



Conference Program

**8th International Scientific Conference
on Water**

20-21 March 2025
Szarvas, Hungary



Thursday, March 20, 2025	
9.00 – 10.00	Registration
Plenary session Moderator: Jancsó M.	
10.00 – 10.20	Opening ceremonies
10.20 – 11.00	Reinhard Nolz: Agricultural water management research from the lysimeter scale to the field scale
11.00 – 11.40	Tibor Bíró: Improving the water management of the Danube-Tisza Interfluve
11.40 – 12.20	Patricia Ann J. Sanchez:
12.30 – 14.00	Lunch break and Poster Session (MATE Conference Center)
Scientific session – Regional scale and remote sensing (MATE Conference Center) Moderator: Waltner I.	
14.00 – 14.20	Angura Louis, Zsolt Zoltán Fehér, Tamás János, Attila Nagy: SUPPORTING WATER RESOURCE DECISION MAKING THROUGH LAND COVER MAPPING ON A REGIONAL LANDSCAPE
14.20 – 14.40	Balázs Kajári, Norbert Túri, János Körösparti, Csaba Bozán: ANALYSIS OF INLAND EXCESS WATER DURABILITY USING SENTINEL SATELLITE IMAGES BASED ON INLAND EXCESS WATER FREQUENCY MAPS GENERATED BY CONVOLUTIONAL NEURAL NETWORKS
14.40 – 15.00	Dávid Pásztor, Zsolt Fehér, Attila Nagy, János Tamás: HYDROMORPHOLOGICAL ASSESSMENT AND DYNAMIC WATER BALANCE MODELING OF RESERVOIRS
15.00 – 15.20	Nxumalo Gift Siphwe, Zsolt Feher, Tamás Janos, Ulubek Burganakov, Nagy Attila: ADVANCING AGRICULTURAL WATER REGIME USING SAR TECHNOLOGY: SOIL MOISTURE AND ETC ESTIMATION FOR SUSTAINABLE CROP PRODUCTION
15.20 – 15.40	György Kerecsi: AUTOMATED VEGETATION INDEX CALCULATION FOR LYSIMETER MONITORING USING A SIMPLIFIED PYTHON SCRIPT
Scientific session – Plant physiology and water (MATE ÖVKI Demonstration Center) Moderator: Zsembeli J.	
14.00 – 14.20	Béla Gombos, Ildikó Szalókiné Zima: EXTREME DROUGHT IN SZARVAS REGION IN 2022
14.20 – 14.40	Patricia Tarkanyi, Mihaela Lăcătuș, Georgeta Sofia Popescu, Laura Rădulescu, Liana Maria Alda, Ersilia Alexa, Adrian Riviș, Luminița Pîrvulescu, Iuliana-Corina Megyesi, Bordean Despina-Maria: INFLUENCE OF TEMPERATURE AND RAINFALL ON THE NETTLE PLANT MOISTURE CONTENT
14.40 – 15.00	Mihaela Lăcătuș, Patricia Tarkanyi, Aurica Breica Borozan, Georgeta Sofia Popescu, Laura Rădulescu, Liana Maria Alda, Atena-Mariana Poiană, Diana Moigrădean, Ioan Ladislav Caba, Bordean Despina-Maria: WATER AS AN ESSENTIAL FACTOR IN THE DEVELOPMENT OF FOOD PRODUCTS FROM AMARANTHUS RETROFLEXUS AND CHENOPODIUM ALBUM
15.00 – 15.20	Viktor Vincze, Mihály Jancsó, Árpád Székely, Ildikó Kolozsvári, Zoltán Futó: THE IMPACT OF TILLAGE ON SOYBEAN GROWTH DYNAMICS AND POD PRODUCTION
15.20 – 15.40	Mohammadreza Ojani, Issa Loghmanieh, Eisa Ebrahimi, Azin Rooien, László Bertalan: COMPARATIVE ANALYSIS OF PHOSPHORUS FERTILIZER EFFECTS ON ZINC CONCENTRATIONS IN SOIL AND WHEAT UPTAKE UNDER IRRIGATED AND RAINFED CONDITIONS

15.40 – 16.10	Coffee break and Poster Session (MATE Conference Center)
Scientific session – Water Quality (MATE Conference Center) Moderator: Gombos B.	
16.10 – 16.30	Mohammadreza Ojani, Mehdi Ghajar Sepanlou, Mohammad Ali Bahmanyar, Majid Danesh, Zeynab Kougir Chegini, Negin Sheykhi Gerakouei, Szabo Szilard: INVESTIGATION OF TEMPORAL AND SPATIAL CHANGES OF NITROGEN POLLUTION IN DRAINAGE OF LANDS WITH DIFFERENT LAND-USES IN SHIROOD CATCHMENT LOCATED IN MAZANDARAN PROVINCE
16.30 – 16.50	Aderemi I.A., Okeola O.G., Mahmud H.O., Abdulkadir T.S., Salami H.A., Salami A.W.: HARNESSING INTERNET OF THINGS (IOT) AND ADVANCED ANALYTICS FOR SUSTAINABLE WATER QUALITY MANAGEMENT
16.50 – 17.10	Sándor Kun, Imre Boczonádi, János Tamás, Attila Nagy: INFLUENCE OF INTENSE RAINFALL ON THE WATER QUALITY AND MICROBIAL CHARACTERISTICS OF AN URBAN STREAM
17.10 – 17.30	Andreea Ardelean, Bianca-Denisa Chereji, Florentina-Daniela Munteanu: THE ENVIRONMENTAL IMPACT OF THE PRESENCE OF PSYCHOACTIVE SUBSTANCES
Scientific session – Ecosystems and services, water management (MATE ÖVKI Demonstration Center) Moderator: Túri N.	
16.10 – 16.30	Priya Sharma, Gergő Gyalog, Mónika Varga: ECONOMIC VALUATION OF THE MULTIPLE BENEFITS OF FISHPONDS
16.30 – 16.50	Erzsébet Csengeri: THE CHANGE OF WETLAND ECOSYSTEM SERVICES IN BEKES COUNTY
16.50 – 17.10	Norbert Túri, Balázs Kajári, János Körösparti, Csaba Bozán: "WHERE COULD THE PRACTICE OF SUBSURFACE DRAINAGE STAND IN HUNGARY? AN OVERVIEW OF THE INTERNATIONAL STATUS OF TILE DRAINAGE APPLICATION AND RESEARCH
17.10 – 17.30	Douraiied Guizani, János Tamás, Attila Nagy: SUSTAINABLE URBAN DEVELOPMENT IN DEBRECEN: ADDRESSING WATER SCARCITY, AGRICULTURAL DECLINE, AND INDUSTRIAL EXPANSION THROUGH COMMUNITY-BASED HYDROPONIC SOLUTIONS
18.00 – 21.00	Closing remarks Gala dinner (MATE Conference Center)

Friday, March 21, 2025	
10.00 – 12.00	Guided field visit – MATE ÖVKI Lysimeter Station
	MATE HAKI Indoor aquaculture systems and fish ponds

Malek Abidli, István Waltner, Ágota Horel: INVESTIGATING THE INTERCEPTION EFFECT OF SELECTED PERMEABLE SOIL COVERING MATERIALS

Tabita Adamov, Tiberiu Iancu, Elena Pet, Anda Milin, Cosmin Salasan, Ramona Ciolac, Camelia Mănescu, Marius Gordan, Dragoş Chende: HOW AI CAN BE THE SOLUTION TO AGRUCULTURAL PROBLEMS

Gábor Bencze, Roland Hudák: EFFECT OF NUTRIENT MANAGEMENT AND IRRIGATION ON WINTER WHEAT YIELD

Károly Bodnár, Erika Skobrák Bodnár: DATA ON THE WATER REQUIREMENTS OF FARM ANIMALS

Boglárka Bozóki, Gergő Péter Kovács, Csaba Gyuricza: THE IMPACT OF TILLAGE METHODS ON SOIL WATER CONTENT IN GREEN PEA (*PISUM SATIVUM* L.)

Brad Ioan, Camelia Mănescu, Cosmina Toader, Andrea Feher, Remus Gherman, Firu Adrian: RESERCHES ON THE IMPORTANCE OF AGRICULTURE IN THE ROMANIAN ECONOMY

Bianca-Denisa Chereji, Florentina-Daniela Munteanu: FROM WASTE TO WELLNESS – SHEEP WOOL A REMEDY FOR INDOOR AIR QUALITY

Péter Czomba, Zoltán Túri, Gábor Molnár, Róbert Vass: AIRBORNE LIDAR-BASED VOLUME DETERMINATION AND WATER RETENTION CAPACITY ESTIMATION OF FLUVIAL OXBOW LAKES

Iva Čurić, Ernis Saračević, Jörg Krampe, Norbert Kreuzinger, Heidemarie Schaar, Davor Dolar: HYBRID SOLUTIONS: ULTRAFILTRATION AND REVERSE OSMOSIS FOR ELIMINATING PFBA AND PFOA FROM TEXTILE WASTEWATER

Florent Demelezi, Yohannes Gebregziabhir, Mihaly Jancso, Zoltan Vekerdy: EVALUATION OF CROP GROWTH PERFORMANCE OF WINTER WHEAT AND MAIZE IN HUNGARIAN CLIMATIC CONDITIONS AND WATER STRESS

Daniel Dicu, Radu Bertici, Mihai Herbei, Adina Horablaga, Cosmin Popescu, Laura Smuleac, Adrian Smuleac, Raul Pascalau: RELOCATION AND RECONFIGURATION OF A DRAINAGE CHANNEL IN TIMIŞOARA, ROMANIA

Zibuyile Dlamini, Ágnes Kun, Bela Gombos: COMPARISON OF QUALITY PARAMETERS IN IRRIGATED AND RAIN-FED MAIZE (*ZEA MAYS* L.): A CASE STUDY IN SZARVAS, HUNGARY

Katalin Fatér, István Waltner: WATER FOOTPRINT ESTIMATION FOR SELECTED MAJOR CROPS IN HUNGARY

Yohannes Gebregziabhir, Florent Demelezi, Zoltán Vekerdy: A REVIEW OF CROP WATER STRESS ASSESSMENT USING REMOTE SENSING TECHNIQUES

Roland Hudák and Gábor Bencze: THE EFFECT OF DIFFERENT IRRIGATION LEVELS AND DROUGHT STRESS ON SORGHUM

Kántor M., Gécz G., Horváth M.K.: APPLICATION OF REDOX POTENTIAL IN WATER QUALITY ASSESSMENT

- Ildikó Kolozsvári, Ágnes Kun, Noémi Valkovszki, Gergő Péter Kovács, Csaba Gyuricza: MAGNESIUM CONCENTRATION IN PLANT PARTS OF SORGHUM SILAGE IRRIGATED WITH HIGH-SALINITY EFFLUENT UNDER DIFFERENT TREATMENTS
- Zeynab Kougir Chegini, Dariush Zayyeni, Mohammadreza Ojani, Szilárd Szabó: A BIBLIOMETRIC ANALYSIS OF LITERATURE ON THE WASTEWATER MANAGEMENT ALONGSIDE OF BIOENERGY PRODUCTION
- János Körösparti, Norbert Túri, Balázs Kajári, Csaba Bozán: DESIGNATION OF AGRICULTURAL RESERVOIR AREAS USING GIS-BASED SPATIAL PLANNING TOOLS
- Patrik Krizsán, Gábor Bencze, Ildikó Kolozsvári: THE EFFECT OF FOLIAR FERTILIZATION ON INCREASING OIL CONTENT IN WINTER OILSEED RAPE (BRASSICA NAPUS L.) CULTIVATION IN THE CASE OF A DRY SEASON
- Camelia Mănescu, Tiberiu Iancu, Nicoleta Mateoc-Sîrb, Elena Peț, Ioan Brad, Tabita Adamov, Oana Sicoe-Murg, Dragoș Chende: THE CONTRIBUTION OF TOURISM TO THE SUSTAINABLE DEVELOPMENT OF RURAL AREAS. CASE STUDY – RELIGIOUS TOURISM IN THE NORTH-EAST REGION
- Milin Ioana Andaa, Țigan Eugeniab, Merce Iuliana Ioanaa, Rujescu Ciprian Ioana Chende Dragos Cipriana: AVAILABILITY AND SUSTAINABLE WATER MANAGEMENT IN ROMANIA
- Pascalau Raul, Cosmin Alin Popescu, Imbrea Florinel, Nita Simona, Laura Iosefina Smuleac, Adrian Smuleac, Cosmin Salasan: THE IMPORTANCE OF NEW TECHNOLOGY IN WATER IRRIGATION SYSTEMS FOR MODERN AGRICULTURE
- Georgeta Sofia Popescu, Ariana Bianca Velciov, Patricia Tarkanyi, Antoanela Cozma, Lia Sanda Rotariu, Despina Bordean: MOISTURE IN SOME FRUITS: NUTRITIONAL IMPLICATIONS
- Cosmin Salasana, Carmen Simona Dumitrescub, Cosmina Toaderc, Tabita Adamovd, Cristian Gainae, Raul Pascalauf: SOCIOECONOMIC AND DEMOGRAPHIC DYNAMICS IN ARAD COUNTY AND THE WESTERN REGION OF ROMANIA: CHALLENGES, OPPORTUNITIES, AND POLICY IMPLICATIONS
- Anka Roxana PASCARIU, IANCU MIHAELA, CHENDE DRAGOȘ, GORDAN MARIUS, IOSIM IASMINA, MĂNESCU CAMELIA, RAMONA CIOLAC, ADAMOV TABITA, TIBERIU IANCU: EFFECTIVE COMMUNICATION STRATEGIES FOR WATER RESOURCE MANAGEMENT: BRIDGING SCIENCE AND PUBLIC AWARENESS
- Smuleac Laura, Imbrea Florin, Horablaga Adina, Smuleac Adrian, Pascalau Raul, Bertici Radu, Dicu Daniel: THE ROLE OF WATER MANAGEMENT IN CLIMATE CHANGE ADAPTATION
- Stanivuk Jelena, Pinter Zsolt, Gyalog Gergő, Ljubobratović Uroš, Nagy Zoltán: DOES WATER SCARCITY DRIVE POND AQUACULTURE TOWARD INTENSIFICATION?
- Mohamed Yassine Zaghdoudi, Zoltán Vekerdy: EARTH OBSERVATION TECHNIQUES FOR OPTIMAL IRRIGATION MANAGEMENT
- Barbara Viola, János Grósz Gábor Ernő Halupka: CHANGES IN LAND USE SUPPORTING SUSTAINABILITY IN THE IPEL'/IPOLY BASIN BETWEEN 1990 AND 2018

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