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Announcement of the Call for participation in:

Summer School on Sustainable organic amendment application from a soil and ground water management perspective

- learning, training, and knowledge exchange activity-

Event details

Date: 2 - 6 June 2025

Place: Matica Srpska Novi Sad, Address: Matice Srpske 1, Novi Sad, Serbia

Event summary

The Summer School is organized as part of the horizon Europe TwinSubDyn project. Summer School, designed to provide a deep dive into the transformative effects of organic soil amendments on soil organic carbon, nutrient dynamics, and contaminant behavior in the soil subsurface, with profound implications for groundwater quality. This comprehensive program offers participants a unique blend of theoretical lectures and hands-on demonstrations, guided by leading experts in the field. Key objectives of the Summer School are: (1) Explore the intricate relationships between organic soil amendments and soil quality, focusing on carbon sequestration, nutrient cycling, and contaminant mitigation in the subsurface environment. (2) Provide attendees with practical insights and methodologies for implementing organic soil amendments to address soil and groundwater challenges effectively. (3) Foster a collaborative environment for knowledge exchange and networking among participants and experts in soil science and environmental remediation. (4) Empower early-career researchers (ECR) with essential soft skills training, including experimental design, statistical analysis, scientific writing, and navigating the landscape of ECR career development, targeting appropriate calls to participate in and how to do impactful research. During the summer school, participants will have

the chance to showcase their work in their respective fields through abstract submission, and oral presentations or poster sessions.

Topics of interest

The summer school will cover scientific topics:

1. Long term stability of organic soil amendment,
2. Nutrient management of organic soil amendments;
3. Carbonising sewage sludge or biosolids to remove pollutants;
4. Fate and transport of emerging pollutants in organic soil amendments,

General training topics dedicated to the early-stage researchers:

5. Field experiments design and statistics;
6. Scientific writing training;
7. Round-table breakout sessions ECR career development.

Program

Day 1, 2 nd June 2025 - Opening	
12:00 – 13:00	Registration
13:00 – 14:00	Kickoff & Meet the Experts, Opening Remarks & Trainer Insights <ul style="list-style-type: none"> • Welcome and introduction to the program. Overview of objectives and expectations. • Participant Introductions (2 minutes each participant introduces themselves: brief personal background, motivation for attending the summer school, and a sneak peek into upcoming poster session).
14:00 – 15:00	<i>Welcome Cocktail</i>
15:00 – 15:30	Exploring the TwinSubDyn Project, <i>Snežana Maletić, University of Novi Sad Faculty of Sciences</i>
15:30 – 18:30	Excursion <ul style="list-style-type: none"> • Guided Tour of Novi Sad • Visit to the Groundwater Exploitation System, <i>Jasmina Agbaba and Aleksandra Tubić, University of Novi Sad Faculty of Sciences</i>
Day 2; 3 rd June 2025 – Topic 1 and 5	
Long term stability of organic soil amendment (Session chairs: <i>Bruno Glaser, Heike Knicker, Arthur Gross, Jelena Beljin</i>)	
9:00 – 09:40	Keynote lecture 1: Biochar as a CDR Technology: Where Does It Stand and Can It Be Combined with Other CDR Methods? - <i>Claudia Kammann, Hochschule Geisenheim University</i>
9:40 – 10:20	Keynote lecture 2: Biochar and Lime Application Effect on Soil Organic Carbon Content Under Different Tillage Systems on Acid Soil: A 7-Year Field Experiment - <i>Boris Đurđević, Josip Juraj Strossmayer University Osijek</i>

10:20 – 10:35	Application Of Synthetic Soil in FTIR Spectroscopic Investigation of Soil Composition - <i>Branko Kordić, University of Novi Sad Faculty of Sciences</i>
10:35 – 10:50	Customized biochar for soil applications in arid land: Effect of feedstock type and pyrolysis temperature on soil microbial enumeration and respiration - <i>Ahmed Rashid Al rabaiai, Sultan Qaboos University</i>
10:50 – 11:05	Vertical Biochar Transport in Soil in A Long-Term Field Experiment in Germany - <i>Ryan Pearson, Martin-Luther-Universität Halle-Wittenberg</i>
11:05 – 11:35	<i>Coffee break and poster sessions 1</i>
11:35 – 13:00	Training - Experimental Design Strategies for Measuring the Stability of Organic Soil Amendments Lecturer: <i>Heike Knicker, Instituto de la Grasa, Consejo Superior de Investigaciones Cientificas</i>
13:00 – 14:00	<i>Lunch break</i>
Training - Field experiments design and statistics Lecturers - <i>Bruno Glaser, Martin-Luther-Universität Halle-Wittenberg; Roland Bol, Forschungszentrum Jülich; Lutz Weihermüller, Forschungszentrum Jülich; and Arthur Gross, Martin-Luther-Universität Halle-Wittenberg</i>	
14:00 – 16:00	Funds limited and unlimited examples – with practical exercise <i>Roland Bol (60 min)</i> Practical exercise - <i>Bruno Glaser, Lutz Weihermüller and Arthur Gross (60 min)</i>
16:00 – 16:30	<i>Coffee break and poster sessions 1</i>
16:30 – 16:45	Different field experimental designs, advantages and disadvantages - <i>Bruno Glaser</i>
16:45 – 17:00	Decision tree for proper statistical testing - <i>Arthur Gross</i>
17:00 – 17:15	Advantage of guided sampling - <i>Lutz Weihermüller</i>
17:15 – 17:30	Leveraging Machine Learning for accurate and interpretable suspended sediment concentration predictions - <i>Houda Lamane, University Hassan II / ICARDA</i>
17:30 – 18:30	Poster presentations
Day 3; 4th June 2025 – Topic 2 and 3	
Nutrients management of organic soil amendments (Session chairs: Roland Bol, Lutz Weihermüller, Srđan Rončević)	
09:30 – 10:10	Keynote lecture 1: Manure management at farm scale: problem or opportunity? - <i>David Fanguero, Instituto Superior de Agronomía</i>
10:10 – 10:50	Keynote lecture 2: Greenhouse gases (GHG) emission from different land use - <i>Zoran Galić, Institute of Lowland Forestry and Environment Novi Sad</i>
10:50 – 11:05	Phosphorus addition impacts on soil nitrogen dynamics in a subtropical plantation - <i>Huijun Ye, Forschungszentrum Jülich GmbH</i>
11:05 – 11:20	Biochar Amendment to Soils as a Tool to Prevent Nutrient Leaching and Increase N-use Efficiency in Lettuce Plants - <i>Álvaro Fernando García Rodríguez, Instituto de la Grasa, Consejo Superior de Investigaciones Cientificas</i>
11:20 – 11:45	<i>Coffee break and poster sessions 2</i>
11:45 – 12:00	Evaluation Of Amendment Properties, Mineralization, And Effects in Soil and Crops - <i>Brian Jonathan Young, Institute of Environmental Assessment and Water Research</i>
12:00 – 12:15	The Effect of Different Mulching Types on The Mycorrhization of Blueberry Roots and the Growth and Development of Both Aboveground and Belowground Parts of the Blueberry Plant - <i>Emeliane Kiladze, Agricultural University of Georgia</i>
12:15 – 12:30	Impact of Subsoil Melioration and Long-term Agriculture management on Water Use of Arable Crops - <i>Leah Eitelberg, INRES- University of Bonn</i>

12:30 – 12:45	The influence of impregnation of the raw material with simple sugars on the slow release of nutrients from the PRODUCED biochar - <i>Karol Osipiuk, Department of Radiochemistry and Environmental Chemistry, Faculty of Chemistry</i>
12:45 – 13:00	Crop Residue as an Organic Amendment: Modelling Benefits and Trade-offs - <i>Jayantifull Hoojon, Indian Institute of Technology Roorkee</i>
13:00 – 14:00	<i>Lunch break</i>
Carbonising sewage sludge to remove pollutants (Session chairs: Snežana Maletić, Bruno Glaser, Nataša Đurišić Mladenović)	
14:00 – 14:40	Keynote lecture 1: Crucial aspects of phosphorus recovery from sewage sludge in context of climate change - <i>Helmut Gerber, PYREG GmbH</i>
14:40 – 15:20	Keynote lecture 2: Effect of the carbonization process of sewage sludge on the properties of the chars and their potential benefits as soil amendments - <i>Marina Paneque, University of Seville</i>
15:20 – 15:35	Hydrothermal Carbonization as A Sustainable Solution: Linking Waste Management (SDG12), Clean Water (SDG6), and Climate Action (SDG13) - <i>Nataša Đurišić Mladenović, University of Novi Sad Faculty of Technology</i>
15:35 – 15:50	Effect of Biochar and Nano-Biochar Amendments on Heavy Metal Immobilization in Soil, Uptake by <i>Lactuca Sativa L.</i> , and Plant Physiological Responses - <i>Monika Raczkiewicz, Maria Curie-Skłodowska University</i>
15:50 – 15:55	Dewatering and Treatment of Domestic Sewage Sludge Using Constructed Reed Bed - <i>Tahra Al Rashdi, College of Applied Sciences and Pharmacy, University of Technology and Applied Sciences (UTAs), Muscat</i>
15:55 – 16:10	The Influence of Pyrolysis Temperature on The Properties of Biochar Derived from Wheat Straw - <i>Nina Đukanović, University of Novi Sad Faculty of Sciences</i>
16:10 – 16:30	<i>Coffee break and poster sessions 2</i>
16:30 – 17:30	Training: Characterization and Properties of Biochar from Various Feedstocks: From Proposal Writing to Experimental Design Lecturers: <i>Heike Knicker, Instituto de la Grasa, Consejo Superior de Investigaciones Científicas; Bruno Glaser, Martin-Luther-Universität Halle-Wittenberg; Snežana Maletić, University of Novi Sad Faculty of Sciences; Álvaro Fernando García Rodríguez, Instituto de la Grasa, Consejo Superior de Investigaciones Científicas</i>
17:30 – 18:30	Poster presentations
Day 4; 5th June 2025 – Topic 4 and 6	
Fate and Transport of Emerging Pollutants from Organic Soil Amendments in Agricultural Soils (Session Chairs: Thorsten Hüffer, Thilo Hofmann, Marijana Kragulj Isakovski)	
09:40 – 09:50	Short introduction to the topic - <i>Thorsten Hüffer and Thilo Hofmann, University of Vienna</i>
09:50 – 10:30	Keynote lecture 1: Potential and limitations of sorbent amendments for increased micropollutant removal in the soil passage - <i>Gabriel Sigmund, Wageningen University</i>
10:30 – 10:45	Modified Spent Coffee Grounds and Biochar Remediation of Heavy Metal-Contaminated Urban Soils in Glasgow - <i>Prudence W Mhlophe, University of Glasgow</i>
10:45 – 11:00	Results From Monitoring Organochlorine Pesticides and Polychlorinated Biphenyls in Soils Surrounding a Hexachlorocyclohexane Dump Site - <i>Marinela Cvetanoska, Faculty of Natural Sciences and Mathematics, University "Ss. Cyril and Methodius"</i>

11:00 – 11:15	Fate And Transport of Emerging Pollutants in Coastal Environments Affected by Organic Soil Amendments - <i>Aurora Bakaj, Faculty of Technical and Natural Sciences, University "Ismail Qemali" of Vlora</i>
11:15 – 11:45	<i>Coffee break</i>
11:45 – 12:25	Keynote lecture 2: Emerging contaminants in organic soil amendments - <i>Thomas Bucheli, Agroscope</i>
12:25 – 12:40	Environmental behavior and fate of Bioplastics in Soils - <i>Sara Adeleh, Forschungszentrum Jülich GmbH</i>
12:40 – 12:55	Evaluating The Role of Biochar in The Transport Behavior of Chlorinated Phenols in Alluvial Soil Systems - <i>Tamara Apostolović, University of Novi Sad Faculty of Sciences</i>
12:55 – 13:00	Wrap up - <i>Thorsten Hüffer and Thilo Hofmann, University of Vienna</i>
13:00 – 14:00	<i>Lunch break</i>
14:00 – 16:15	Training: Scientific Writing Training (Session chairs Thorsten Hüffer, Roland Bol, Gabriel Sigmund) Introduction to the topic – <i>Gabriel Sigmund, Wageningen University</i> (20 min) Group discussion – moderators <i>Thorsten Hüffer, University of Vienna; Thilo Hofmann, University of Vienna; Roland Bol, Forschungszentrum Jülich GmbH; Gabriel Sigmund, Wageningen University; Heike Knicker, Instituto de la Grasa, Consejo Superior de Investigaciones Científicas; Bruno Glaser, Martin-Luther-Universität Halle-Wittenberg; Lutz Weihermüller, Forschungszentrum Jülich GmbH; Marijana Kragulj Isakovski, University of Novi Sad Faculty of Sciences; Jelena Beljin, University of Novi Sad Faculty of Sciences</i>
16:15 – 16:45	<i>Coffee break</i>
16:45 – 17:30	Good paper vs bad paper, <i>Roland Bol, Forschungszentrum Jülich GmbH</i>
Day 5; 6th June 2025 – Topic 7	
09:30 – 13:00 (11:00 – 11:30 <i>Coffee break</i>)	Round-table breakout sessions ECR career development (Session chair: Thorsten Hüffer) Breakout chairs: <ol style="list-style-type: none"> 1. "Specialised vs Interdisciplinarity careers on the pathway to Impact" - <i>Hans Peter Arp, Norwegian University of Science and Technology</i> 2. "Beyond the University: Career Opportunities in Non-Academic Research Institutions" - <i>Thomas Bucheli, Agroscope</i> 3. „Boost Your Career: How Early Career Researchers Can Engage in EGU Activities" – <i>Heike Knicker, Instituto de la Grasa, Consejo Superior de Investigaciones Científicas</i> 4. „To Professor or Not to Professor? Exploring Academic Career Paths" – <i>Bruno Glaser, Martin-Luther-Universität Halle-Wittenberg</i> 5. „Turning Setbacks into Success: Learning from 'Failures'" – <i>Roland Bol, Forschungszentrum Jülich GmbH</i> 6. "Winning Your First Grant: Marie Curie Fellowships for Postdocs" – <i>Gordana Vlahović - University of Novi Sad</i> 7. „Erasmus+ Mobility: Expanding Your Research and Career Horizons" – <i>Ivana Pejović and Vojislav Prkosovački - University of Novi Sad</i> 8. "Unlocking Opportunities: Leveraging Horizon Europe Twinning for Career Growth" – <i>Snežana Maletić, Nataša Đurišić Mladenović and Đurđa Kerkez - University of Novi Sad; Vladimir Beškoski - University of Belgrade</i>
13:00 – 14:00	<i>Lunch break</i>

14:00 – 15:00	<p>Closing remarks</p> <ul style="list-style-type: none"> - Feedback from participants (moderated by Gordana Vlahović and Srđan Rončević) - Summer School highlights and what lies ahead (Snežana Maletić and Marijana Kragulj Isakovski)
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Name and surname	Title
Poster session 1, 03.06.2525., 17:30-18:30h	
Maia Batsatsashvili, TU Dresden	Deforestation Effects on The Spatial Distribution of C and N In the Soils of a Forested Headwater Catchment in The Eifel, Germany
Jasmina Anojčić, University of Novi Sad Faculty of Sciences	Biochar-Based Electrochemical Sensors for Pesticides Detection in Aquatic Environment
Zhenzhen Li, Forschungszentrum Jülich GmbH	Soil Nutrient Availability and Aggregate Dynamics Under Ditch-Buried Organic Materials in a Wheat-Based Rotation System
Kristina Kalakan, BioSense Institute	Establishing a Soil Health Baseline for Green Infrastructure: Sampling Natural and Semi-Natural Areas in Agricultural Landscapes
Nikolina Dizdar, Institute of Field and Vegetable crops	Macronutrient (NPK) Content in Different Types of Organic Fertilizers
Betelhem Mekonnen Muluneh, Deutsches Biomasseforschungszentrum gemeinnützige	Ethiopia Tests Integrated Soil Fertility Management Employing Biochar-Based Fertilizer
Sijia Wang, Forschungszentrum Jülich GmbH	Futures of Plant-Soil Nitrogen Cycling Feedbacks Under Global Climate Change – Critical Experimental Assessment Using The Large-Scale Mesocosm Research Facility AgraSim
Milorad Živanov, Institute of Field and Vegetable crops	Industrial Compost - Soil Enhancer in Maize Production
Aleksandar Piperevski, Faculty of Agriculture, Goce Delcev University	Soil Health – An Evidence for The Biogeochemical Indicators on Regional Vs. Global Scale
Zygimantas Kidikas, SME Biovala, Vytautas Magnus University	Regional Differences of IPCC Tier 1 and Tier 2 Factors in Lithuanian Croplands
Poster session 2, 04.06.2525., 17:30-18:30h	
Stefan Mijatović, University of Novi Sad Faculty of Sciences	Environmental Impact of Biochar Application
Irina Jevrosimov, University of Novi Sad Faculty of Sciences	Environmental Fate of Melamine: Biotransformation in Soil Systems
Dunja Anđelić, Institute of Field and Vegetable crops	The Content of Organic Matter, Organic Carbon and C/N Ratio in Different Types of Organic Fertilizers
Milica Škorić, Institute of Field and Vegetable crops	Determination of Glyphosate Residues in The DTD Canal in Novi Sad

Dušan Rakić, University of Novi Sad Faculty of Technology	Comparison of Two Methods for Extraction Contaminants of Emerging Concern from Soil Samples
Ivana Bajić, Institute of Field and Vegetable crops	Phytoremediation Potential of Energy Crops and PGPR Inoculants for The Remediation of Contaminated Soils
Nadežda Stojanov, Institute of Field and Vegetable crops	The Potential of Field Crops for Phytoextraction of Heavy Metals from Dredged Sediment
Jelena Dimitrijević, Institute for Technology of Nuclear and Other Mineral Raw Materials	Efficient Copper Adsorption from Wastewater Using KOH-Modified Oat Straw: A Sustainable Biomass Solution
Manish Kumar Sah, Mahendra Morang Adarsh Multiple Campus	Interaction of Remalan Brilliant Blue R dye With N-Alkyltrimethylammonium Chloride Surfactants: Conductometric And Spectroscopic Investigations
Burcu (Uyusur) Kiran, TUBITAK Marmara Research Center	SMART4ENV Project: Enhancing the Scientific Capacity of TUBITAK MAM in the Field of Smart Environmental Technologies for Climate Change Challenges
Biljana Balabanova, Goce Delcev University	Advanced Spatial Modelling for Metals Distribution Due to The Longtime Mining Activities
Sana Ullah, Lithuanian Research Centre for Agriculture and Forestry	Compost Relieves Metal Toxicity and Health Risks and Endures Lettuce Plants in Metal Polluted Soils with Different pH Levels

