



## 9<sup>th</sup> International Congress

*Tirana, Albania 26-28 September 2019*

---

**Soil's Contribution to People:  
from Food to Life Supporting Services**

## *Program*

*oral and poster presentation*

# Oral presentations

## 26 September 2019

	Time	
	09.00 - 09.30	<b>Opening Ceremony</b> <b>Fahri Musabelliu</b> , Rector of the Agricultural University of Tirana <b>Fatbardh Sallaku</b> Dean of the Faculty of Agriculture and Environment <b>Carmelo Dazzi</b> , President of the European Society for Soil Conservation <b>Pandi Zdruli</b> , President of the Congress Organizing Committee
		<b>Greetings from local authorities and invited guests</b>
Lecture	09.30 – 10.00	<b>Soil productivity, a major challenge</b> (Sybe Schaap)
		<b>SESSION 1: Chairs Carmelo Dazzi &amp; Pandi Zdruli</b>
Nr		<b>TOPICS: 1; 2; 10</b>
		<b>Title</b>
1	10:00 - 10:20	<b>Land consolidation: an approach for sustainable development in rural Albania</b> ( <u>Fatbardh Sallaku</u> , Seit Shallari, Ilir Kristo, Fato Huqi, Pandi Zdruli, Irfan Tarreli)
2	10:20 – 10.40	<b>Multiple pesticide residues in agricultural soils – a reason to worry?</b> ( <u>Violette Geissen</u> , Esperanza Huerta, Coen Ritsema, Michel Riksen, Hennie Gertsen, Zhaoqi Bin, Nicolas Beriot, Vera Silva)
3	10:40 – 11.00	<b>Black soil agroecological assessment for durum wheat sustainable production in the Middle Volga and Southern Ural Regions of Russia</b> ( <u>Ivan I. Vasenev</u> , Alexey M. Yaroslavtsev)
	<b>11:00-11:20</b>	<b>Coffee break</b>
4	11:20-11:40	<b>Wild boar and red deer might be beneficial for the biodiversity of forest soils</b> ( <u>László Szemethy</u> , Sándor Némethy)
5	11.40 -12.00	<b>On-farm comparison of soil fertility between conventional and conservative agricultural systems in the Po Valley</b> ( <u>Alessia Perego</u> , Calogero Schillaci, Marco Acutis)
6	12:00-12:20	<b>Preserving the sustainability of field crop systems: overview of 50 years of trials in Switzerland</b> ( <u>Sokrat Sinaj</u> , Bernard Jeangros)
7	12:20 - 12.40	<b>Enzymatic activity of selected benchmark soils of the North Eastern part of the Moldavian Plateau, Romania</b> ( <u>Geanina Birescu</u> , Carmelo Dazzi, Giuseppe Lo Papa)
	12:40 – 13:00	Closing questions and discussions
	<b>13:00-14:00</b>	<b>Lunch buffet</b>
		<b>SESSION 2: Chairs Violette Geissen &amp; Ivan Vasenev</b>
		<b>TOPICS: 4; 5; 9</b>
		<b>Title</b>
Lecture	14:00-14:30	<b>Pedotechniques to promote conservation of soil ecosystem services in tree crops</b> (Edoardo A.C. Costantini)
1	14:30-14:50	<b>Relationships between pedotechniques, soil security and ecosystems services</b> ( <u>Carmelo Dazzi</u> , Antonino Galati, Maria Crescimanno, Giuseppe Lo Papa)

2	14:50-15:10	<b>Global soil erosion assessment and mapping</b> ( <u>Rui Li</u> , Baoyuan Liu, Qinke Yang, Shaoshan An, Juying Jiao, Minghang Guo, Chunmei Wang, Guowei Pang, Lei Wang, Hongming Zhang, Panos Panagos, Pasquale Borrelli)
3	15:10-15:30	<b>Agroecological assessment of the black soil degradation in the Middle Volga and Central Chernozemic regions of Russia</b> (Sabir R. Ramazanov, <u>Ivan I. Vasenev</u> , Ivan M. Yashin)
4	15:30-15:50	<b>Determination of the extent of soil unprotected by vegetation in the period of erosive rainstorms</b> ( <u>Josef Krása</u> , Adam Tejkl, Jakub Stašek, Tomáš Dostál)
	<b>15:50-16:20</b>	<b>Coffee break</b>
5	16:20-16:40	<b>Soil loss due to sugar beet harvesting in Eastern Romania</b> ( <u>Lilian Niacșu</u> , Ionuț Vasiliniuc)
6	16:40-17:00	<b>Training indigenous farmers as land rehabilitators: the Bedouin farmers of Rahma, northern Negev initial findings and perspectives for future work</b> ( <u>Amir Mor-Mussery</u> , Debbie Golan, Yael Agmon)
	17:00 – 17:20	Closing questions and discussions
	<b>17:20-18:00</b>	<b>Poster session</b>
		<b>End of first day</b>

## 27 September 2019

SESSION 3: Chairs Fatbardh Sallaku & Giuseppe Lo Papa		
TOPIC: 3		
Nr	Time	Title
Lecture	09:00-09:30	<b>Land Degradation under New “Industrial” Agricultural Developments: Effects on Food Production and Soil Ecosystem Services</b> (Ildefons Pla Sentís)
1	09:30-09:50	<b>Conservation of coastal soils and measures integrated for the conservation of <i>Calendula maritima</i> Guss. in western Sicily (Italy)</b> ( <u>Giuseppe Lo Papa</u> , Alessandro Gristina, Valentina Pillitteri, Salvatore Pasta, Carmelo Dazzi, Giuseppe Garfi)
2	09:50-10:10	<b>Organic matter Forms at hydromorphism and different soil use of Experimental Station founded by V. V. Dokuchaev in 1892</b> ( <u>Valentina Prikhodko</u> , Yuriy Cheverdin)
3	10:10-10:30	<b>Adapting sustainable land management to wetter climate - examples of best practices</b> ( <u>Lillian Øygarden</u> , Johannes Deelstra,)
4	10:30-10:50	<b>Evaluation of two different modeling approaches for erosion and sediment input assessment</b> ( <u>Klajdi Sotiri</u> , Stephan Hilgert, Chan Zhang, Leonardo Lima da Silva Santos, Stephan Fuchs)
5	10.50 – 11.10	<b>The Effect of soil conservation measures on surface water pollution from non-point sources</b> ( <u>Tomas Dostal</u> , Josef Krasa, Miroslav Bauer, Barbora Jachymova, Jan Devaty)
	<b>11:10-11:30</b>	<b>Coffee break</b>

6	11:30-11:50	<b>Evaluating indices system for ecological benefits of soil and water conservation</b> ( <u>Duihu Ning</u> , Pengfei Du, Liqin Qu, Jingjing Xu)
7	11:50-12:10	<b>Ecological farming – an example of sustainable land management in Slovakia</b> ( <u>Beata Houšková</u> , Jarmila Makovníková, Ján Šlinský, Rastislav Bušo)
8	12:10-12:30	<b>Use of climosequences for estimating the effects of climate change on soil physical features</b> ( <u>Pellegrini S</u> , Agnelli A.E, Andrenelli M.C, Barbetti R, Lo Papa G., Priori S., Costantini E.A.C.)
9	12:30-12:50	<b>What we have yet to understand about redox potential measurements in the soil, a possible game changer</b> ( <u>David Yalin</u> , Moshe Shenker)
	12:50 – 13:00	Closing questions and discussions
	<b>13:00-14:00</b>	<b>Lunch buffet</b>
		<b>SESSION 4: Chairs Beata Houšková &amp; Edoardo Costantini</b>
		<b>TOPICS: 6; 7; 8</b>
Lecture	14:00-14:30	<b>The role of soil on mitigation climate change and food security</b> (José Luis Rubio)
1	14:30-14:50	<b>Assessing soil profiles helps understanding barley-pea mixed cropping efficiency</b> ( <u>Stefano Tavoletti</u> , Stefania Cocco, Francesca Straccia, Ariele Merletti, Valeria Cardelli, Dominique Serrani, Giuseppe Corti)
2	14:50-15:10	<b>The importance of mineral-based soil improvers in organic farming</b> ( <u>Sándor Némethy</u> , Bosse Lagerqvist)
3	15:10-15:30	<b>Microbial biomass phosphorus contribution to the enhanced leaching of dissolved reactive phosphorus in grassland soil previously dried</b> ( <u>Sidra Khan</u> , Peter S. Hooda, Martin Blackwell, Rosa Busquets)
4	15:30-15:50	<b>Practices of organic fertilizers application for organic carbon management in Ukrainian Chernozems</b> (Ievgen Skrylnyk, <u>Viktoriiia Hetmanenko</u> , Angela Kutova)
	<b>15:50-16:20</b>	<b>Coffee break</b>
5	16:20-16:40	<b>Restoring dryland soils through cyanobacterial inoculation: current practical challenges</b> ( <u>Yolanda Canton</u> , Raúl Román, Beatriz Roncero-Ramos, Borja Rodríguez-Lozano, Sonia Chamizo, Emilio Rodríguez-Caballero)
6	16:40-17:00	<b>Effects of climate change on beech forest soil resilience – focus on chemical and biochemical properties</b> ( <u>Valeria Cardelli</u> , Mauro De Feudis, Dominique Serrani, Marziyeh Hoseini, Flavio Fornasier, Luisa Massaccesi, Stefania Cocco, Alberto Agnelli, David C. Weindorf, Giuseppe Corti)
	17:00-17:20	Closing questions and discussions
	<b>17:20-18:00</b>	<b>Poster session</b>
		<b>End of second day</b>
	<b>20:30-23:00</b>	<b>Social dinner</b>

# Poster presentations

## Scientific Session 1

### Topics:

- 1 - Management of soil functions and services: monitoring and remediation.
- 2 - Soil conservation issues in organic farming, agro-ecology and conservation agriculture.
- 10 - National and international efforts to promote data collection and sharing on soil services

1	Soils and Organic Waste Management: New Strategies to Increase Their Ecological Capital (Carlos Garcia, Teresa Hernandez)
2	Management of soil services in the boreal forests (Marie Jířhová, Eero Kubin, Josef Křeček)
3	Management of Soil Functions and Services by Wild Boar – Impairments or Effects? (Csaba Centeri, Enikő Horváth, Krisztián Katona, Zsolt Biró, Dávid Sütő)
4	Assessing Soil Erosion Vulnerability in Lesser Himalayan Region through Application of Grey Relational Analysis (Shachi Pandey, Raman Nautiyal, Parmanand Kumar, Vijender Pal Panwar)
5	Impact of soil conservation methods on runoff and soil erosion rates in the Harod Valley, Israel (Nadav Bekin, Jonathan B. Laronne, Roey Egozi)
6	How does root biodegradation after plant felling change root reinforcement to soil? (Jinqi Zhu, Yunqi Wang, Yujie Wang)
7	Impact of Land Use on Soil and Nutrient Losses under Increasing Rainfall Intensities (María Concepción Ramos, Ivan Lizaga, Leticia Gaspar, Laura Quijano, Ana Navas)
8	How Does Tillage Maintain Soil Production and Combat Intensive Soil Erosion? (Jianhui Zhanga, Haichao Xua,, Jiadong Daia, Yong Wang)
9	Corn-cob-derived low-pyrolysis temperature biochar protects soil organic (C) and improves C use efficiency and soil quality of semi-arid climate alkaline soil (Muhammad Riaz1, Muhammad Saleem Arif, Qaiser Hussain, Samar Fatima, Tahira Yasmeen, Muhammad Arif)
10	Short-term Effect of Restoration Practices on Physical Properties of Two Vineyard Soils in Italy (Vignozzi N., Pellegrini S., Valboa G., Agnelli A.E., L'Abate G., Andrenelli M.C., Costantini E.A.C., Priori S.)
11	Impact of drying-wetting cycles on the soil aggregate stability of Alfisols in southwestern China (Yujie Wang, Bin Wang, Yunqi Wang, Bo Hu)
12	Improved interrill erosion prediction by considering the impact of the near-surface hydraulic gradient (Chenfeng Wang, Bin Wang, Yunqi Wang, Yujie Wang, Wenlong Zhang)
13	Creation and Evaluation of a Database on Heavy Metal Concentrations in Albanian Soils for Determining Background Values (Fran Gjoka, Jan Siemens, Rolf-Alexander Duering)
14	Soil Landscape Functions in a Solar and Saltwater Age: No to the Anthropocene (Anton Imeson, Henk Alkemade)
15	Arthropod diversity in soils vulnerable to desertification (Gabiella Lo Verde, Camillo Cusimano, Tommaso La Mantia, Rafael Da Silveira Bueno, Paola Quatrini)
16	The Use of Biological Fertilizers for Wheat Crop as a Partial Replacement of the Mineral Nitrogen Fertilizers Harmful To the Environment (Essameldeen A. Ebaid)

## **Scientific Session 2**

### **TOPICS:**

- 4 - Pedotechniques in large-scale farming and advances in soil survey and soil classification
- 5 - Land Degradation Neutrality and food security.
- 9 - From research to policies supporting soil ecosystem services

17	Agroecological assessment of Sod-Podzoluvisols in the Yuryev-Polish plain (Yashin I.M., Atenbekov R.A., Vasenev I.I.)
18	Land degradation and natural regeneration of soil fertility in impacted area caused by the alluvial gold mining in the Peruvian amazon (Manuel Velásquez I; Juan Guerrero; Alfredo Gamarra; Rubén Bazán; Julio Nazario; Lily Tello)
19	General overview regarding the pressures driving land degradation and soil threats in Albania (Seit Shallari, Fatbardh Sallaku, Petrit Harasani, Vjola Bakillari and Ilir Kristo)
20	High resolution spatiotemporal analysis of erosion risk per land cover category in Korçe region, Albania (Pandi Zdruli, Christos G. Karydas, Klarent Dedaj, Ilir Salillari, Florjana Çela, Sherif Lushaj & Panos Panagos)
21	Mechanism of Water Resources Conservation and Recharge of Forest and its Ecological Function Value Evaluation in Jinyun Mountain, China (Cheng Yun)
22	Geosites and pedosites in the park of the Nebrodi (Salvatore Armeli, Vincenzo Cartillone, Massimo Geraci, Maria Rosaria la Rosa, Michele Orifici)
23	Technosols for Remediation of Degraded Range and Agricultural Soils. Properties and Hydrological Behavior (Lourdes Luna, Roberto Lázaro, Albert Solé-Benet)
24	Mapping carbon storage on Szentendre island, Hungary (Lyndré Nel, Csaba Centeri, Eszter Kovács)
25	Comparison of some ecosystem service related soil characteristics of conventional, organic and permaculture farms in Szentendre Island, Hungary: an explorative case study (Alfréd Szilágyi, Enikő Horváth, Anna Kolár, Csaba Centeri, Péter Nagy, Barbara Simon, Eszter Kovács, András Sebők)
26	The potential of regulating ecosystem service (filtering potential for inorganic pollutants) supplied by soils in Slovakia (Jarmila Makovníková, Beata Houšková, Boris Pálka)

## **Scientific Session 3**

### **Topic:**

Sustainable Land Management in a changing environment: examples from best practices.

27	Suitable Land Management Practices Can Improve Soil Ecosystem Services (Stefano Brenna and Marco Sciacaluga)
28	Mechanical Overgrazing – The Story of Israeli Agriculture (Galit Hermann, Dafna M. Disegnic Gil Eshel)
29	Assessment of climatic variability on optimal N in long-term rice cropping system (Sabina Devkota, Ando M.Radanielson)

30	Aerobic thermophilic co-composting of solid digestate with original anaerobic digestion feedstock for better quality of digestate (Biyensa Gurmessa, Ester Foppa Pedretti, Giuseppe Corti, Stefania Cocco, Valeria Cardelli, Alessio Ilari)
31	Differences in Soil Aggregate Stability in Soils under Conventional Tillage and No-Tillage after Different Disaggregation Forces (Luca Grandinetti, Daniel Plaza-Bonilla, Jorge Lampurlanés, Carlos Cantero-Martínez, María Concepción Ramos)
32	Barriers and Drivers of Agro-Ecological Transitions in Intensive Agricultural Areas: Perspectives of Soil Conservation Farming in Promoting Agro-ecological Considerations - a Case Study from Hungary (Katalin Balázs, László Podmaniczky, Alfréd Szilágyi, Péter Tóth)
33	Structural and Hydraulic Feedbacks in Humic Tropical Soils Amended with Aglime and Organic Residues (Ronen C.A. Francis, Mark N. Wuddivira, Gregory A. Gouveia, De Shorn Bramble)

### **Scientific Session 4**

#### **TOPICS:**

6 - Soil contamination across various scales and remediation practices

7 - Soil fertility and plant nutrition

8 - Soil carbon sequestration to combat and mitigate climate change

34	Evaluating the quality of coffee husk and brewers' spent grain composts by microbial diversity, enzyme activity and physical parameters (Marziyeh Hoseini), Cristiano Casucci, Dominique Serrani, Stefania Cocco, Valeria Cardelli, Giuseppe Corti)
35	Sewage Sludge Addition Increases the Efficiency of Phytoremediation in an Aged Refinery Oil-sludge Polluted Soil (Teresa Hernandez and Carlos Garcia)
36	Soil reclamation in phosphate mining in a semi-desert area in Kazakhstan: a case study (Giuseppe Lo Papa, Murat Toktar, Farida E. Kozybayeva, Carmelo Dazzi)
37	Warfare Soilscales – Between Remediation and Conservation (Ionuț Vasiliu, Constantin Rusu, Radu Gabriel Pîrnău, George Rusu, Bogdan Roșca)
38	Influence of Climate Change-Driven Drying and Flooding on Soil Phosphorus Mobilisation (Sidra Khana, Peter S. Hooda, Martin Blackwell, Rosa Busquets)
39	Cover Crops Sowing Dates And Species Effects On Cover Crop N uptake and Maize Production (Mortadha Ben Hassine, Pietro Marino Gallina, Daniele Cavalli, Martina Corti, Stefano Toninelli, Daniele Della Torre, Lorenza Michelon, Alberto Merli, Massimo Motti, Luca Bechini)
40	Is lack of oxygen the silent culprit behind decay of treated wastewater-irrigated orchards planted in clay soils? (David Yalin; Roe Gothelf; Shmuel Assouline; Kfir Narkis; Diriba B. Namera; Shabtai Cohen; Guy Levi; Asher Bar-Tal, Amnon Schwartz; Amram Eshel; Alex Furman, Jorge Tarchitzky; Moshe Shenker)
41	How does soil characteristics affect plant behaviour in an annual grass-legume association (Evan Rroço, Platin Hamati, Klaudia Kamani)
42	Accumulation of Heavy Metals in Vegetables Planted in Serpentine Soils of South East of Albania and the Health Risk Assessment (Aida Bani Xhuljo Sema, Seit Shallari, Irena Duka)
43	Horizontal and Vertical Carbon Distribution of Eroded and Buried Soil Profiles Along Some Small Catenas (Gergely Jakab, István Hegyi, Zoltán Szalai, Judit Alexandra Szabó, László Takács, Boglárka Keller, Csaba Centeri)

44	Contribution of Above- or Below-ground C-inputs to Soil Organic Carbon? – Conclusions from A 13C/12C-Resolved Resampling Campaign of Belgian Sandy Cropland After 30 Years (Hui Xu, Bart Vandecasteele, Steven Sleutel)
45	The Impact of Aglime on Soil CO <sub>2</sub> Emissions is Mediated by Organic Residue Addition (De Shorn Bramble, Gregory Gouveia, Venercia Herelle, Ravindra Ramnarine, Bryan Smith, and Richard Farrell)
46	Influence of Land Degradation on Ventilation and Pressure Tidal Effect in the CO <sub>2</sub> Exchange: Evidence from Two Semi-arid Grasslands in the Southeast of Spain (María Rosario Moya Jiménez, Enrique P. Sanchez-Cañete, Andrew S. Kowalski, Penélope Serrano-Ortiz, Ana López-Ballesteros, Cecilio Oyonarte and Francisco Domingo)
47	Do Maize Roots and Shoots Have Different Degradability Under Field Conditions? -A One-year Field study of 13C Natural Abundance Resolved CO <sub>2</sub> Emissions (Hui Xu, Bart Vandecasteele, Steven Sleutel)
48	The Effect of Soil Conservation Measures on Surface Water Pollution from Non-Point Sources (Dostal Tomas, Krasa Josef, Bauer Miroslav, Jachymova Barbora, Devaty Jan)

### **Topics of the Scientific Sessions**

1. Management of soil functions and services: monitoring and remediation.
2. Soil conservation issues in organic farming, agro-ecology and conservation agriculture.
3. Sustainable Land Management in a changing environment: examples from best practices.
4. Pedotechniques in large-scale farming and advances in soil survey and soil classification
5. Land Degradation Neutrality and food security.
6. Soil contamination across various scales and remediation practices
7. Soil fertility and plant nutrition
8. Soil carbon sequestration to combat and mitigate climate change
9. From research to policies supporting soil ecosystem services
10. National and international efforts to promote data collection and sharing on soil services

### **International Scientific Committee**

Wim **Cornelis**, Belgium; Edoardo **Costantini**, Italy; Carmelo **Dazzi**, Italy; Mihail **Dumitru**, Romania; Michael **Fullen**, UK; Donald **Gabriels**, Belgium; Raimonds **Kasparinskis**, Latvia; **Ádám Kertész**, Hungary; Lillian **Øygarden**, Norway; Saulius **Marcinkonis**, Lithuania; Mark **Nearing**, USA; Ildefonso **Pla Sentis**, Spain; Endla **Reintam**, Estonia; José Luis **Rubio**, Spain; Li **Rui**, China; Fatbardh **Sallaku**, Albania, Thomas **Scholten**, Germany; Peter **Strauss**, Austria; Pandi **Zdruli**, Albania.

#### **Local Organizing Committee**

Fatbardh Sallaku (Chairman of the Organising Committee)  
E-mail: [sallaku@albmail.com](mailto:sallaku@albmail.com)  
Tel: ++355 684096180  
Pandi Zdruli (Honorary Chairman)  
Seit Shallari  
Sulejman Sulce  
Ilir Kristo  
Besnik Gjonecaj

#### **Congress Secretariat**

Ferdi Brahusi ([brahusi@hotmail.com](mailto:brahusi@hotmail.com))  
Erdona Docaj  
Romina Kote  
Fatos Huqi  
Klodian Rama  
Adri Erebara  
Aida Bani  
Fran Gjoka