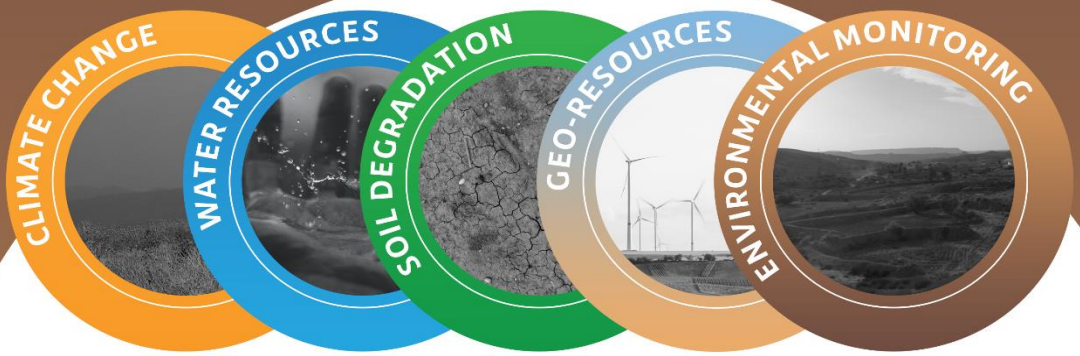
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SWDCC 2022

International Conference on:

"Soil & Water Resources Management for Combating Desertification in Drylands under Climate Change"



14 - 17 June 2022.
Djerba Island. TUNISIA

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The International Conference on:

Soil and Water resources management for Combating Desertification in Drylands under Climate Change (SWDCC 2022)

14-17 June 2022. Djerba Island, Tunisia.

PROGRAM

GENERAL AGENDA

Hour \ Day	June 13th	June 14th	June 15th	June 16th	June 17th
08:00-08:30		Registration			**Departure to Field Trip** (Optional)
08:30-09:00					
09:00-09:30					
09:30-10:00					
10:00-10:30		Opening	Session 2: Climate Change	Session 4: Environmental Monitoring	**Field Trip** (Jeffara Plain, Ben Khedache Mountains, Traditional Water Harvesting Systems, Troglodytes, etc.)
10:30-11:00					
11:00-11:30		Coffee Break	Coffee Break	Coffee Break	
11:30-12:00					
12:00-12:30		Special Session: FAO	Special Session: DGACTA/GIZ	Special Session: ACSAD	
12:30-13:00					
13:00-13:30					
13:30-14:00		Lunch Break	Lunch Break	Lunch Break	**Tour of IRA headquarters** Award Ceremony of the 1st Prize of Prof. Khattelli for the Promotion of Science and Innovation, Celebration of the UNCCD World Day to Combat Drought and Desertification
14:00-14:30					
14:30-15:00					
15:00-15:30	Arrival & Registration	Session 1: Water Resources	Session 3: Soil Resources	Session 5: Georesources	
15:30-16:00					
16:00-16:30					
16:30-17:00		Tea Break	Tea Break	Tea Break	
17:00-17:30		Session 1: Water Resources	Session 3: Soil Resources	Closing Ceremony	
17:30-18:00					
18:00-18:30		Poster Session (Topics 1-2-3)	Poster Session (Topics 4-5)		Return to the hotel
18:30-19:00					

PROGRAM

DAY 1: 14 June 2022

07h00-09h00: Registration
09h00-11h00: Opening Ceremony
11h00-11h30: Coffee Break
11h30-13h00: Special Session: FAO (see details)
13h00-14h30: Lunch Break
14h30-18h00: Session 1: Water Resources Mobilization and Management

Chair: **Dr. Maki Abdourrahman**, FAO
Co-Chair: **Dr. Rachid Boukchina**, IRA
Rapporteur: **Dr. Rahma Ines Zoghlami**, IRA

14h30-14h50: Keynote – Dr. Iheb Jnad, ACSAD, Syria, *The assessment of climate change impact on Water resources in the Arab region*
14h50-16h30: Papers

- *Contribution of Geospatial Tools to Rainwater Management and Flooding Risk Reduction in the Southeast of Tunisia.* **Abdelli F.**
- *Current State of Pomegranate (Punica Granatum L.) Fertilization in the Tunisian Coastal Region.* **Ouni A.**, S. Abboud, S. Dbara, and M. Mars.
- *Vegetable Crops Production Under Irrigation with Magnetic Treated Low-Quality Water in Arid Tunisia.* **Elmokh F.,** I. Jamil, M. Chammakhi, and K. Nagaz.
- *Managing Salinity for Sustainable Agricultural Production in Salt-Affected Soil of Irrigated Drylands.* **Devkota M.** and K. Devkota.
- *Efficient Adsorption of Dibutyl Phthalate from Aqueous Solution by Chitosan Extracted from Local Crab Shells.* **Mkaddem H.** and H. Ben Amor.
- *Quantification and Analyses of Wheat Evapotranspiration for Improving Water Productivity in Arid Regions.* **Gamal R.,** V. Nangia, and S. Irmak.

16h30-17h00: Tea Break
17h00-17h20: Keynote – Dr. Vinay Nangia, ICARDA, Morocco**,** *Water for Food, Water for Life: The Drylands Challenge*
17h20-18h00: Papers

- *Water Scarcity Conditions Improve Peach Fruit Quality Traits in Warm and Arid Areas.* **Toumi I.**, O. Zarrouk, and K. Nagaz.
- *Optimization of the Purification Efficiency of Shredded Dry Palms in the Treatment of Urban Wastewater by Infiltration-Percolation.* **Eturki S.**, M. Ben Saed, F. Souid, F. Hajjaji, and M. Ouessar.
- *Isotopic Signature (δ18O, δ2H) and Self-Organizing Maps for Identifying Contamination Processes in Arid Aquifer: Jerba Island Case Study (South-eastern of Tunisia).* **Souid F.**, M. Hamdi, F. Khalfalli, A. Kharroubi, and M. Moussa.
- *Les enjeux de l'oléiculture du milieu aride tunisien face aux changements climatiques.* ***Ben Rouina Y.****, F. Ben Rejeb, and B. Ben Rouina*

18h00-19h00: Poster presentations: Topics: 1 & 2

PROGRAM

DAY 2: 15 June 2022

Session 2: Climate Change: Vulnerability and Adaptation in Drylands

Chair: **Prof. Mohamed Moussa**, IRA.
Co-Chair: **Prof. Bechir Ben Rouina**, IO.
Rapporteur: **Dr. Dalel Ouerchefani**, IRA.

08h30-0855: Keynote – Dr. Yadh Labane, Expert, Tunisia. *Climate change: a new challenge for regions prone to desertification in Drylands.*

08h55-11h00: Papers

- *The Olive Tree in Arid Zones and Global Warming Impact.* **Abichou M.,** H. Rajhi, and S. Boubtane
- *Quantifying Climate Variability for Actual and Projected Conditions in a Large South Mediterranean Catchment.* **Gara A.,** K. Gader, S. Khlifi, M. Vanclooster, and C. Bouvier.
- *Moderating Effect of Technical Efficiency on Farmers' Perception of Vulnerability Factors and Adaptation Intentions in Contrasting Climate Risk Levels Irrigated Areas in Tunisia.* **Lasram A.,** F. Yakoubi, R. Nabli, H. Maaroufi, A. Maki.
- *Assessment of Climate Changes Impacts on Olive Production South of Tunisia.* **Wassar F.,** H. Mairech, M. Pasqui, V. Tarchiani, and K. Naguez.
- *Projected Drought under Climate Change Using Deep Learning in a Semiarid Mediterranean Region (Medjerda, Northern Tunisia).* **Gader K.,** A. Gara, S. Khlifi, and M. Vanclooster.
- *Adjustment of Crop Coefficient (Kc) of Wheat (Triticum durum) Using Remote Sensing Based Vegetation Index and effects of Climate Change Projection on irrigation in Bousalem, Jendouba Region (North-western Tunisia).* **Ben Bahri I.**, S. Khlifi, A. Bousselmi, and A. Skhiri.

11h00-11h30: Coffee Break

11h30-13h00: Special Session: DGACTA/GIZ (see details)

13h00-14h30: Lunch Break

14h30-18h00: Session 3: Soil Degradation and Conservation

Chair: **Dr. Mohamed Nasri**, ACSAD.
Co-Chair: **Mr. Mustapha Louhichi**, DGACTA.
Rapporteur: **Dr. Fethi Abdelli**, IRA.

14h30-14h55 : Keynote – Dr. Gilles Bergametti, LISA, France. *Wind erosion: an interplay between wind, rain and the soil surface*

14h55-16h30: Papers

- *Monitoring of the Potential Ecological Risk of Heavy Metals Pollution in Agricultural Soil around a Phosphate Fertilizer Factory (Gabes, Tunisia).* **Ben Amor A.**, L. Ben Miled, K. Ben Atia Zrouga, L. Ben Yahia, N. Chaira, and K. Nagaz.
- *Effect of the Cereal-Legume Intercropping on Nutrients Levels Availability and Ph Variation in Arid Region Soil.* **Souid A.,** W. Hemdi, A. Atallah, F. Telahigue, N. Hamdi, M. Moussa, I.-R. Zoghlami, and A. Bouajila.
- *Assessment of Water Erosion Processes and Control Using RUSLE.* Hadj Taieb A., Louis Evence Zoungrana, M. Mimouni, **F. Joumade Mansouri**.
- *What Drives Wind Erosion in Barley Cropped Areas? The Example of Southern Tunisia.* **Bouet C.**, M. T. Labiadh, S. Sekrafi, M. Ltifi, B. Marticorena, and J.-L. Rajot.

- *Impact of Organic Amendments from Date Palm Residues on Water Retention Properties of Two Coarse Texture Soils.* **Le Guyader E.**, X. Morvan, M. Gommeaux, V. Miconnet, B. Marin, M. Moussa, N. Karbout, I.-R. Zoghlami, D.-S. Intrigliolo, and M.-J. Iniesta Delgado.
- *Use of Myccorhization and Biochar Amendment as a Strategy for Improving the Drought and Salinity Tolerance in Date Palm (Phoenix dactylifera L.).* **Jaiti F.,** I. Benaceur, Abdelhi Dihazi, K., and R. Meziani.
- *Nutrient Management: A Way for Dealing with Low Soil Fertility in Semi-Arid Cropping Systems in Morocco.* **Boulal H.,** M. El Mourid, and M. El Gharous.
- *Impact of Biochar Derived from Green Waste on Physical-Chemical Soil Properties in Arid Land Soil of Medenine.* **Lamourou H.,** N. Karbout, Z. Zriba, I.-R. Zoghlami, A. Bennour, M. Ouessar, and M. Moussa.
- *Short-Term Effects of Olive Mill Wastewater Land Spreading on Soil Humic Acids in Arid Regions.* **Ben Mbarek H.,** R. Chaker, C. Mbadra, H. Rigane, I. Ben Mahmoud, P. Charzynski, and K. Gargouri.
- *Effects of Municipal Solid Waste Compost as Soil Amendment on the Distribution of Heavy Metals in a Sandy Soil.* **Oueriemmi H.,** P.-S. Kidd, P.-F. Ángeles, and M. Moussa.
- *Exploring the Potential of Super-Absorbent Polymer and Biochar as Water-Absorbent Amendments for Drought Resilient Sandy Soils.* **Ibrahimi K.**, R. Aloui, W. Saadaoui, and N. Tarchoun.
- *Application of Biochar Derived from Sewage Sludge Pyrolysis at Different Temperatures on a Sandy-Loam Alkali Soil: Effect on Carbon Sequestration, Barley Growth, and Other Selected Properties.* **Zoghlami R.-I.**, R. Weghlani, S. Hechmi, Y. Suidi, H. Oueriemmi, H. Lamourou, Y. Zarrouki, and M. Moussa.
- *Joint Effect of Non-Tillage and Crop Rotation on Dynamic, Kinetic and Phosphorus Mineralization Potential, under Semi-Arid Tunisia Climate.* **Boudabbous K.,** R.-I. Zoghlami, M. Barbouchi, K. Abida, and N. Ben Aissa.
- *The Use of Olive Mill Wastewater as Biofertilizer to Reduce Land degradation.* **Dbara S.,** A. Ouni, S. Abboud, A. Sebai, and K. Lahmar.
- *Impact of Drought and Saline Water Applied for Olive Trees (Olea Europaea. L) on Soil Fertility under an Arid Climate.* **Trabelsi L.,** K. Gargouri, H. Ben Mbarek, C. Mbadra, M. Ghrab, A. Ben Hassena, and R. Gargouri-Bouzid.
- *Windblown Loss of Topsoil from Agricultural Lands under Different Tillage Systems During Aeolian Erosion.* **Labiadh M.-T.,** G. Bergametti, J.-L. Rajot, C. Bouet, M. Ltifi, S. Sekrafi, T. Henry des Tureaux, and H. Khatteli.
- *Short-Term Effects of Organic Amendment Source on Total Carbon and Total Nitrogen in Loam Soils (SE Tunisia).* **Chniguir N.,** A. Bouajila, Z. Omar, and S. Mahmoudi.
- *Investigation of Mechanisms of an Upflow-Downflow Siliceous Sand Filtration System for Surfactants Bathroom Grey Water Treatment.* Chaabane S., Khalifa Riahi, Béchir Ben Thayer, **S. Anibi**

16h30-17h00: Tea Break

17h00-18h00: Papers

- *Estimation of CO2 Emission from an Amended Soil under Arid Condition.* **Chaker R.**, H. Ben Mbarek, S. Maktouf, J. Bouzid, and K. Gargouri.

- *Improvement of Degraded Agricultural Soils after Short and Long Period of Municipally Treated Wastewater Irrigation, Tunisia (Gabes) in Humid Season.* **Werheni R.,** Y. Hidri, F. Souid, F. Hajjaji, H. Abdennaceur, M. Moussa, and S. Eturki.
- *Potential Use of Olive Mill Wastewater Spreading in Olive Orchards for Improving Soil Fertility, Yield and Olive Oil Quality under Semi-Arid Environment.* **Abboud S.,** A. Ouni, and S. Dbara.
- *Assessment and Monitoring of Soil Degradation and Yields in the Agricultural Areas of Skhira-Golf Gabes using a Statistical Approach: Spatial Interpolation and Principal Component Analysis.* **Souidi Y.,** M. Bagues, H. Ben Mbarek, I. Ben Mahmoud, H.0Oueriemmi, H. Rigane, and M. Moussa.
- *Effects of Long-Term Tillage on Soil Organic Matter Humification in Soil Profiles Under Arid Climate.* **Ben Mahmoud I.,** H. Ben Mbarek, A. Sanchez, M. Medhioub, H. Rigane, and K. Gargouri.
- *Farm Manure Combined with Sandy Amendments Improve Soil Fertility and Barley Production in Different Oasis Topography in Arid Regions.* **Zriba Z.,** N. Karbout, H. Lamourou, F.-E. Ben Azaiez, H. Bousnina, and M. Moussa.

18h00-19h00: Poster presentations: Topics 3 & 4

DAY 3: 16 June 2022

08h30-11h00: Session 4: Environmental Monitoring and Assessment in Drylands

Chair: **Dr. Hakim Boulal**, APNI, Morocco
Co-Chair: **Prof. Mohamed Ouessar**, IRA
Rapporteur: **Dr. Hanen Dhaou**, IRA

08h30-08h55 : Keynote – Prof. Zohra Lili Chabaane, INAT, Tunisia. *Importance du renforcement des capacités en Géomatique pour booster la recherche et le développement*

08h55-11h00: Papers

- *Sentinel-2 Data for Land Use Mapping: Comparing Different Supervised Classifications in Semi-Arid Climate, Nord-Est Area Case of Zaghouan, Tunisia.* **Abida K.**, M. Barbouchi, K. Boudabbous, K. Saad, Z. Ben Rabeh, and H. Bousnina.
- *Using Sentinel-2 Satellites for the Change Detection of Shallow Bathymetry: The Case Study of Ousja Ghar El Meleh Coastal Area, North-East Tunisia*. **Khaled A.**, S. Bel Hadj Ali, and F. Trabelsi
- *Potential of ALOS-2 and Sentinel-1 Data to Estimate Soil Moisture Over Cereal Fields.* **Ayari E.**, Z. Kassouk, Z. Lili-Chabaane, N. Baghdadi, S. Bousbih, and M. Zribi.
- *Using Combined Approach Sentinel-1- RUSLE to Spatialize Soil Erosion in the North of Tunisia*. **Barbouchi M.,** H. Cheikh M'hamed, A. Souissi, M. Annabi, and H. Bahri
- *A National Land Reference System for Tunisia*. **Essifi B.,** A. Di Gregorio, M. Henry, K. Selmi, S. Belhaj Salah, A. Salis, K. Aloui, I. Cherif, K. Saad, R. Dannunzio, F. Khemakhem, and B. Karray
- *Detecting the Effects of Fires Using Sentinel-2 Data Satellite Images and Case Monitoring Thein Deterioration of Abu Aisha Agricultural Project/Libya.* **Alfurjani Abdullah F.**

- *Land Use Classification of a Semi-Arid Watershed Using Sentinel 2.* **Gharnouki I.,** Z. Kassouk, J. Aouissi, and S. Benabdallah
- *Using Earth Observation for Sustainable Natural Resources Management: MISBAR.* **Joumade Mansouri F.**
- *Using Earth Observation for Sustainable Natural Resources Management: MISLAND.* **Joumade Mansouri F.**
- *Mapping and Monitoring of Salt-Affected Soils from Landsat 8, Sentinel-2 and PRISMA Satellite Data.* **Saad K**.
- *Sentinel-1 and 2 Time-Series for Crop Landcover Mapping in Irrigated Arid Region: Cases of Siliana, Kef and Kairouan in Tunisia.* **Kassouk Z.,** G. Ramat, I. Dayeg, and Z. Lili Chabaane
- *Drought Analysis and Return Periods in North and West Africa, with its Connection to the El Nino–Southern Oscillation (ENSO).* **Henchiri M.,** J. Zhang, and B. Essifi
- *Estimation of Crops' Water Consumption by Remote Sensing: SEBAL Model Calculations Versus Ground Observation in the Irrigated Area of Lakhmass (Siliana, Northern Tunisia).* **Belhaj Kilani A.**, S. Khlifi, M. Vanclooster

11h00-11h30: Coffee Break

11h30-13h00: Special Session: ACSAD (see details)

13h00-14h30: Lunch break

14h30-16h30: Session 5: Geology, Geo-Resources and Environment

Chair: **Prof. Giovanni Sistu**, Univ. Cagliari.
Co-Chair: **Dr. Mohamed Labiadh**, IRA.
Rapporteur: **Dr. Saifeddine Eturki**, IRA.

14h30-16h30: Papers

- *Web-based Deployment of a Hydrogeological Database using the Observations Data Model 2 (ODM2).* **Hammami M.-A.,** S. Brahem, H. Chihi, I. Mezni, M. Ould Baba Sy, and P. Cau.
- *Contribution of Geophysics in The Characterization of Aquifers in the Region of Gabes (Southeast Tunisia).* **Aydi H.** and M. Gasmi.
- *Study of the Geochemistry Composition of Aquifers in the Zouarine Region (Northwest Tunisia).* **Ben Alaya M.,** G. Ben Zid, M.-H. Msaddek, and F. Melki.
- *Salinization Processes in the Coastal Aquifer of Grombalia (NE Tunisia): A Hydrogeochemical Study.* **Ben Saad E.,** M. Ben Alaya, J.-D. Taupin, A. Abedelkrim, G. Ben Zid, N. Chaabene, and N. Patris.
- *Groundwater Recharge and Groundwater Flow in the Plio-Quaternary Unconfined Aquifer of Jerba Island (Southeastern Tunisia), using Hydrogeochemistry, Isotopic Techniques and 222Rn Concentrations.* **Telahigue F.,** W. Hamdi, and A. Kharroubi.
- *Electrical Resistivity Contribution to the Hydrogeological Study of the Triassic Sandstone Aquifer in Arid Regions, Southeastern Area of Tunisia.* **Frifita N.,** M. Ben Zaied, M. Ouessar, and K. Mickus.
- *Reconstruction of Paleoclimate and Paleoenvironments of the Sidi Ali El Mekki Lagoon (Gulf of Tunis).* **Gaceur E.,** N. Kallel, and S. Desprat.
- *Conceptualization of the Hydrogeological System of Menzel Bourguiba Aquifers (Northeastern Tunisia).* **Ayari I.,** M. Ben Alaya, and M. Zammouri.
- *Characterization of the Nefza Dunes Aquifers (Northern Tunisia) using Electrical Sounding and Gravity Data.* **Kraiem J.,** H. Balti, F. Hachani, and M. Gasmi.

- *Evaluation of Cd Adsorption of Phosphogypsum Aqueous Solution on Haidoudi Clays: Equilibrium and Kinetics*. **Ben Moussa K.,** S. Eturki, A. Ghorbal, F. Khalfeli, F. Souid, F. Hajjeji, and M. Ouessar.
- *Electrical Resistivity Tomography Contribution to the Characterization of Soil Sediments Physical Properties behind Gabion Check Dams in Arid Regions, Southeastern Area of Tunisia*. **Ben Zaied M.,** N. Frifita, F. Abdelli, and M. Ouessar.
- *Morpho-sedimentary Study of the Downstream of Wadi El Alem: Catchment by Discharge of Wadi El Fakka and Appearance of a Fossil Valley*. **Lahmar K.,** and A. Sebai.
- *Offshore Extension of Confined Aquifers in the Gulf of Gabes Continental Shelf, Tunisia.* **Bachtouli S.**, M. Abidi, J.-C. Comte, and M. Zairi.
- *Hydrochemistry for the Assessment of Groundwater Quality in Mateur Plain, Northeastern Tunisia*. **Riahi C.,** M.-F. Ben Hamouda, M. Khouatmia, and K. Regaya.

16h30-17h00: Tea Break

17h00-18h00: Closing Ceremony

PROGRAM

DAY 4: 17 June 2022

Field visit schedule

Stop N°	Hour	Stop	Activity
1	06h30	Djerba	Departure from the hotel Overview of the filed tour
2	09h00-09h30	Ain el Anba	Picturesque view Land use changes Socio-economic dynamics
3	10h30-11h00	Ksar Hadadda	Ksours Star war shooting site Break
4	12h00-13h30	Chenini	Troglodyte housing Traditional water harvesting structures (jessour) Lunch break
5	14h30 15h00-17h00	IRA IRA	Tour of IRA headquarters Award Ceremony of the 1st Prize of Prof. Khatteli for the Promotion of Science and Innovation, Celebration of the UNCCD World Day to Combat Drought and Desertification
1	20h00		Arrival back in the hotel

PROGRAM

POSTER PRESENTATIONS

Session 1: Water Resources Mobilization and Management

- *Germination Responses of Reaumuria Vermiculata to Salinity and Temperature*. **Abbassi F.**, T. Tebra, H. Benabdallah, J. Faghim, K. Nagaz, and F. Guesmi.
- *Salinity of Phreatic Water Resources: Water–Rock Interaction and Saltwater Intrusion from Sebkhas (Northeast Tunisia).* **Abdelkrim A.**, M. Ben Alaya, J.-D. Taupin, E. Saâd, G. Ben Zid, N. Cahbenne, and N. Patris.
- *Water Resources Valorization in Arid Regions by Small Ruminants Herds and their Impacts on the Degradation of Rangelands and the Sustainability of Livestock Farming*. **Atoui A.**, A. Laaroussi, M. Abdennebi, and S. Najari.
- *GIS and Multi-Criteria Analysis to Select Potential Sites of OMWW Storage Tanks*. **Elkadri A.,** S. Elfkih, H. Sahnoun, and M. Abichou.
- *Recovery of Ammonia in a Digested Manure Plant of Arborea (Sardinia – Italy) using a Gas Permeable Membrane Technology.* **Virdis A.** and M.-A. Dessena.
- *Production Gaps in Tunisian Semi-Arid Irrigated Perimeters: Diagnosis and Causal Factors.* **Lasram A.,** R. Nciri, F. Yakoubi, R. Nabli, H. Maaroufi, and A. Maki.
- *Assessment of the Physio-Biochemical Performance of Tunisian Barley Landraces under Deficit Saline-Irrigation in Arid Environment.* **Bagues M.**
- *Spatio-temporal Treated Wastewater Irrigation Effect: Key Components of Soil Physical Changes in the Case of Light Texture Soil*. **Bekir S.**, K. Boudabbous, M. Barbouchi, R.-I. Zoghlami, M. Moussa, and H. Bousnina.
- *Performance of Olive Cultivars under Partial Root-Zone Drying (PRD) Irrigation in Semi-Arid Region of Tunisia.* **Abboud S.** and M. Braham.
- *Effective Actions on Water Pollution from Nitrates in Sardinia, Italy*. **Perelli C.**, G. Sistu, A. Pireddu, M. Cordeddu, M.-A. Dessena, A. Virdis, and I. Ghiron.
- *Deciphering Strategies for Salinity Stress Tolerance in Tunisian Henna Plant (Lawsonia Inermis) in the Context of Climate Change.* **Enneb H.**
- *Role of Natural Clay and Cattails in Improving Purification Performance in an Urban Wastewater Treatment System.* **Hajjaji F.**, S. Eturki, F. Khalfelli, F. Souid, K. Ben Moussa, and M. Ouessar.
- *Approved Cyclic Treatment System of Grey Water Used for Irrigation*. **Filali H.** and M. Hachicha.
- *Majhoul as the Most Sensitive Variety under Salinity Conditions Among Five Date Palm (Phoenix Dactylifera L.) Cultivars Propagated In Vitro.* **Benaceur I.**, R. Meziani, J. El Fadil, M. Idbella, and F. Jaiti.
- *Groundwater Artificial Recharge with Reclaimed Water for Sustainable Water Resource.* **Gdoura K**.
- *Irrigation Water Between Degradation of Quality and Continued Exploitation for Tunisian Saharan Oasis Agrosystems*. **Dhaouadi L.**, H. Besser, and M. Moussa.
- *Geostatistical Analyst for the Spatial Modeling of Rainfall in Gafsa Governorate.* **Mchich H.**, F. Karaouili, M. Ouessar, and L. Dhaouadi.
- *Evaluation of Groundwater Quality of Skhira Coastal Phreatic Aquifer in Southeast of Tunisia: Assessment of Potential Risk of Alkalinization and Soil Sodicity.* **Melki S.** and M. Gueddari.

- *A Study on Rainfall Prediction Using Stochastic ARIMA Model.* **M'nassri S.**, B. Latrech Basma, A. El Amri, A. Lasrem, A. Rkik, and R. Majdoub.
- *Physiological and Biochemical Impacts of Salt and Osmotic Stress on the Germination of Pea (Pisum Sativum L.).* **Mohamed A.** and M. Loumerem.
- *Impact of Treated Wastewater Irrigation on Soil, Case of Sfax Region, Tunisia.* **Abidi M.**, S. Bachtouli, and M. Zairi.
- *Macrophyte and Indigenous Bacterial Coremediation Process for Pentachlorophenol Removal from Wastewater.* **Werheni R.,** S. Eturki, and A. Hassen.
- *Valorization of dam sediment, Case of the Siliana dam NW, Tunisia.* **Anibi S.**, S. Ellouze, N. Jardak, W. Lassoued, and M. Zairi.
- *Possibility of Agricultural Valorization of Treated Textile Effluents: Effects on the Soil and a Fodder Plant.* **Mzahma S.**, D. Souguir, R. Ben Amar, J. Duplay, and M. Hachicha.
- *Effect of Irrigation Methods using Saline Water on Carrot Yield, Water Productivity and Soil Salinization.* **Tlig W.**, F. El Mokh, A. El Mokh, K. Nagaz, and G. Provenzano.
- *Natural Bioadsorbent and Photocatalysis for the Removal of Textile Dye Herbicide in Presence of Heavy Metals: A Combined System for Water Treatment.* **Elfalleh W.**, I. Assadi, and A.-A. Assadi.

Session 2: Climate Change: Vulnerability and Adaptation in Drylands

- *Vulnerability of the Tunisian Oases Agriculture under the Change of Production's Factors: Impact of Climate Change and water Resources Deficiency.* **Aljane F.**, M. Bekkay, M.-H. Neily, and H. Hamza.
- *Spatio-temporal Analysis of Drought in the Merguellil Watershed, Central Tunisia.* **Hamrouni F.**, H. Omar, and H. Abida.
- *Adaptation of Schinus Molle and Schinus Terebinthifolius in Two Different Locations in Tunisia (North and South): A Study Based on a Phytochemical Analysis.* **Tir M.**, A. Mufti, A. Feriani, and N. Tlili.
- *New Water and Soil Management Strategy and Implementation of Green Technologies for Climate-Resilient Agriculture EauSIRIS Project.* **Rhouma O.**, H. Laabidi, M. Louhichi, R.-E. Musumeci, F. Ferlito, V. Campailla, G. Pasciuta, and F. Abdelli.

Session 3: Soil Degradation and Conservation

- *Valorization Mode of Pastoral Lands in Arid Regions by Small Ruminants Herds and the Impacts on the Rangelands Preservation and the Pastoral Breeding Sustainability Towards Aridity and Climate Changes.* **Laroussi A.**, A. Atoui, M. Abdennebi, and S. Najari.
- *The Potential of Legume (Chickpea) to Advance Nitrogen, Phosphorus and Microbial Biomass in Rhizospheric Alkaline Soil of Arid Climate.* **Atallah A.,** W. Hemdi, A. Souid, F. Telahigue, N. Hamdi, R.-I. Zoghlami, A. Bouajila, and M. Moussa.
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