum-116750: Optimization of Nitrogen Fertilization for Sustainable Water and Soil Management Using Agronomic Experimentation and Statistical Analyses. By Houria Dakak, INRA, Morocco	

Day 2	May 21, 2025			
Where ?	Room A	Room B	Room C	Room D (Virtual session)
	<i>International Commission on Irrigation and Drainage, ICID</i> - sciforum-110365: Using AI for Optimizing Irrigation in Salt-Affected and Arid Lands. By Souad El Hajjaji, Mohammed V University, Morocco - sciforum-117810: Enhancing Tomato Yield in Greenhouse Conditions: Biochar's Role in Improving Morpho-Physiological Traits and Water Productivity under Deficit Irrigation. By Abdulrasoul Alomran, King Saud University, Saudi Arabia	- sciforum-116837: Salt-tolerant Crops as Sustainable Feed: Assessing Nutritional Value and Greenhouse Gas Emissions in Ruminants. By Ihssane Mnaouer, UM6P, Morocco - sciforum-117216: Sustainable Greenhouse Cooling Systems in Morocco: Comparative Assessment of Earth-to-Air Heat Exchangers and Rock-Bed Systems for Microclimate Optimization and Yield Enhancement. By Fatima Ezzahra Allali, Ibn Zohr University, Morocco	- sciforum-116648: Effect of Soil Amendments and Biostimulants Application on alleviating Salinity Stress in Quinoa plants under Greenhouse Conditions. By Mohammad Redouane Bourhim, Cadi Ayyad University, Morocco - sciforum-116675: Unlocking Climate Adaptation Potential Tepary Beans (<i>Phaseolus acutifolius</i> A. Gray) Through Breeding. By Karima Lazaar, UM6P, Morocco	- sciforum-116800: Using Microbial Biotechnology to Improve Salt Tolerance in Alfalfa. By Raja Ben-Laouane, Moulay Ismail University, Morocco - sciforum-119555: Bacterial Communities in Quinoa: Environmental and Genetic Factors Shaping Endophytic and Rhizosphere Composition. By Isaac Maestro-Gaitán, Universidad Autónoma de Madrid, Spain - sciforum-116838: Salinity Legacy Effects on Soil Microbial Physiology and Community Composition. By Bas Bruning, SALT doctors, Netherlands
15:30-16:30	Session 6.4: Agricultural Use of Soil Amendment, Fertilization and Microbe's Association Session chair: Pr. Dennis Ashilenje, UM6P, Morocco - sciforum-116757: Organic Amendments to Restore Sandy Soils to Produce Organic Vegetables Under Arid Conditions. By Khalid Azim, INRA, Morocco - sciforum-116846: Combined Effect of Irrigation Regimes and NPK Fertilizer Rates on Soil Health and Maize Performance in Marginal Lands. By Mbarek El-Guirah, UM6P, Morocco - sciforum-116853: Impact of Integrated Use of Mineral Fertilizers, Compost and Irrigation with Treated Wastewater on Crop Yield and Nutrition in Arid Soil. By Khaled D. Alotaibi, King Saud University, Saudi Arabia - sciforum-115928: Optimizing Tomato Resilience to Salt Stress Using Compost, Arbuscular Mycorrhizal Fungi, and Their Synergistic Effects. By Fadoua Mekkaoui, Hassan II University, Morocco	Session 3.4: Crop Responses to Salinity and Water Stress Session chair: Pr. Berhanu Ansalu Fenta, UM6P, Morocco - sciforum-116997: Salt-induced Nutritional Modifications in Salt Tolerant Crops and Halophytes. By Giulia Atzori, National Research Council of Italy, Italy - sciforum-118000: Influence of Natural Salinity in Arid Regions on Endophytic Contamination in Date Palm In Vitro Culture. By Mohamed Laaguidi, Moulay Ismail University Meknes, Morocco - sciforum-116815: Phenotyping of Barley Germplasms Under Saline Conditions. By Maryam Gbibar, UM6P, Morocco - sciforum-116637: Harnessing Synergies Between Biostimulants and Organic Amendments to Mitigate Drought in Quinoa Varieties (<i>Chenopodium quinoa</i>) Cultivated Under Field Conditions. By Salma Toubali, UM6P, Morocco	Session 2.4. Salinity Mapping and Characterization Session chair: Dr. Krishna Devkota, ICARDA, Morocco - sciforum-118052: Cartographie Prédictive De La Conductivité Électrique Du Sol Comme Indicateur De La Salinité Du Sol Dans La Zone De Brakna, Mauritanie. By Mohamed Mahmoud Mohamed Abidine, Université de Nouakchott, Mauritania - sciforum-116267: Use of Multispectral Sentinel-2 Satellite Imagery, Topography and Post-rainfall Multispectral Proxies Derived from Planetscope Imagery to Generate the First Accurate Soil Salinity Map in the Semi-arid Region of Sehb El Masjoune, Southern Morocco. By Jamal-Eddine Ouzemou, UM6P, Morocco - sciforum-118734: Unveiling Halotolerant Bacteria in Ecosystems of Southern Morocco Holds Potential for Sustainable Agriculture. By Bulbul Ahmed, UM6P, Morocco	Session 5.2: Agricultural Water Management in Marginal Environment Session moderator: Dr. Said Khourchi, UM6P, Morocco - sciforum-119421: Diagnosis of the Upstream Carob Sector in Morocco for Sustainable Development in the Context of Climate Change. By Hafida Zaher, National Forestry School of Engineers, Morocco - sciforum-116857: Wastewater Treatment and Sustainability in Irrigation: Evaluating the Performance of the Skhirat Wastewater Treatment Plant for Agricultural Reuse. By Naima Lahlouhi, Mohammed VI University, Morocco - sciforum-107293: Impact of Regulated Deficit Irrigation (RDI) On Pistachio (<i>Pistacia vera</i> L.) Nuts Quality. By Walid Abidi, Regional Center of Agricultural Research of Sidi Bouzid, Tunisia - sciforum-116856: Assessing the Impact of Policies on the Water-energy-food-climate Nexus in the Souss-massa Basin: An Integrated Approach Using System

Day 2	May 21, 2025			
Where ?	Room A	Room B	Room C	Room D (Virtual session)
				Dynamics: By Ayoub Guemouria, UM6P, Morocco
16:30-16:45	Coffee break			
16:45-17:30	Poster session (evaluation of posters, all presenters should be close to their poster to present them to the evaluation committee)			
17:30	Transport of participants from the conference venue (ASARI-UM6P Research center) to Laayoune City			
19:30	Transport of invited participants from Laayoune city to Gala dinner (Desert Al Massira Bivouac)			
20:30	Gala Dinner			

Day 3	May 22, 2025			
Where ?	Room A	Room B	Room C	Room D (Virtual session)
09:00	Transport of participants from Laayoune City to the conference venue (ASARI-UM6P Research center)			
10:00-11:00	Session 4.2: Breeding and Genetic Improvement of Crops Under Marginal Environments Session chair: Dr. Shabbir A Shahid, <i>Kuwait Institute for Scientific Research (KISR), Kuwait</i> Keynote speech: <i>Climate-Smart Plant Breeding: Leveraging Nuclear Techniques and Innovative Approaches for Marginal Environments.</i> Dr. Fatma Sarsu, International Atomic Energy Agency (IAEA), Austria - sciforum-124555: Understanding the Interaction of Above and Below Ground Traits in Faba Bean Under Different Water Regimes: a field study. By Zeineb Dagdad, ICARDA, Morocco - sciforum-109617: Differential Expression of <i>CmTCP15</i> and <i>CmGDSL</i> in Non-Climacteric Melon during Ripening. By Mohamed Zarid, Université Ibn Tofail, Morocco - sciforum-115608: Chromosome-level Genome Assembly and Functional Annotation of <i>Argania spinosa</i>. By Slimane khayi, INRA, Morocco Slimane khayi, INRA, Morocco	Session 6.5: Agricultural Use of Soil Amendment, Fertilization and Microbe's Association Session chair: Dr. Khalid Azim, <i>INRA, Morocco</i> - sciforum-108188: Enhancing Soil Amendment and Boosting the Morphological, Physiological, and Agronomic Performance of Sweet Basil Through Compost Application. By Majda Ouelid Lhaj, University Hassan II, Morocco - sciforum-115810: Arbuscular Mycorrhizal Fungi and Compost Promoting Effects on Argan Seedlings Performances Under Drought Stress. By Boujemaa Fassih, Cadi Ayyad University, Morocco - sciforum-115241: Microbial Solutions for Resilient Agriculture: Exploring the Diversity and Functional Roles of Bacteria in <i>Vachellia tortilis</i> subsp. <i>raddiana</i> under Salinity and Drought Stress. By Mohamed Hmini, Ibn Zohr University, Morocco - sciforum-119230: Profiling and Functional Characterization of Microbes from the Grana Ecosystem. By Olabode Charles Samuel, UM6P, Morocco	Session 3.5: Crop Responses to Salinity and Water Stress Session chair: Pr. Abdelaziz Niahhyane, <i>UM6P, Morocco</i> - sciforum-116792: Effect of Salt Stress on Multiple Grass Species: A Systematic Review and Meta-analysis. By Abdel Aziz Hassane Sidikou, UM6P, Morocco - sciforum-116716: Root Development Response to Water Scarcity in Moroccan Barley Landraces: Field Auger Method. By Rajae Mesbahi, UM6P, Morocco - sciforum-112897: Integrated Effect of Saline Water Irrigation and Phosphorus Fertilization Practices on Wheat (<i>Triticum Aestivum</i>) Growth, Productivity, Nutrient Content and Soil Properties Under Dryland Farming. By Hamza Bouras, INRA, Morocco	Session 10.3: Climate Change and Sustainability Aspects Session moderator: Dr. Said Khourchi, <i>UM6P, Morocco</i> - sciforum-106563: Adapting Agriculture in North Africa: Mitigating Climate Change Impacts and Enhancing Resilience. By Azdem Driss, Mohammed V University, Morocco - sciforum-112866: Role of Microalgae in Carbon Sequestration and Climate Change Mitigation. By Khadija El Moustaqim, Ibn Tofail University, Morocco - sciforum-116231: Evaluation of the Risk of Non-datedness of <i>Quercus suber</i> L. in Morocco. By Fatima Ezzahra Assemar, Mohammed V University, Morocco - sciforum-112204: Impact of Climate Change on Agricultural Productivity Growth and Its Policy Implication for Sustainable Agricultural Transformation in Ethiopia. By Kusse Haile, Mizan Tepi University, Ethiopia
11:00-11:30	Coffee break			

Day 3	May 22, 2025				
Where ?	Room A	Room B	Room C	Room D (Virtual session)	
11:30-12:30	Session 2.5: Salinity Mapping and Characterization Session chair: Dr. Shabbir A Shahid, Kuwait Institute for Scientific Research (KISR), Kuwait - sciforum-116266: Integration of PRISMA Hyperspectral Imagery Derived-information With Optimal Machine Learning Techniques to Produce Soil Salinity and Sodicty Maps with a Higher Degree of Accuracy: Study Case of Sehb El Masjoune, A Moroccan Semi-Arid Agricultural Region. By Jamal-Eddine Ouzemou, UM6P, Morocco - sciforum-116851: Key Soil Property Assessment Using Very High-Resolution Remotely Sensed Data for Precise Fertilizer Strategies and Soil Regeneration in Saline - Arid Regions. By Dennis Shiborje Ashilenje, UM6P, Morocco - sciforum-107354: Dynamic Large-scale Mapping Approach of Soil Salinity Using Soil Formation Factors and Hydrological Indices in Pedological and Non-pedological Regions. By Jamal Hallam, INRA, Morocco - sciforum-116662: Monitoring of Soil Salinity Using 3D Feature Space Models and Machine Learning Algorithms: A Case Study of Sehb El Msjoune Semi-Arid and Arid Area, Morocco. By Aiman Achemrk, UM6P, Morocco	Session 10.4: Climate Change and Sustainability Aspects Session chair: Dr. Khalid Azim, INRA, Morocco - sciforum-116599: Effect of Feeding Different Forage Grasses Grown in Saline Soil on Fattening Performance, Carcass Characteristics, Meat Quality and Economic Analysis of Awassi Sheep in Qatar State. By Abubakr Sayed Ali, Ministry of Municipality, Qatar - sciforum-113191: Applying Remote Sensing and Reanalyzed Data to Study Precipitation Variability in Semi-Arid Agrarian area in North Africa. By Younes Dahhane, UM6P, Morocco - sciforum-114954: Valorization of <i>Vachellia tortilis</i> subsp. <i>Raddiana</i>: A Sustainable Approach to Climate Change Challenges. By Brahim Alayoua, Ibn Zohr University, Morocco - sciforum-116888: Assessing Soil Loss and Erosion Risk in Semi-Arid Watershed: Current and Future Projections. By Houda Lamane, Hassan II University, Morocco	Session 3.6: Crop Responses to Salinity and Water Stress Session chair: Pr. Abdelaziz Nilahyane, UM6P, Morocco Keynote speech: Climate Resilient Strategies for Sustainable Crop Production in Arid Environments Pr. Muhammad Farooq, Sultan Qaboos University, Oman - sciforum-117874: Investigating the Impact of Increasing Saline Irrigation on <i>Tetragonia tetragoniolides</i> (Pallas) Kuntz. Grown on Different Soil Types. By Giulia Atzori, National Research Council of Italy, Italy - sciforum-116339: Emerging Olive Cultivars for SHD Orchards Under Salt Stress: Comparing Lecciana, Coriana, and Siquitita with Commercial Standards. By José Casanova-Gascón, University of Zaragoza, Spain	Session 6.6: Agricultural Use of Soil Amendment, Fertilization and Microbe's Association Session moderator: Dr. Abdel Aziz Hassane Sidikou, UM6P, Morocco - sciforum-116830: Assessment of <i>Tenebrio molitor</i> Protein Hydrolysates as biostimulants: Enhancing Tomato Growth. By Fatima Tayi, MAScIR/UM6P, Morocco - sciforum-116875: Soil Fertility and Heavy Metal Risk Assessment Under Sewage Sludge Amendment. By Achkir Abdelmajid, Mohammed V University, Morocco - sciforum-116825: A Case Study on the Role of Biofertilizers in Reducing Synthetic Fertilizer Dependency in Arid Irrigated Agriculture System. By Samar Attaher, ICARDA, Egypt - sciforum-116762: Soil Fertility and Heavy Metal Risk Assessment Under Sewage Sludge Amendment. By Achkir Abdelmajid, Mohammed V University, Morocco	

Day 3	May 22, 2025			
Where ?	Room A	Room B	Room C	Room D (Virtual session)
12:30-13:30	Session 7.2: Best Cropping Practices to Cope with Abiotic Stress Session chair: Pr. Ahmed Laamrani, <i>UM6P, Morocco</i> Keynote speech: Agronomic Innovations for Enhancing Productivity and Resilience of Dryland Production Systems <i>Dr. Mina Devkota, ICARDA, Morocco</i> - sciforum-123189: Role of Arbuscular Mycorrhizal Fungi and PGPR in Mediating Water Stress Tolerance in Quinoa Seeds by Modulating Phenolic Compounds, Stress Markers, Osmolyte Accumulation and Antioxidant Defense. By Wissal Benaffari, <i>Cadi Ayyad University, Morocco</i> - sciforum-116588: Combination of Seed Priming, Soil Amendments and Biostimulants Enhance Tolerance level to Salinity Stress in Quinoa plants under Greenhouse Conditions. By Cherki Ghoulam, <i>UM6P, Morocco</i> - sciforum-113311: Effect of Tillage and Mulching on Water Productivity of Barley under different Irrigation and Nitrogen Application Rates. By Habibah Soud Al-Menaie, <i>KISR, Kuwait</i>	Session 5.3: Agricultural Water Management in Marginal Environment Session chair: Pr. Jose Luis Araus Ortega, <i>University of Barcelona, Spain</i> Keynote speech: Water for Food, Water for Life: The Drylands Challenges <i>Pr. Vinay Nangia, ICARDA</i> - sciforum-116639: Theoretical Optimization of Polymer-Organic Pollutant Interactions for Wastewater Treatment. By Taoufik Gouri, <i>Ibn Zahr University, Morocco</i> - sciforum-106302: Calibration of Soil Moisture Sensors (ECH2O-5TE) in Hot and Saline Soils with New Empirical Equation. By Abdulrasoul Alomran, <i>King Saud University, Saudi Arabia</i> - sciforum-116312: Dessalement Des Eaux Saumâtres Par Procédé Électromagnétique Une Alternative Prometteuse Pour La Production D'eau Pour L'irrigation. By Abdelbast Karbal, <i>Hassan II University of Casablanca, Morocco</i>	Session 3.7: Crop Responses to Salinity and Water Stress Session chair: Dr. Didier Bazile, <i>CIRAD, France</i> - sciforum-116774: Potential lipid biomarkers of drought tolerance in contrasted <i>Argania spinosa</i> L. ecotypes. By Karim Rabeh, <i>INRA, Morocco</i> - sciforum-116861: Biometric Parameters of Date Palm (<i>Phoenix dactylifera</i> L.) Vitroplants and Properties of the Soil Treated with Biofertilizers/Biostimulants Evolved Post Five Years of Field Drought. By Fatima-Zahra Akenous, <i>Cadi Ayyad University, Morocco</i> - sciforum-116337: Salt Stress in Next-Generation Grapevine Rootstocks: M-series versus Commercial Standards. By José Casanova-Gascón, <i>University of Zaragoza, Spain</i> - sciforum-116759: Organic Amendments to Mitigate Saline Water Stress on Organic Green Bean (<i>Phaseolus vulgaris</i> L.) in an Arid Climate. By Khalid Azim, <i>INRA, Morocco</i>	Session moderator: Dr. Abdel Aziz Hassane Sidlikou, <i>UM6P, Morocco</i> Session 8: Crop Valorization and Value Chain Keynote speech: sciforum-116818: Salt marsh gastronomy in the United Arab Emirates: seAing (and eating) is believing <i>Dr. Dionysia Lyra, International Center for Biosaline Agriculture, UAE</i> Session 9: Food-water-energy nexus in marginal environment - sciforum-110368: Advancements in Biosensors and Artificial Intelligence for Detecting Food Contaminants: Ensuring Global Food Safety and Sustainability. By Rabab Allili, <i>Mohammed V University, Morocco</i> Session 11.1: Socio-economic And Policy Aspects Related to Agriculture in Saline and Arid Land Agriculture - sciforum-117938: Changing Demographics in Arid Farms: How the Legacy Institutional Arrangements Need to be Reconfigured?. By Aneela Afzal, <i>PMAS Arid Agriculture University Rawalpindi, Punjab, Pakistan</i> - sciforum-116943: Surveying Resilience: Agricultural Strategies Against Salinization in Southern Tunisia. By Sihem Ben Ali, <i>Arid Land Institute of Medenine, Tunisia</i>
13:30-14:30	Lunch break			

Day 3	May 22, 2025			
Where ?	Room A	Room B	Room C	Room D (Virtual session)
14:30-15:30	Session 3.8: Crop Responses to Salinity and Water Stress Session chair: Pr. Ahmed Laamrani, <i>UM6P, Morocco</i> Keynote speech: <i>Crop Suitability Under Open-Field and Protected Farming Systems in Arid Drylands using APSIM and AquaCrop Models</i> Dr. Krishna Devkota, <i>ICARDA, Morocco</i> - sciforum-115124: Enhancing Salinity Tolerance of Cash Crop Halophytes through Redox Seed Priming: Effectiveness and Mechanistic Insights for Saline Agriculture. By Abdul Hameed, <i>University of Karachi, Pakistan</i> - sciforum-114437: Seasonal and Diurnal Fluctuations in the Metabolome of <i>Haloxylon Salicornicum</i> in a Desert Environment. By Hasna Ezzine, <i>KAUST, Saudi Arabia</i> - sciforum-116335: Self-Rooted Hazelnut Cultivars Under Salt Stress: A Multi-Parameter Assessment of Tolerance Mechanisms and Adaptation. By Xavier Rius Garcia, <i>University of Zaragoza, Spain</i>	Session 11.2: Socio-economic and Policy Aspects Related to Agriculture in Saline and Arid Land Agriculture Session chair: Pr. Jose Luis Araus Ortega, <i>University of Barcelona, Spain</i> - sciforum-116814: Navigating Farmers Perceptions and Adaptive Strategies to Water Salinity and Scarcity in Morocco: In Depth Socio-economic Interview Analysis. By Amina Bouymajane, <i>UM6P, Morocco</i> - sciforum-116233: Application of Portable X-Ray Fluorescence (pXRF) in Plant Analysis for Nutritional Assessment and Environmental Hazard Evaluation in Tropical Regions. By Meryem El Mellouki, <i>UM6P, Morocco</i>	Session 6.7: Agricultural Use of Soil Amendment, Fertilization and Microbe's Association Session chair: Dr. Didier Bazile, <i>CIRAD, France</i> - sciforum-116824: Impact of Irrigation and Fertilizers on Forage Sorghum Production under Saline Conditions. By Manyam Gbibar, <i>UM6P, Morocco</i> - sciforum-116852: Arbuscular Mycorrhizal Fungi and Plant Growth Promoting Rhizobacteria Modify the Content of Phenolic Compounds, Osmolytes and Stress Markers in Quinoa Seeds Under Water Stress. By Wissal Benaffari, <i>Cadi Ayyad University, Morocco</i> - sciforum-116063: Berseem Clover (<i>Trifolium alexandrinum</i>) Averts Surface Salinization of an Alkaline Soil to Enhance Root Associated Phosphorus Availability. By Zineb Imkis, <i>UM6P, Morocco</i>	Session 7.3: Best Cropping Practices to Cope with Abiotic Stress Session moderator: Dr. Fatima Zahra Briache, <i>UM6P, Morocco</i> - sciforum-108385: Selenium-Mediated Enhancement of Growth and Salt Stress Tolerance in Open-Field Cultivated Tomatoes. By Fedi Hajlaoui, <i>Regional Centre of Agricultural Research of Sidi Bouzid, Tunisia</i> - sciforum-116870: Effect of Bio-fertilization And Pedo-climatic Conditions on Chickpea Nodulation, Grain Yields, And Seed Protein in a Mediterranean Context: A Meta-analysis Approach. By Amira Hachana, <i>Carthage University, Tunisia</i> - sciforum-116404: Importance of Faba Bean Intercropping Practices in Almond Orchard Under Moroccan Climate Conditions. By Oussama Moussaoui, <i>Sultan Moulay Slimane University, Morocco</i> - sciforum-116799: Enhancing <i>Rosa damascena</i> Cultivation Through Grafting on <i>Rosa indica</i> Major Rootstocks: A Strategy for Improved Growth, Yield, and Quality Under Semi-Arid and Saline Conditions. Soumia EL Malahi, <i>Ibn Zahr University, Morocco</i>
15:30-16:30	Session 3.9: Crop Responses to Salinity and Water Stress Session chair: Pr. Dennis Ashilenje, <i>UM6P, Morocco</i> - sciforum-106570: Exploring the Viability of Coastal Sabkha Soils for Halophytic Crop Production: A Case Study from the Red Sea Coast of Saudi Arabia. By Rebekah Waller, <i>KAUST, Saudi Arabia</i> - sciforum-114156: How does blue panicgrass (<i>Panicum antidotale</i> Retz.) respond to salinity	Session 7.4: Best Cropping Practices to Cope with Abiotic Stress Session chair: Pr. Irfan Afzal, <i>UM6P, Morocco</i> - sciforum-118534: Optimizing the Germination and Cultivation of Edible Salt-tolerant Plants for Sustainable Saline Agriculture. By Luísa Custódio, <i>University of Algarve, Portugal</i> - sciforum-118833: Intercropping with Faba Bean Improves Mineral Nutrition, Growth,	Session 1.3: Salinity Problem: Global State of Art - sciforum-118595: Groundwater Salinization in Morocco: Origins, Processes, and Impacts. By Lhoussaine Bouchaou, <i>Ibn Zohr University, Morocco</i> Session 3.10: Crop Responses to Salinity and Water Stress - sciforum-110654: Impact of Water Stress and Foliar Boron Spraying (B) On the Agro-	

Day 3	May 22, 2025			
Where ?	Room A	Room B	Room C	Room D (Virtual session)
		stress?. By Ayoub El Mouttaqi, <i>UM6P, Morocco</i> - sciforum-116336: Salt Stress in Self-Rooted Almonds: A Comprehensive Analysis for Next-Generation High-Density Orchards. By Xavier Rius Garcia, <i>University of Zaragoza, Spain</i> - sciforum-116761: Enhancing Wheat Drought Tolerance and Soil Fertility through the Synergistic Application of Controlled-Release Vitreous Fertilizer and Arbuscular Mycorrhizal Fungi. By Nizar El Mazouni, <i>Cadi Ayyad University, Morocco</i>	And Yield of Wheat Under the Combined Stress of Drought and Phosphorus Limitation. By Cherki Ghoulam, <i>UM6P, Morocco</i> - sciforum-120465: Exploring the Potential Effect of Red Algae (<i>Gelidium sesquipedale</i>) Extract as a Biostimulant on Zucchini (<i>Cucurbita pepo</i> L.) Growth and Development. By Chaimae Rami, <i>UM6P, Morocco</i> - sciforum-116575: Chitosan Based Seed Coatings Effect on Chickpea (<i>Cicer arietinum</i> L.) Plant Growth. By Mohamed Saou, <i>UM6P, Morocco</i>	physiological Parameters of the Olive (<i>Olea Europea</i> L.) Cultivar Arbequina. By Walid Abidi, <i>Regional Center of Agricultural Research of Sidi Bouzid (CARRA), Tunisia</i> - sciforum-110080: Effects of Selenium on Tomato Growth and Water Relation in Different Salinity Level Conditions. By Rawaa Akrimi, <i>Regional Center of Agricultural Research of Sidi Bouzid (CARRA), Tunisia</i> - sciforum-116346: Evaluating the Performance of <i>Panicum antidotale</i> in Saline Environments: The Role of Planting Methods and Organic Amendments. By Sanaa Malki, <i>UM6P, Morocco</i>
16:30-17:00	Coffee break			
17:00-18:00	Closing ceremony and awards			

POSTERS

Session 2: Salinity Mapping and Characterization

1. sciforum-108079: Assessment of Soil Spatial Variability in Agricultural Ecosystems Using Multivariate Analysis and Geostatistical Approach: A Case Study of the Mnasra Region, Gharb Plain, Morocco. By **Hatim Sanad**, *Hassan II University, Morocco*

Session 3: Crop Responses to Salinity and Water Stress

2. sciforum-107134: Sustainable Agroecological Solutions Using Salt-Tolerant Plants and Brine Irrigation in Arid Regions. By **Hamza khassali**, *Sand to green, France*
3. sciforum-116655: Synergistic Impacts of Drought, Salinity, And Vapor Pressure Deficit (VPD) on Plant Growth and Physiology. By **Chaimae Rami**, *UM6P, Morocco*
4. sciforum-116840: Morphophysiological and Biochemical Responses of *Moringa oleifera* to Salinity During Early Growth. By **Said Labbassi**, *Cadi Ayyad University, Morocco*
5. sciforum-118916: Impact of Saline Irrigation on the Growth and Yield of Durum Wheat (cv. Faraj) in Sandy and Clay Soils. By **Khadija Manhou**, *Ibn Tofail University, Morocco*
6. sciforum-120652: Effect of Salinity Stress on the Growth of Sage (*Salvia officinalis* L.) in Interaction with Halophytic Plants. By **Yassine Mouniane**, *Ibn Tofail, Morocco*
7. sciforum-119483: Research on Agronomic Behavior of Quinoa Cultivation in Cabo Verde. By **Jacques De Pina Tavares**, *INIDA, Cabo Verde*
8. sciforum-124964: Biochar Addition to Saline-Sodic Soil Enhanced *Brassica* spp. Seedling Emergence. By **Unius Arinaitwe**, *South Dakota State University, USA*

Session 4: Breeding and Genetic Improvement of Crops Under Marginal Environments

9. sciforum-117988: Selecting and Inbreeding *Salicornia* spp. to Develop an Oilseed crop for Arid and Saline Environments of the Middle East. By **Nataliya Kovalchuk**, *KAUST, Saudi Arabia*
10. sciforum-116743: Identification of Resistance Sources to STB In Spring Bread Wheat of ICARDA Germplasm in Morocco. By **Fatima zahra Mssilea**, *Mohammed V University, Morocco*

Session 5: Agricultural Water Management in Marginal Environment

11. sciforum-116681: DFT Analysis and Optimization of the Conformers of Hemi-mellitic Acid: Foundations for the Management of Organic Pollutants. By **Taoufik Gourt**, *Ibn Zohr University, Morocco*
12. sciforum-123197: Individual Preferences for Non-Conventional Water Resources for Irrigation: The Case of the Seawater Desalination Plant of Chtouka Ait Baha (Southwest Morocco). By **Ahmed Amghar**, *Ibn Zohr University, Morocco*
13. sciforum-123499: Evaluating Environmental Trade-Offs in Wastewater Treatment: A Life Cycle Assessment Approach. By **Souad El Hajjaji**, *Mohammed V University, Morocco*
14. sciforum-125067: Valorization of Local Plants and Agricultural Waste for Sustainable Irrigation Water Treatment: A Mini-Review. By **Said Meftah**, *Hassan First University, Settat, Morocco*
15. sciforum-125116: Towards Improved Water Productivity of Maize Cultivation in the Souss-massa Region: Evaluating the FAO AquaCrop Model's Performance in Simulating Canopy Cover, Soil Moisture, and Biomass. By **Mohamed-Amine Benaly**, *UM6P, Morocco*

Session 6: Agricultural Use of Soil Amendment, Fertilization and Microbe's Association

16. sciforum-114580: Developing a Biofertilizer Using Saprophytic Fungi and Cyanobacteria for Saline Soil Restoration in Laayoune regions. By **Malak Mentagui**, *University Euromed of Fez, Morocco*
17. sciforum-116719: Effects of Physicochemical Characteristics of Two Soils on Agro-Morphological Traits of Two Chickpea Varieties (*Cicer arietinum* L.). By **Sara Fahde**, *ICARDA, Morocco*
18. sciforum-116747: Pedological Effect of Soils from Different Regions in Morocco on the Performance of Chickpea (*Cicer arietinum* L.) Varieties in the Absence and Presence of Their Rhizobial Partner. By **Sara Fahde**, *ICARDA, Morocco*
19. sciforum-116755: Resistance of *Bacillus velezensis* Endospores to Multiple Abiotic Stresses for Biostimulant Formulations. By **Khalid Lemrhari**, *UM6P, Morocco*
20. sciforum-116765: Rhizobium-mediation for Improving Drought Tolerance in Spring Bread Wheat (*Triticum aestivum*). By **Lamyae Ed-Daoudy**, *Mohammed V University, Morocco*
21. sciforum-116785: Effect of Application Method and Concentration of Plant-based Biostimulants on the Germination and Growth of Barley and Beans Under Saline Conditions. By **Sfia Baha**, *UM6P, Morocco*
22. sciforum-116801: Impact of Microbial Biostimulants on Crop Growth and Productivity Under Drought and Saline Conditions. By **Hajar Salah-Eddine**, *UM6P, Morocco*

23. sciforum-116831: Unraveling Microbial Adaptation and Biocontrol Potential in Arid Ecosystems: A Genomic Approach to Sustainable Agriculture. By **Omar Nejari**, *UM6P, Morocco*
24. sciforum-116847: Potential Effect of Hydrophilic Polymer and Manure on Four Tree Species and Soil Water Retention in Desert Conditions of Southern Morocco. By **Mbarek El-Guirah**, *UM6P, Morocco*
25. sciforum-123393: Environmental Impact Assessment of Using Co-composted Olive Mill Wastewater Through Life Cycle Assessment (LCA). By **Souad el Hajjaji**, *Mohammed V University, Morocco*
26. sciforum-110645: Study of the eEffect Of Amendments Adopted in the Agricultural Lands Surrounding the Sabkha of Sed El Mesjoun – Morocco, on Soil Quality. By **Soukaina El Hasini**, *Mohammed V University, Morocco*

Session 7: Best Cropping Practices to Cope with Abiotic Stress

27. sciforum-109113: Effect of Salinity on Germination and Growth Parameters of Durum Wheat: A Case Study of the Gharb Plain, Morocco. By **Khadija Manhou**, *Ibn Tofail University, Morocco*
28. sciforum-116806: Effect of Crop Rotation on Soil Health and Productivity of Irrigated Maize Under Salt-affected Soils. By **Mbarek El-Guirah**, *UM6P, Morocco*
29. sciforum-116842: The Role of Plant Growth-Promoting Rhizobacteria and Mycorrhizal Fungi in Boosting Drought Resilience in Tomatoes and Enhancing Antioxidant Metabolism and Osmolyte Accumulation. By **Fatima-Ezzahra Soussani**, *Cadi Ayyad University, Morocco*
30. sciforum-124876: Morocco's Current Research Status on the Application of Treated Water in Agriculture Under Conditions of Water Scarcity. By **Maha Zendir**, *Institute of Agronomy and Veterinary Medicine Hassan II, Morocco*

Session 8: Crop Valorization and Value Chain

31. sciforum-124244: Production of High Added Value Biofertilizers from Tomato Waste Through Composting in an Optimized Bioreactor. By **Nidal Zrikam**, *UM6P, Morocco*

Session 9: Food-water-energy Nexus in Marginal Environment

32. sciforum-116718: Impact of Climate-Smart and Water-Saving Frontier Agriculture on the WEFE Nexus in Arid Mediterranean Regions. By **Bouchra Darkaoui**, *UM6P, Morocco*

Session 10: Climate Change and Sustainability Aspects

33. sciforum-113571: Wheat Yield Gap Quantification in Morocco: Assessing the Impact of Precipitation, Temperature, And Soil Moisture. By **Lahcen Ousayd**, *UM6P, Morocco*
34. sciforum-118612: *Vachellia tortilis* subsp. *raddiana*: A Natural Asset for Climate Change Adaptation in Arid Zones. By **Brahim Alayoua**, *Ibn Zohr University, Morocco*

Session 11: Socio-economic and Policy Aspects Related to Agriculture in Saline and Arid Land Agriculture

35. sciforum-121268: Valorisation Des Plantes Halophytes Pour Lutter Contre La Dégradation Des Terres En Zones Arides Et Salines. By **Lamiaa Ratib**, *Faculté des Sciences et Techniques, Settat, Morocco*



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