



ISTRO CZ
Czech branch of ISTRO



CROSTRO
Croatian branch of ISTRO



HUISTRO
Hungarian branch of ISTRO

under the auspices of



and in cooperation with



organise

2nd Central European ISTRO Conference (CESTRO)
and
8th International Conference of the Czech ISTRO branch
Trends and challenges in soil-crop management

September, 6 – 8, 2022, Brno, Czech Republic

INVITATION

On behalf of the Organising Committee of the Czech branch of ISTRO (ISTRO CZ), the Croatian Soil Tillage Research Organisation (CROSTRO), and the Hungarian branch of ISTRO (HUISTRO), under the auspice of the International Soil Tillage Research Organisation (ISTRO) and other supporting institutions:

Mendel University in Brno, Faculty of AgriSciences (CZE)

University of J. J. Strossmayer, Faculty of Agrobiotechnical Sciences Osijek (HRV)

Research Institute for Fodder Crops, Ltd. Troubsko (CZE)

Crop Research Institute, Prague (CZE)

Research Institute for Soil and Water Conservation (CZE)

Czech Academy of Agricultural Sciences (CZE)

Czech Society of Soil Science (CZE)

Serbian Soil Tillage Research Organisation (SRB)

We are pleased to invite you to the International Scientific Conference that will take place in Brno, Czech Republic, September 6 – 8, 2022.

For the second time since the association's establishment of our national branches, the Czech Republic, Croatia, and Hungary will organise the 2nd Central European ISTRO Conference (CESTRO) as a joint scientific Conference. From this point of view, we have established a new platform, but on the other hand, we already have quite a long history because it is also the 8th International Conference of the Czech ISTRO branch.

This conference, created for the scientific community and experts from agricultural practice, will cope with the main goals of ISTRO. The primary objective of the conference is the promotion, development and growth of interest and knowledge about soil-crop management, exchange of ideas about trends and challenges in modern agriculture. The conference represents a unique opportunity for learning and exchanging opinions on different topics, which could help harmonise soil and plant health in agroecosystems and mutual cooperation worldwide.

The conference will take place in Brno in 2022 when the 200th anniversary of the birth of Gregor Johann Mendel is commemorated. G. Mendel, the father of modern genetics, whose ideas about inheritance were far ahead of his time, is one of the most famous scientists who lived and worked in Brno.

2nd CESTRO Conference is held under the auspice of the Minister of Agriculture of the Czech Republic Zdeněk Nekula.

This scientific meeting is supported by Ministry of Agriculture - National Agency for Agricultural Research, Project No. QK 1810186 entitled "Agrotechnical measures for improvement of soil structure stability and rainwater infiltration".

*Vladimír Smutný, president of Czech branch of ISTRO
Danijel Jug, president of Croatian branch of ISTRO
Márta Birkás, president of Hungarian branch of ISTRO*

ABOUT THE CONFERENCE

Soil is an ecosystem that can be managed to provide nutrients for plant growth, absorb and retain precipitation for use in periods of drought, filter and buffer potential pollutants leaving our fields, serve as a firm foundation for agricultural activities and provide an environment for the flourishing and diversification of soil microbes that keep the ecosystem running smoothly. Healthy soil is the foundation of profitable, productive, ecologically friendly agricultural systems.

European farmers must adapt to a changing climate, which often means changes in crop management practices and diversification of income sources. Extreme weather and climate events (including droughts and heat waves) can significantly reduce the yields of some crops. The projected increase in the frequency of such events is expected to increase the risk of crop losses, resulting in higher food prices and reduced food security. Opportunities exist to implement a wide range of farm-level measures to improve soil and water management, bringing adaptation, mitigation and environmental and economic benefits.

TOPICS/SESSIONS

1. Soil health assessment

Soil quality is essential for efficient crop production and environmental health because it plays many key roles in the ecosystem. This session is based on an interdisciplinary approach involving soil scientists to characterise the dynamic and living soil–water–plant–atmosphere system. Fundamental soil properties include physical (texture, structure, available water holding capacity, water infiltration rate, bulk density, soil aggregate stability, effective rooting depth), chemical (pH, cation exchange capacity, intensity and capacity of plant available nutrients, electrical conductance and the concentration of soluble salts), and biological (soil organic carbon concentration and stock, microbial biomass carbon, activity and species diversity of micro and macro flora and fauna).

2. Soil management

Soil management is an integral part of land management. It focuses on differences in soil types and properties to define specific interventions that are aimed to enhance soil quality and fertility. Specific soil management practices are needed to protect and conserve soil resources. There are also particular interventions to increase the soil carbon content to mitigate climate change. Reversing the degradation of soil, water and biological resources and enhancing crop and livestock production through appropriate land use and soil management practices are essential elements for achieving food and livelihood security. There are various farming system approaches which differ in productivity and environmental impacts. Conservation agriculture, as a promising direction for the future, has three main goals: minimising soil disturbance, maintaining permanent soil coverage and diversifying crops. Conservation tillage is a suitable approach that leaves the previous year's crop residues on fields, reduces soil erosion and runoff, or brings other benefits such as carbon sequestration. Cover crops play an essential role in this system as well.

3. Sustainable crop production adapted to climate change

Sustainable intensification of crop production is defined as the integration of biological and ecological processes into crop production, optimising the use of non-renewable inputs and improving farmers' knowledge. It is particularly confronted with the threats posed by climate change. The implementation of climate-resilient crop production systems intersects with a range of interventions already being implemented in the crop production sub-sector toward the goal of healthy agro-ecological systems.

These include:

- Increasing genetic diversity at the farm level to improve resilience. Farmers have good potential to adapt crop management practices to changing climatic conditions.
- Integrated pest management (IPM) is an agricultural system that deals with the effective protection against diseases, pests and weeds, which ensures a stable yield and production of quality agricultural products while at the same time reducing the impact of pesticides on human health and the environment. IPM includes preventive tools (crop rotation, soil tillage and seedbed preparation, nutrient management and fertilisation, choice of suitable varieties), monitoring and forecast of harmful organisms and direct methods (biological, mechanical and chemical) based on the determination of thresholds that can cause economic damage.

4. Precision agriculture

Precision agriculture (PA) or precision farming is a modern farming management concept using digital technology to monitor and optimise agricultural production processes. The crop management practices are adapted to the spatial variability of soil and crop requirements in the form of variable application of fertilisers, pesticides, sowing rate and soil tillage. PA methods promise to increase the quantity and quality of agricultural production while using fewer inputs (water, energy, fertilisers, pesticides, etc.). The aim is to save costs, reduce environmental impact and improve food quality.

CONFERENCE VENUE

The conference will be held in the [AVANTI](#) hotel, located on Střední 61, Brno, 602 00, Czech Republic. This hotel is close to the centre of Brno, near Lužánky park. GPS: 49°12'46.17"N, 16°36'16.64"E.



It is not so far from the campus of Mendel University in Brno (MENDELU), Zemědělská 1665/1, 613 00 Brno, Czech Republic (GPS: 49.2102089N, 16.6158772E).

How do you get to the AVANTI hotel?

By CAR

- from Prague, Olomouc and Bratislava

Leave the motorway D1 at exit 190 (Brno-západ), in the direction of Svitavy. After leaving the motorway, go through the first (Pisárky) tunnel and continue along the main road. Go through the second (Královo Pole) tunnel, then turn right towards the centre. Turn right at the second set of traffic lights, and you'll see the hotel.

The journey time from the motorway to the hotel is approx. 10 minutes.

- from Brno city centre

Follow the signs for Svitavy. Drive the length of Lužánky park and carry straight on through the crossroads. Turn left at the traffic lights at the next crossroads, and you'll see the hotel.

By TRAIN or BUS – from the main train station with PUBLIC TRANSPORT

Take tram no. 1 (destination Řečkovice) to Hrnčířská stop. Carry on in the direction of the journey and turn right at the crossroads (right next to the tram stop). Walk along Rybníček street, turn left and the second crossroads, and you'll see the hotel.

PRACTICAL INFORMATION

The official language of the conference is English (without translation).

The conference scientific programme will include oral and poster presentations on four conference themes.

Oral presentation slides should be prepared in PowerPoint, time limit is 10 min. (standard presentation in sessions). Scientific board selected keynote lectures with limit of 20 min. for presentation.

Poster presentations – poster boards are A0 format (841x1189 mm) in portrait orientation. Posters will be displayed during the conference days and will be introduced to the audience during active poster sessions (A, B and C group) in max. 5-min. presentations.

The best oral presentations and posters presented by young scientists (especially students in bachelor, master and PhD programmes) will be awarded by the Scientific Board.

REGISTRATION

Registration is already closed.

We have registered more than 80 participants from 17 countries. A total of 63 scientific contributions (31 oral and 32 posters) will be presented during conference. Time schedule with the order of oral and poster presentations is listed at the end of this document.

REGISTRATION FEE (in Euro)

Conference participant			Accompanying person
ISTRO member	NON ISTRO member	Student	
300	350	150	150

The registration fee includes the following services: participation in the scientific programme (e-book of abstracts), the scientific excursion and field trip, lunches and drinks during conference breaks and the gala dinner.

Accompanying persons are warmly welcomed. We will prepare for them a pleasant stay with a rich social programme that will allow them to enjoy Brno and get to know the culture and history of the South Moravian region.

If you did not pay yet, please do it as soon as possible!!!

After on-line registration, payment only by bank transfer. All bank charges should be paid by the registrant. Confirmation of invoice payment will be hand over during registration at the beginning of conference or will be sent by e-mail upon request of participant.

Customer: ISTRO CZ, z.s.

Address: Zahradní 400/1, 664 41 Troubsko

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Comment: indicate CESTRO_2022_YOUR PARTICIPANT NAME! (*means family name*)

ACCOMMODATION

Accommodation will be available directly in hotel [AVANTI](#) and other hotels in Brno.

IMPORTANT DATES

31 October 2022 – submission of full paper (for Poljoprivreda / Agriculture journal)

ABSTRACT SUBMISSION

All abstracts which were reviewed and accepted by the Scientific board will be published in the Conference Book of Abstracts in electronic form.

OPPORTUNITY FOR PUBLISHING A SCIENTIFIC PAPER IN JOURNAL POLJOPRIVREDA/ AGRICULTURE

Authors of abstracts (conference participants with oral or poster presentations) who decide to publish their full papers in [JOURNAL POLJOPRIVREDA / AGRICULTURE](#) should prepare a manuscript according to Guidelines for authors. The prepared manuscript should be submitted in electronic form via the paper submission system on the Journal website. Every submitted manuscript is obligated to include the "CESTRO-2022" dedication (for identification papers related to our conference).

Authors will be informed about the manuscript evaluation process. **Final deadline for submitting of manuscript is 31. 10. 2022.** We expect publishing of papers in two issues of POLJOPRIVREDA journal (12/2022 and 6/2023).

If you want to have an article published this year, please send the manuscript as soon as possible.

ABOUT POLJOPRIVREDA

Poljoprivreda (ISSN 1330-7142) is a journal covering the technologies/fields/categories related to Agronomy and Crop Science (**Q3**). It is published by the Faculty of Agriculture in Osijek. According to SCImago Journal Rank (SJR), this journal is ranked 0.268.

The journal Poljoprivreda / Agriculture publishes original research papers from the following fields: plant production, animal science, soil science, ecology and agricultural economics. Book surveys or their reviews, summaries of doctoral theses and short communications covering agriculture field may be included in the journal supplement. The papers are printed in Croatian and English language. Full texts of articles are open access free of charge without delay (no embargo period) for educational or personal use respecting authors' and publishers' copyrights.

About BRNO

Brno is a city in the South Moravian Region, approximately 200 km southeast of Prague, 130 km north of Vienna and Bratislava.

Town of [BRNO](#)

- The capital of the South Moravian Region with a population of almost 400 000.
- Strategic geographic position within Central Europe with excellent transport accessibility, including an international airport.
- Modern, dynamic and fast growing centre of industry, trade, science, information technology, research and innovation with business incubators and centres of excellence in science.
- A university city with more than 86 000 students at 14 universities and 3 university campuses.
- Important centre for international trade fairs and exhibitions.
- Good business environment – major global companies and property developers.
- Supporting infrastructure for business in the field of science, research and innovation.
- High quality of life – a cultural, sports and historical hotspot.
- Beautiful surrounding landscape.

Brno, situated between the Bohemian-Moravian forested highlands and the fertile South Moravian lowlands with vineyards, offers its residents and visitors a high-quality and attractive landscape for living, business and recreation.

The city is a unique cultural centre for the whole region. There are permanent theatre ensembles, opera, ballet and musical stages, a philharmonic orchestra, a number of museums, galleries and libraries, a recently modernised observatory and planetarium, zoo and botanical gardens.

About Mendel University in Brno (MENDELU)

[Mendel University in Brno](#) (MENDELU) is a public institution with a long tradition of excellence in teaching and research, it was established as the University of Agriculture in Brno in 1919. The current name of the university has been adopted to commemorate Gregor Johann Mendel, the founder of modern genetics. MENDELU comprises one university institute and five faculties which offer more than 100 graduate degree programmes in the Czech and English languages.

The modern university campus is located in Brno, the second-largest city in the Czech Republic. The university facilities designed for practical education and training comprise a farm of about 2 500 ha of arable land, about 10 000 ha of forests situated near Brno and a large botanical garden which is a part of the campus.

The [Faculty of AgriSciences](#) was the original founding faculty in 1919 and for more than one hundred years it has been educating experts in the field of agriculture. The academic staff is actively involved in a wide spectrum of agri-scientific disciplines that range from modern agricultural production sciences, like precision agriculture, plant and animal breeding, crop production, animal husbandry and welfare, robotics, and automation in agriculture, as well as food technology and the development of new food processing techniques for the future. The emphasis placed on environmental health is reflected in active involvement in waste management, ecosystem management, climate change and other relevant scientific issues influencing the modern environment.

The Faculty of AgriSciences includes 15 scientific departments and offers 34 study programmes in agricultural sciences for approx. 2 100 students. A great deal of emphasis is placed on practical education and training, there are modern laboratories, greenhouses, food pilot plants, technical testing laboratories, and a field experimental station providing trials with all major crops.

ORGANISING COMMITTEE

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SCIENTIFIC BOARD

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If you have any questions or need further information, please feel free to contact me.

Vladimír Smutný

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CONFERENCE PROGRAMME

6 September 2022

DAY 1: Tuesday – Scientific programme

8:00 – 9:30 Registration of participants (hotel AVANTI)

9:30 – 10:20 Official opening ceremony

Vladimír Smutný, Márta Birkás, Danijel Jug

Daniel Falta, Bořivoj Šarapatka, Jan Nedělník, Radim Vácha, Mikuláš Madaras, Srdjan Šeremešić

10:20 – 11:00 Keynote lectures (2), 20 min per presentation

Chairs: Irena Jug, Mikuláš Madaras

The influence of erosion on the quality of chernozem soils and crop yield

Bořivoj ŠARAPATKA – Jan FROUZ (CZE)

Aggregate stability in agricultural soils of Danubian lowland

Ivan ŠIMKOVIC – Adela Joanna HAMERNÍKOVÁ – Silvia IHNAČÁKOVÁ (SVK)

11:00 – 11:10 Discussion

11:10 – 11:30 COFFEE BREAK

11:30 – 12:10 Keynote lectures (2), 20 min per presentation

Chairs: Irena Jug, Mikuláš Madaras

Long-term effects of conservation tillage on chemical, physical and biological soil properties

Annette DEUBEL – Stefan GILLE (DEU)

Soil related environmental considerations of farmers in the Great Hungarian Plain

József ZSEMBELI – Géza TUBA – Györgyi KOVÁCS – Lúcia SINKA – Pál NAGY – Arzu RIVERA-GARCIA – Caroline NYABOKE (HUN)

12:10 – 12:20 Discussion

12:20 – 13:20 LUNCH

13:20 – 14:10 Session 1 (5), 10 min per presentation

Chairs: Blair McKenzie, Lubica Pospíšilová

Measurement of stability of soil aggregates by optical methods

Mikuláš MADARAS – Markéta MAYEROVÁ – Martin STEHLÍK – Alena CZAKÓ (CZE)

Topsoil organic carbon content in agricultural land of Slovakia

Gabriela BARANČÍKOVÁ – Štefan KOCO – Jarmila MAKOVNÍKOVÁ – Rastislav SKALSKÝ – Ján HALAS – Jozef KOBZA (SVK)

Effects of biogas digestate on soil aggregate stability and water infiltration

Markéta MAYEROVÁ – Martin STEHLÍK – Mikuláš MADARAS – Tomáš ŠIMON – Alena CZAKÓ (CZE)

Influence of acidification caused by ammonium sulphate application on the stability of soil aggregates

Jan KŘEN – Magdaléna KOUBOVÁ – Michal RÁBEK – Tamara DRYŠLOVÁ – Markéta MAYEROVÁ (CZE)

Comparing the effect of botanical species, historical and modern cultivars of barley (*Hordeum vulgare* L.) supported by mineral or organic fertilizer on soil chemical and microbial properties

Masoud M. ARDESTANI – Jan FROUZ (CZE)

14:10 – 14:30 Discussion

14:30 – 15:20 Session 2, part 1 (5), 10 min per presentation

Chairs: Gabriela Barančíková, József Zsembeli

Impacts of the conservation and traditional agriculture on soil properties and corn production in Junín – Peru

Jimmy Alcides OCAÑA REYES – Odón ZELARAYÁN MUÑOZ – Juliana ALBERTENGO (PER)

Soil management for potato production: multiple operations and consequences

Blair McKENZIE – Mark STALHAM (GBR)

Soil protection technologies for growing maize on sloping lands

Helena KUSÁ – Pavel RŮŽEK – Radek VAVERA – Martin KÁŠ – David KINCL – Petr ČÁP (CZE)

Effect of different soil tillage practices on CO₂ emissions under different weather conditions

Gabriela MÜHLBACHOVÁ – Pavel RŮŽEK – Helena KUSÁ – Radek VAVERA – Martin KÁŠ (CZE)

Evaluation of the influence of mulching materials on soil moisture in the inter-row of vineyards

Alice ČÍŽKOVÁ – Patrik BURG – Vladimír MAŠÁN – Pavel ZEMÁNEK (CZE)

15:20 – 15:30 Discussion

15:30 – 15:40 TAKE AWAY COFFEE

15:40 – 16:40 Poster presentation – GROUP A (10 posters; max. 5 min per poster, including coffee)

Chairs: Bojana Brozović, Benoit Le Rumeur, Bořivoj Šarapatka

17:45 – 21:00 Mendel University campus, botanical garden nad arboretum, welcome party

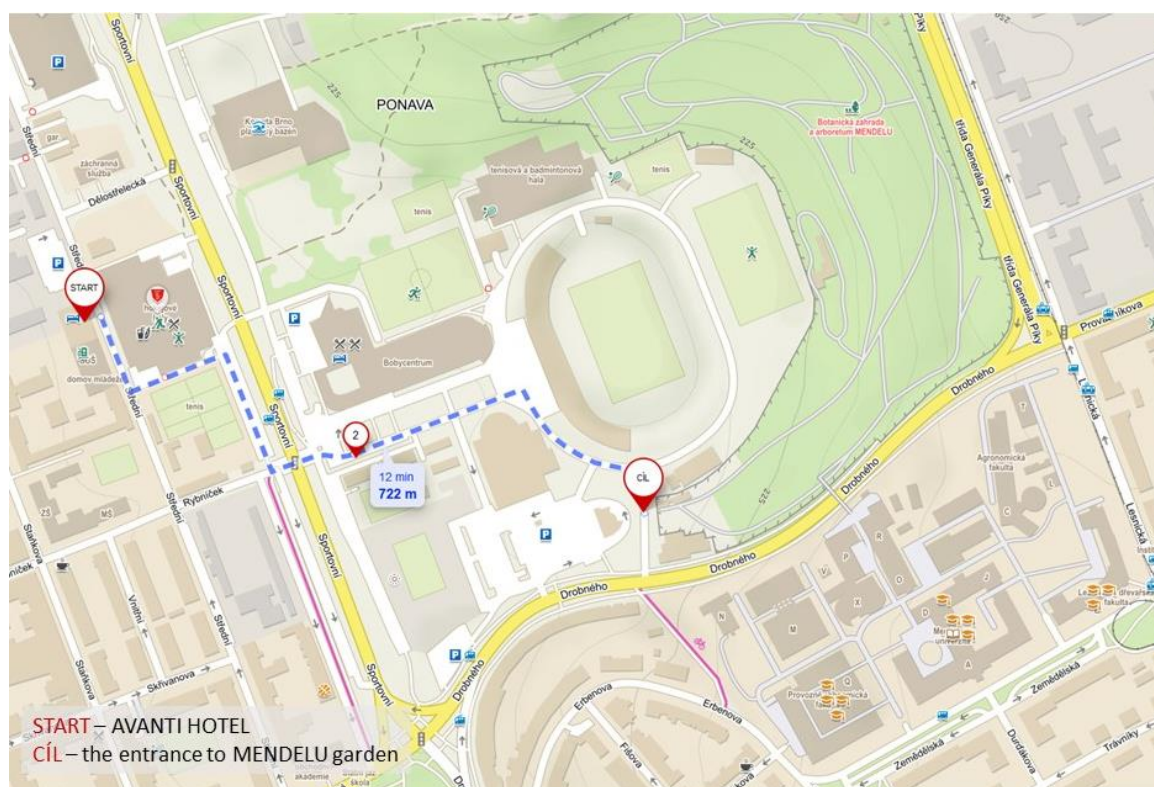
Meeting place: 17:45 entrance to the MENDELU garden, *see the map below!*

Short tour in MENDELU botanical garden and arboretum.

FoodTech experimental pavilion (bakery, malt house, university craft beer brewery, meat and dairy processing facility).

Refreshments – selected MENDELU products – drinks and food.

Walk from the AVANTI hotel to the entrance to the MENDELU garden



Meeting place: entrance to MENDELU garden, 17:45



7 September 2022

DAY 2: Wednesday – Scientific programme

9:00 – 10:20 Keynote lectures (4), 20 min per presentation

Chairs: Gabriela Mühlbachová, Ivan Šimkovic

Conservation agriculture: opportunities and challenges for European agriculture

Jean ROGER-ESTRADE (FRA)

Effect of conservation agriculture on soil quality under climate change

Irena JUG – Boris ĐURĐEVIĆ – Bojana BROZOVIĆ – Gabriella KANIŽAI ŠARIĆ – Danijel JUG (HRV)

Conservation tillage systems in Austria – prevention of soil erosion

Josef ROSNER – Kathrin ROSNER – Andreas KLIK (AUT)

MIP technology for a sustainable improvement of soil fertility

Benoit LE RUMEUR (FRA)

10:20 – 10:40 Discussion

10:40 – 10:50 TAKE AWAY COFFEE

10:50 – 11:50 Poster presentation – GROUP B (10 posters; max. 5 min per poster, including coffee)

Chairs: Jean Roger-Estrade, Markéta Mayerová, Srdjan Šeremešić

11:50 – 12:30 Session 2, part 2 (4; 10 min per presentation)

Chairs: Svitlana Kalenska, Josef Rosner

Influence of locality, year and sampling term on the stability of soil aggregates under different tillage

Jan KŘEN – Magdaléna KOUBOVÁ – Tamara DRYŠLOVÁ – Michal RÁBEK – Mikuláš MADARAS (CZE)

Simplification in soil tillage on farms located in North-Eastern Poland with particular emphasis on organic farming – farmer's perspective

Józef TYBURSKI – Marek MARKS (POL)

Model calibration for simulating soil organic carbon in long-term field experiments in the Czech Republic

Jakub BOHUSLAV – Diana-Maria SESERMAN – Kurt-Christian KERSEBAUM – Mikuláš MADARAS – Miroslav TRNKA – Petr HLAVINKA – Zdeněk ŽALUD (CZE)

The effect of cover crops and different soil tillage on yield of grain maize

Vladimír SMUTNÝ – Michal RÁBEK – Petr ELZNER (CZE)

12:30 – 12:50 Discussion

12:50 – 13:50 LUNCH

13:50 – 14:50 Session 3 (6; 10 min per presentation)

Chairs: Annette Deubel, Jan Křen

The response of soybean yield to different cropping pattern in a long-term experiment on chernozem
Srdjan ŠEREMEŠIĆ – Miloš RAJKOVIĆ – Stanko MILIĆ – Željko DOLIJANOVIĆ – Ivica ĐALOVIĆ – Bojan VOJNOV (SRB)

Challenges to crop production and ways to solve them

Svitlana KALENSKA – Lesya GARBAR – Nataliya NOVYTSKA – Roman FEDIV – Viktor KALENSKYI – Denis SUHINA (UKR)

Results of experiments in soil cultivation and irrigation

Arno KASTELLIZ – Reinhard NOLZ (AUT)

Grain protein deviation in winter wheat varieties tested in the Czech Republic over the period 2018-2021

Vladimíra HORÁKOVÁ – Martin TLÁSKAL (CZE)

Sustainable agriculture and the role of intercrops

Petr ROBOTKA – Martina POLÁKOVÁ (CZE)

Gregor Mendel and his legacy to agriculture

Pavína SMUTNÁ – Nicole FRANTOVÁ – Johann VOLLMANN (CZE)

14:50 – 15:10 Discussion

15:10 – 15:30 COFFEE BREAK

15:30 – 16:00 Session 4 (3; 10 min per presentation)

Chairs: Vaida Steponavičienė, Józef Tyburski

Mapping the spatial heterogeneity of arable fields from crop yield records and remotely sensed data
Vojtěch LUKAS – Petr ŠIRŮČEK – Lubomír NEUDERT – Jiří MEZERA – Jakub ELBL (CZE)

Assessment of the effect of optimized field plot size on the crop yield

Jakub ELBL – Antonín KINTL – Martin BRTNICKÝ – Petr ŠIRŮČEK – Jiří MEZERA – Vladimír SMUTNÝ – Vojtěch LUKAS (CZE)

Modification of tillage technologies for wide row crops

Milan KROULÍK (CZE)

16:00 – 16:10 Discussion

16:10 – 16:20 TAKE AWAY COFFEE

16:20 – 17:30 Poster presentation – GROUP C (12 posters; max. 5 min per poster, including coffee)

Chairs: Danijel Jug, Milan Kroulík, Helena Kusá

17:30 – 18:00 Panel discussion and conclusions

Moderators: Danijel Jug, Vladimír Smutný

19:30 – 23:59 GALA DINNER (in Moravian style – Moravian folk music, Moravian wine collection ...)

LIST OF POSTERS

DAY 1: Tuesday (September, 6)

15:40 – 16:40 Poster presentation – GROUP A (10 posters; max. 5 min per poster, including coffee)

Chairs: Bojana Brozović, Benoit Le Rumeur, Bořivoj Šarapatka

Poster No.	Title/Authors
A-1	Dynamic of selected physical, chemical, and biological parameters as affected by water erosion Kateřina BOTUROVÁ – Lubica POSPÍŠILOVÁ – Luboš SEDLÁK – Jakub PRUDIL (CZE)
A-2	Acid soils CO ₂ respiration under conservation tillage, different fertilization and liming Boris ĐURĐEVIĆ – Irena JUG – Bojana BROZOVIĆ – Vesna VUKADINOVIĆ – Davorka HACKENBERGER KUTUZOVIĆ – Branimir HACKENBERGER – Danijel JUG (HRV)
A-3	Effect of long-term digestate application on soil quality of permanent grassland Tereza HAMMERSCHMIEDT – Jiri HOLATKO – Oldrich LATAL – Antonin KINTL – Adnan MUSTAFA – Martin BRTNICKY (CZE)
A-4	Impact of different land-use on aggregate stability of soils in the viticulture region in The Little Carpathians Mountains Silvia IHNAČÁKOVÁ – Adela Joanna HAMERNÍKOVÁ (SVK)
A-5	The effect of plasma activated water application on physical chemical soil properties Jan JEDLIČKA – Fabián VOLDÁN – Ludmila ČECHOVÁ – Zdenka KOZÁKOVÁ – Jana ŠIMEČKOVÁ – František KRČMA (CZE)
A-6	The effect of pyrolysis temperature and the origin of source biomass on the properties of biochar produced for the application in agriculture as a soil conditioner Michal KALINA – Monika TRUDICOVA – Jan HAJZLER – Leona KUBIKOVÁ – Vojtech ENEV – Jiri SVEC (CZE)
A-7	The effect of permanent grassland fertilization on the state of soil organic matter and nutrients in Haplic Luvisol Jana PLISKOVÁ – Pavel NERUŠIL – Lubica POSPÍŠILOVÁ – Ladislav MENŠÍK (CZE)
A-8	Soil organic matter quality and microbial activity as affected by ameliorative liming Lubica POSPÍŠILOVÁ – Kateřina BOTUROVÁ – Luboš SEDLÁK – Jakub PRUDIL – Ladislav MENŠÍK (CZE)
A-9	The long-term influence of different crop rotations on soil hydrophysical properties in winter rye Lina SKINULIENĖ – Vaclovas BOGUŽAS – Vaida STEPONAVIČIENĖ (LTU)
A-10	Soil organic carbon as reflected by long-term complex measures Vaida STEPONAVIČIENĖ – Vaclovas BOGUŽAS – Lina SKINULIENĖ (LTU)

Poster presentations – poster boards are A0 format (841x1189 mm) in portrait orientation. Posters will be displayed during the conference days and will be introduced to the audience during active poster sessions (A, B and C group) in max. 5-min presentations.

LIST OF POSTERS

DAY 2: Wednesday (September, 7)

10:50 – 11:50 Poster presentation – GROUP B (10 posters; max. 5 min per poster, including coffee)

Chairs: Jean Roger-Estrade, Markéta Mayerová, Srdjan Šeremešić

Poster No.	Title/Authors
B-1	Effect of grape pomace compost application on selected parameters of soil properties Martin VAŠINKA – Barbora BADALÍKOVÁ – Lubica POSPÍŠILOVÁ – Jakub PRUDIL (CZE)
B-2	Weediness of maize in conservation tillage systems under climate change conditions Bojana BROZOVIĆ – Irena JUG – Boris ĐURĐEVIĆ – Bojan STIPEŠEVIĆ – Marija RAVLIĆ – Danijel JUG (HRV)
B-3	The quality of organic matter under cereals stands in the long-term field experiment Tamara DRYŠLOVÁ – Blanka PROCHÁZKOVÁ – Vladimír SMUTNÝ – Pavel HLEDÍK (CZE)
B-4	Effects of conservation tillage on maize yield Irena JUG – Boris ĐURĐEVIĆ – Bojana BROZOVIĆ – Vesna VUKADINOVIĆ – Larisa BERTIĆ – Bojan STIPEŠEVIĆ – Danijel JUG (HRV)
B-5	Growing of maize (yields, forage quality, erosion) using a narrow row of 37.5 cm Pavel NERUŠIL – David KINCL – Lukáš HLISNIKOVSKÝ – Jan SRBEK – Antonín ŠEDEK – Ladislav MENŠÍK (CZE)
B-6	Biomass production of inter-row seeding cover crops and the effect on yield of maize Lubomír NEUDERT – Michal RÁBEK – Petr ELZNER – Tamara DRYŠLOVÁ – Lenka PORČOVÁ – Stanislav HEJDUK – Pavel NERUŠIL – Antonín ŠEDEK – Petr DANĚK – Vladimír SMUTNÝ (CZE)
B-7	The effect of crop rotation, tillage and nitrogen fertilization on soil organic matter content and its quality Jakub PRUDIL – Lubica POSPÍŠILOVÁ – Tamara DRYŠLOVÁ – Kateřina BOTUROVÁ – Luboš SEDLÁK – Vladimír SMUTNÝ (CZE)
B-8	Sequential chemical fractionation as a tool for biochar organic matter characterization Sarka SOVOVA – Vojtech ENEV – Leona KUBIKOVA – Michal KALINA (CZE)
B-9	Row cleaner coulter disc performance effects on no-till pneumatic precision direct seeding machines Metin Kaan UYGUNTÜZEL – Erdem AYKAS – Çınar ÖRÜN (TUR)
B-10	Differences in nutrient availability and microbial activity in erosive and accumulation areas of Chernozems and Cambisols Vítězslav VLČEK – Luboš SEDLÁK – Lubica POSPÍŠILOVÁ – Jakub PRUDIL – Barbora BADALÍKOVÁ (CZE)

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LIST OF POSTERS

DAY 2: Wednesday (September, 7)

16:20 – 17:30 Poster presentation – **GROUP C** (12 posters; max. 5 min per poster, including coffee)

Chairs: Danijel Jug, Milan Kroulík, Helena Kusá

Poster No.	Title/Authors
C-1	Assessment of rice nitrogen uptake using UAV multispectral imagery
	Rattana ASAWAPISANKUL – Kannika SAJJAPHAN – Wuthida RATTANAPICHAH – Raksak SERMSAK – Vojtech LUKAS – Karel KLEM (THA)
C-2	The grain yields of cereals in the long-term field experiment in Žabčice
	Tamara DRYŠLOVÁ – Vladimír SMUTNÝ – Jan KŘEN – Blanka PROCHÁZKOVÁ – Michal RÁBEK (CZE)
C-3	The effect of soil-climate conditions and fertilizer treatment on maize yield and quality
	Ladislav MENŠÍK – Lukáš HLISNIKOVSÝ – Pavel NERUŠIL – Eva KUNZOVÁ (CZE)
C-4	Evaluation of winter wheat nitrogen status by multispectral unmanned aerial survey
	Igor HORNIAČEK – Jiří MEZERA – Vojtěch LUKAS – Renata DUFFKOVÁ – Jakub ELBL – Vladimír SMUTNÝ (CZE)
C-5	The effect of growth regulators application on the yield and economy of poppy cultivation
	Martin HOUŠT (CZE)
C-6	Possible use of mixed cropping system composed of Zea mays and Phaseolus vulgaris for phytoremediation and theoretical methane yield
	Antonín KINTL – Ján SMERINGAI – Martin BRTNICKÝ – Tereza HAMMERSCHMIEDT – Julie SOBOTKOVÁ – Igor HUŇADY – Jakub ELBL (CZE)
C-7	Differences in the ripening of two clover species and the effect of pre-harvest treatment
	Zuzana KUBÍKOVÁ – Helena HUTYROVÁ – Hana SMEJKALOVÁ (CZE)
C-8	Cultivar difference in the nitrate uptake ability of wheat at different temperature conditions
	Gabriela KUREŠOVÁ – Ivana RAIMANOVÁ – Pavel SVOBODA – Jan HABERLE – Michal MOULÍK – Jana WOLLNEROVÁ (CZE)
C-9	Optimization of crop management practices by smart farming technologies for small and medium-sized farms
	Vojtěch LUKAS – Lubomír NEUDERT – Jiří MEZERA – Petr ŠIRŮČEK – Vlastimil VODA (CZE)
C-10	Effect of drought and irrigation after flowering on yields of winter wheat, spelt wheat and einkorn wheat
	Michal MOULÍK – Ivana RAIMANOVÁ – Pavel SVOBODA – Gabriela KUREŠOVÁ – Jan HABERLE (CZE)
C-11	Comparison of aboveground biomass production of selected varieties of forage sorghum
	Lenka PORČOVÁ – Michal RÁBEK – Vladimír SMUTNÝ (CZE)
C-12	Conservation tillage systems could increase maize resilience to climate change
	Milena SIMIĆ – Vesna DRAGIČEVIĆ – Milan BRANKOV – Željko DOLIJANOVIĆ – Branka KRESOVIĆ – Miodrag TOLIMIR (SRB)

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8 September 2022

DAY 3: Thursday – Conservation soil tillage workshop / Excursion

8:00 Departure from AVANTI hotel (by bus)

9:15 – 12:00

Agricultural machines for soil tillage (Field demonstrations, P & L, Ltd.; Hrubčice)

Inter-crops (various mixtures)

PROSEEDS®

SEED SERVICE

Inter-row seeding cover crops in maize

12:00 – 13:00 Lunch in P & L, Ltd.; Hrubčice

14:00 – 16:00 Museum of historical carriages (Čechy pod Kosířem)

17:00 – 20:00 Farewell dinner, hotel Velká Klajdovka, Brno
49.21755932378726, 16.680840447685675

Invitation – Field day: P & L, Ltd.; Hrubčice

49.449051818201944, 17.204052513941626



Servis, za kterým stojí lidé



P & L, spol. s r.o. vás srdečně zve na

POLNÍ UKÁZKY STROJŮ

A DEN OTEVŘENÝCH DVEŘÍ P & L V HRUBČICÍCH

8. září 2022 od 9.00 hod., Hrubčice u Prostějova

Museum of historical carriages

Čechy pod Kosířem

nám. Svobody 377, 798 58 Čechy pod Kosířem

49.55186136830874, 17.034542168169438

