

# 2022

# INTERNATIONAL SOIL SCIENCE SYMPOSIUM on

#### **SOIL SCIENCE & PLANT NUTRITION**

(7<sup>th</sup> International Scientific Meeting)

2 - 3 December 2022

Samsun, Türkiye

#### **Editors**

Dr.Rıdvan KIZILKAYA Dr.Coşkun GÜLSER Dr.Orhan DENGİZ

#### Organized by

Federation of Eurasian Soil Science Societies Erasmus Mundus Joint Master Degree in Soil Science (emiSS) Programme









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#### **WELCOMING & OPENING SPEECH**

HOUR	ROOM A	
09:30-10:15	<b>Opening Speech</b>	Garib MAMMADOV, President of FESSS
	<b>Opening Speech</b>	Ayten NAMLI, President of Soil Science Society of Turkey
	<b>Welcoming Speech</b>	Rıdvan KIZILKAYA, Chair of Symposium
	<b>Welcoming Speech</b>	Coşkun GÜLSER, Coordinator of emiSS

	Welcoming Speech Ridvan KIZILKAYA, Chair of Symposium		
	Welcoming Speech Coşkun GÜLSER, Coordinator of emiSS		
HOUR			
	Chair : Orhan DENGİZ		
	Influence of surfactant-based wetting agent applications on the content and		
	distribution of extractable macronutrients and labile organic carbon fractions		
	of a drip-irrigated sandy soil		
	Cansu ALMAZ, Recep Serdar KARA, Markéta MIHÁLIKOVÁ, Svatopluk MATULA,		
	Renata DUFFKOVÁ, Petr FUČÍK		
	Sensitivity of soil organic matter indicators to long-term (<50 yrs.) application		
	of mineral nitrogen in Cambisol in Serbia		
	Elmira SALJNIKOV, Nikola KOKOVIĆ, Vladan UGRENOVIĆ, Aneta BUNTIĆ,		
	Tara GRUJIĆ, Ljubomir ŽIVOTIĆ, Goran JAČIMOVIĆ		
	Peculiarities of the formation of grain sorghum hybrids biometric indicators		
	with the application of microfertilizers and growth regulators		
40.00.40.00	Lesia KARPUK, Oksana TITARENKO, Andrii PAVLICHENKO		
10:30-12:00	Family net vessel compost technology: Best way to manage Kitchen waste		
	Asha SAHU, M.C. MANNA, Sudeshna BHATTACHARJYA, J.K. THAKUR, A. MANDAL,		
	A.B. SINGH, A.K. PATRA		
	Effect of lantana based fertilizer enriched biochar application on soil		
	properties and onion productivity		
	Poonam BHATT, Keshab Raj PANDE, Prashant Raj GIRI		
	Topsoils nutrient dynamics of compound farms in the upper and lower slopes		
	of University of Nigeria, Nsukka		
	B.O. OKORIE, E.C.CHUKWU, O.A. EZEIFEKA, K.U.UKWUABA, C.L.A. ASADU,		
	C.P.UMEUGOKWE, C.J. AYOGU, V.I.EZEAKU		
12:00-13:00	BREAK		
	Chair: Tomasz ZALESKI		
	Effects of rhizosphere microbiome on alleviate environmental stress on		
	strawberry crop: A review		
13:00-14:30	Mohammed GAMAL , Ridvan KIZILKAYA		
	Response of microbial consortia on nutrient uptake and soil health under		
	soybean crop in Central India		
	Shubham SINGH, N.G. MITRA, R.K. SAHU		
	Vermicompost: A gateway to sustainable agriculture production		
	Muhammad Danish TOOR, Rıdvan KIZILKAYA		
	Exploring the role of microbial autotrophic and heterotrophic contributions		
	in soil carbon dynamics in semi-arid to sub-humid central India		
	Sudeshna BHATTACHARJYA, Namrata PAL, Asha SAHU, A.B. SINGH		
	Use of product containing free nitrogen-fixing bacteria (biofertilizer) as a		
	supplement in nitrogen fertilization of crops		
	Tursynbek KAIYRBEKOV, Andon VASILEV, Lyubka KOLEVA-VOLKOVA,		
	Rıdvan KIZILKAYA		
	Composting process of organic materials		
	Abdurrahman AY, Salih DEMİRKAYA		
	supplement in nitrogen fertilization of crops Tursynbek KAIYRBEKOV, Andon VASILEV, Lyubka KOLEVA-VOLKOVA, Rıdvan KIZILKAYA Composting process of organic materials		



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HOUR	
	Chair : Markéta MIHALIKOVA
	Wind damages monitoring on vine yard to select the right location in
	Gobustan District - Ulviyya MAMMADOVA
	Estimation of soil aggregate stability by different regression methods - Pelin
	ALABOZ, Orhan DENGİZ, Fikret SAYGIN
	Soil resistance to vertical penetration and saturated hydraulic conductivity of
	fine-textured agricultural soil under controlled drainage - Kamila BÁŤKOVÁ,
14:45-16:15	Svatopluk Matula, Markéta MIHÁLIKOVÁ, Lemma Adane TRUNEH, Recep Serdar
21110 20120	KARA, Cansu ALMAZ, David Kwesi ABEBRESE
	How does salt-stress affect on plant growth and yield? - Mahmuda BEGUM,
	Coskun GULSER, Sapana PARAJULI
	Effect of compost surface application without incorporation on soil
	temperature, air temperature above the soil surface and water content -
	Samantha YAMAMOTO, Markéta MIHÁLIKOVÁ, Cansu ALMAZ, Recep Serdar KARA,
	Kamila BÁŤKOVÁ, Petr DVOŘÁK, Martin KRÁL
	Effects of biotic and abiotic stress factors on evapotranspiration rate of
16:15-16:30	pepper plant - Zeynep ASLAN, Miray ARLI SÖKMEN, Coskun GULSER BREAK
10:15-10:30	
	Chair: Ivan MANOLOV
	Different tree species effecting the soil sorption properties of post fire areas;
	A comprehensive review - Mukkaram EJAZ, Agnieszka JÓZEFOWSKA  Recyclable organic amendments to improve soil quality - Razia Sultana SHAKY,
	Coskun GULSER
16:30-18:00	Organic carbon dynamics under different land use systems of Assam - Goutam
	PARIDA, Shrila DAS, Prasenjit RAY, Ruma DAS, M.C. MEENA, Ranjan BHATTCHARYYA,
	R.K. SINGH
	Potential of using fly ash as amendment for soil characteristics - Sinan ABU AL
	HAYJA, Coskun GULSER, Maia AZAB
	Effects of pyrolysis temperature and time on biochar procedures - Salih
	DEMİRKAYA, Abdurrahman AY
	Relationship between land surface temperature and moisture of soils in
	Shamakhi District - Narmin ALISOY
18:00-18:15	BREAK
	Chair : Coşkun GÜLSER
	Detection of soil-borne viral and protozoal pathogens by simultaneous
	extraction of total nucleic acids from sugar beet roots - Sevilay KAYA, Sena
	ÇANKAYA, Nazlı Dide KUTLUK YILMAZ
18:15-19:15	Investigations on soil-borne viruses and their vectors in sugar beet production
	areas of Ankara and Konya provinces - Vedat CEYLAN, Nazlı Dide KUTLUK YILMAZ
	Water stress efficacy on soil borne diseases - Neșe DALBASTI, Berna TUNALI
	Oribatid mites from mushrooms growing in natural forest soils in Kastamonu
	Province, Turkey - Onur ÖZYÜREK, Merve YAŞA, Sebahat K. OZMAN-SULLIVAN
	Potential of organic amendments on reclaiming the soil properties affected
	under alkaline and/or sodic condition - Sapana PARAJULI, Coskun GULSER, Mahmuda BEGUM
	Land evaluation for sustainable land management with multi-criteria decision
	making and linear combination technique: A case study in Samsun-Kavak
	District - Arif AYDIN, Orhan DENGİZ, İsmail Fatih ORMANCI
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HOUR	
	Chair : Orhan DENGİZ
	Young scientists: The new international union of soil sciences' working group
	Axel CERÓN-GONZÁLEZ, Bartłomiej GLINA
	Remote estimation of the relationship between erosion risk classes using the
	Neutrosophic Fuzzy-AHP and RE-OSAVI for Sinop Province, Turkey - Nursaç
	Serda KAYA, Orhan DENGİZ, Mert DEDEOĞLU
	Comparison of GIS-based interpolation methods for spatial distribution of soil
	properties: A case study of Jajmau, Kanpur - Nisha SAHU, J. K. SAHA, Rahul
08:45-10:15	MISHRA, Nishant SINHA, Mrunalini KANCHETI, H. BISWAS, A. K. PATRA
	Sandy soils in Poland: Exploring research constituents - Axel CERÓN-GONZÁLEZ
	State of art approaches, insights, and challenges for digital mapping of
	electrical conductivity as a dynamic soil property - Fuat KAYA, Caner
	FERHATOĞLU, Yavuz Şahin TURGUT, Levent BAŞAYİĞİT
	Feasibility of re-involvement of the fallow soddy-podzolic soil in cultivation
	Andrey LITVINOVICH, Anton LAVRISHCHEV, Vladimir BURE, Tara GRUJIĆ, Elmira
	SALJNIKOV
10:15-10:30	BREAK
10.13-10.30	Chair : Kamila BÁŤKOVÁ
	Agroecological significance of ecofertile biostimulant on tropical soils and crop improvement - David Tavi AGBOR, Darina ŠTYRIAKOVÁ, Orhan DENGIZ
	Determination of the agricultural use potential of bio additive organomineral
	fertilizers by incubation experiment - Ayten NAMLI, Muhittin Onur AKCA, Duygu
10:30-12:00	BOZDOGAN, Esra KUTLU, Nihal Ceren ALICI SUNGUR, İzzet MOLA
10:30-12:00	Exploring the soil fertility and plant nutrition potential of LAB isolated from
	palm wine and sha'a - Desmond Kwayela SAMA, David Tavi AGBOR, John Dohbila
	DOHNJI, Ridvan KIZILKAYA  Microelement composition of soils (Basegi Ridge, Middle Urals) and its spatial
	differentiation - Iraida SAMOFALOVA
	Evaluation of strawberry cultivars based on growth related attributes under
	open field condition - Izhar ULLAH, Dilek SOYSAL, Adis LIZALO, Hasan Hamid
	RASHID, Derviş Emre DOĞAN, Leyla DEMIRSOY
	Potential role of salicylic acid on drought stress tolerance of strawberry
	plants - Mohammed G.DAKHEEL Izhar ULLAH, Derviş Emre DOĞAN, Leyla DEMİRSOY
12:00-13:00	BREAK
12:00-13:00	Chair: Agnieszka JÓZEFOWSKA
	Soil organic carbon stock in post-mine sites after reclamation with various tree species: A review - Haroon ILAHI, Agnieszka JÓZEFOWSKA, Rıdvan KIZILKAYA
13:00-14:30	Determination of desertification risk for pasture areas under semi-arid
	<u> </u>
	ecological conditions using DIS4ME model and estimation with artificial
	neural network - Emin SAFLI, Sena PACCİ, Orhan DENGİZ
	System of measures for soil erosion and protection - Narmin NAJAFOVA
13.00 11.30	Environmental problems of technogenic land pollution - Samira NADJAFOVA,
	Meherrem BABAYEV
	Heavy metals in urban soils: A systematic literature review using R Studio
	María Camila Herrera COY  Direct goving of rainfed winter wheat and in axid region of South Vegelshaten
	Direct sowing of rainfed winter wheat and in arid region of South Kazakhstan
	Elmira SALJNIKOV, Sagadat TUREBAYEVA, Aigul ZHAPPAROVA, Mira MILINKOVIĆ,
14.00 14 15	Vladan UGRENOVIC, Vladimir MILADINOVIC, Aneta BUNTIC
14:00-14:45	BREAK





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HUUK		
	Chair : Lesia KARPUK	
	Comparison of phenotypic and cytogenetic characteristics analysis of Hibiscus	
	syriacus and Hibiscus moscheutos - Yaqoob SULTAN, Muhammad IMRAN	
	Possibility of using vermicompost to improve oil plants productivity	
	Maia AZAB, Rıdvan KIZILKAYA, Sinan ABU AL HAYJA	
	The changes in growth criteria of Lettuce (Lactuca sativa) with salicylic	
	acid application under salt stress - Salar M.A. SALEM, Füsun GULSER	
14:45-16:15	Evaluation of potato varieties of domestic and foreign breeding for	
	organic production in the conditions of the south-east of Kazakhstan	
	Nurbol BUDANOV	
	The use of leonardite in agriculture - Sahbatullah HAIDARI, Ayhan HORUZ	
	Effect of different salt contents in irrigation water on some growth	
	parameters of sorghum plant - Elif ÖZTÜRK, Salih DEMİRKAYA, Abdurrahman AY,	
	Coşkun GÜLSER	
16:15-16:30	BREAK	
	Chair: Michał GĄSIOREK	
	A meta-analysis of heavy metals pollution in European soils under a strong	
	anthropogenic pressure - Tamara MEIZOSO REGUEIRA  Oil polluted spile: Poview, Which Captan FUNCA Tomasa 7ALESKI Orban DENCIZ	
	Oil polluted soils: Review - Ulrich Gaetan FUNGA, Tomasz ZALESKI, Orhan DENGIZ  Review of the phytoremediation potential of Sedum plumbizincicola for the	
	remediation of contaminated soils - Onyinye EZEIFEKA, Angelova VIOLINA, Coşkun	
16:30-18:00	GÜLSER	
	Effects of conditioner application on dispersion ratio in clayey soil - Nutullah	
	ÖZDEMIR , Ömrüm Tebessüm KOP DURMUŞ	
	Effects of polymer applications on soil stability - Nutullah ÖZDEMIR, Hachim	
	KASSIM	
	Land degradation and melioration measures - Salim SALİMLİ	
18:00-18:15	BREAK	
	Chair: Füsun GÜLSER	
	Investigation of the effects of forest fire in the national park "Bohemian-Saxon	
	Switzerland" near Hřensko on air, soil and vegetation in Bohemia Region	
	using remote sensing technology - Furkan YILĞAN *, Markéta MIHÁLIKOVÁ	
	Field-scale digital soil mapping of mobile zinc: Combining different digital	
	covariates and comparing geostatistical and machine learning models -	
	Natalya GOPP, Fuat KAYA, Ali KESHAVARZİ	
	Determination and mapping of pH indicators in Kurmukchay basin soils	
18:15-19:15	Qani QASIMOV	
	Hazelnut cultivation Black Sea region in Turkey: Future challenges and sustainable solutions -Nejc SUBAN, Orhan DENGİZ	
	Physical and chemical properties of the Black Sea region hazelnut growing	
	soils - Yasemin YAVUZKILIÇ, Coskun GULSER	
	Determination of landslide susceptibility with the help of analytical	
	hierarchical process- Suşehri example - Fikret SAYGIN, Orhan DENGİZ, Pelin	
	ALABOZ	
	Comparison of physical soil quality of surface and subsurface soils affected by	
	long-term cultivation based on SOC-stock - İsmail Fatih ORMANCI, Orhan DENGİZ	
	Importance of silicon in agriculture - Hüseyin AYDIN, Rıdvan KIZILKAYA,	
40.47.45.5	Abdurrahman AY	
19:15-19:30	CLOSING SPEECHS	

