

The conference addresses main issues related to soil health and food towards a chemical pesticide-free agriculture

PROGRAMME

26 October (Wednesday)

Central building, 505 auditorium, Studentu Str. 11, Akademija, Kaunas District

(CE time – 1 ⁰⁰) 8 ⁰⁰ –9 ⁰⁰	Registration, poster mounting and coffee
9 ⁰⁰ –9 ²⁰	Opening of the conference (Moderator Dr. Zita Kriaučiūnienė) Chancellor of Agriculture Academy Prof. Dr. Astrida Miceikienė, Vytautas Magnus University, Lithuania; Prof. Dr. Zenonas Dabkevičius, Lithuanian Academy of Sciences, Lithuania; Kristina Simonaitytė, Ministry of Agriculture, Lithuania, Dean of Agronomy Faculty Assoc. Prof. Dr. Aida Adamavičienė, Vytautas Magnus University Agriculture Academy, Lithuania
9 ²⁰ –12 ³⁰	Plenary Session Moderators: Prof. Dr. V. Bogužas, Assoc. Prof. Dr. Z. Kriaučiūnienė
9 ²⁰ –9 ³⁰	Organic farming in the EU: facts and figures Prof. Dr. Astrida Miceikienė, Vytautas Magnus University Agriculture Academy, Lithuania
9 ³⁰ –9 ⁵⁰	Stability, robustness, vulnerability and resilience of agricultural systems Prof. Dr. Christian Huyghe, Dr. Nicolas Urruty, National Research Institute for Agriculture, Food and Environment, France
9 ⁵⁰ –10 ¹⁰	Soil organic matter and its role in the environment Prof. Dr. Jerzy Weber, Wrocław University of Environmental and Life Sciences, Poland
10 ¹⁰ –10 ³⁰	Rethinking resilient agriculture: From climate-smart agriculture to vulnerable-smart agriculture Prof. Dr. Hossein Azadi, University of Liège, Belgium
10 ³⁰ –11 ⁰⁰	Coffee break, photograph of participants, poster presentations Moderators: Prof. Dr. Jerzy Weber, Prof. Dr. Elyvra Jarienė
11 ⁰⁰ –11 ²⁰	Fertilization strategies in organic farming – challenges and prospects Dr. Sabine Zikeli, University of Hohenheim, Germany
11 ²⁰ –11 ⁴⁰	Challenges of predicting regional crop yields and water balance using agroecosystem models at high resolution Prof. Dr. Claas Nendel, Leibniz-Centre for Agricultural Landscape Research (ZALF), Germany
11 ⁴⁰ –12 ⁰⁰	Applications of smart technologies for monitoring of food quality and safety to improve traceability and customers trust Assoc. Prof. Dr. Imran Aslan, Bingöl University, Türkiye
12 ⁰⁰ –13 ⁰⁰	Lunch, poster presentations

(CE time – 1 ⁰⁰) 13 ⁰⁰ –14 ⁴⁵	Oral presentations of Sessions 1–3 Session 1: Soil health and carbon sequestration for sustainability; Session 2: Soil and crop management towards a chemical pesticide-free agriculture; Session 3: Biodiversity, crop and production diversification Moderators: Assoc. Prof. Dr. Rimantas Vaislavaičius, Dr. Livija Zarina
13 ⁰⁰ –13 ¹⁵	Incentivising the uptake of precision agricultural technologies in grain farming: empirical evidence from choice experimental survey in Spain Enoch Owusu-Sekyere ¹ , Assem Abu Hatab ¹ , Carl-Johan Lagerkvist ¹ , Egidijus Šarauskius ² , Zita Kriaučiūnienė ² , Manuel Pérez Ruiz ³ , Manuela Díaz ⁴ , Enrique Apolo-Apolo ⁵ , Mhd Baraa Almoujahed ⁵ , Rebecca L. Whetton ^{5,6} , Abdul M. Mouazen ⁵ , ¹ Swedish University of Agricultural Sciences, Sweden; ² Vytautas Magnus University, Lithuania; ³ University of Seville, Spain; ⁴ Soluciones Agrícolas de Precisión S.L., Spain; ⁵ Ghent University, Belgium; ⁶ University College Dublin, Ireland
13 ¹⁵ –13 ³⁰	Stabilizing soil organic carbon in agricultural soils for increase of soil microbial activity as the measure promoting the reduction of mineral fertilization Audrius Jakutis, Jūratė Aleinikovienė, Vytautas Magnus University Agriculture Academy, Lithuania
13 ³⁰ –13 ⁴⁵	Influence of granular organic fertilizers from meat bone meal with bio-preparations on the growth parameters of pak choy Zita Kriaučiūnienė ¹ , Rita Čepulienė ¹ , Ernestas Zaleckas ¹ , Vilma Naujokienė ¹ , Quirijn de Jong van Lier ² , Egidijus Šarauskius ¹ , ¹ Vytautas Magnus University Agriculture Academy, Lithuania; ² University of São Paulo, Brazil
13 ⁴⁵ –14 ⁰⁰	Isolation and characterization of cellulolytic bacteria from agricultural soil Arman Shamshitov, Skaidrė Supronienė, Lithuanian Research Centre for Agriculture and Forestry, Lithuania
14 ⁰⁰ –14 ¹⁵	Effect of endophytic bacteria associated with Artemisia plant on biological control pea rot root pathogen Shervin Hadian, Skaidrė Supronienė, Lithuanian Research Centre for Agriculture and Forestry, Lithuania
14 ¹⁵ –14 ³⁰	Productivity of diverse plant species in relation to effective photochemical yield Giedrė Samuolienė ^{1,2} , Viktorija Vaštakaitė-Kairienė ^{1,2} , Kristina Laužikė ² , Gediminas Kudirka ² , Akvilė Viršilė ² ; ¹ Lithuanian Research Centre for Agriculture and Forestry; ² Vytautas Magnus University Agriculture Academy, Lithuanian Research Centre for Agriculture and Forestry, Lithuania
14 ³⁰ –14 ⁴⁵	Results of research on pesticide free weed management using inter-row hoeing in cereals Livija Zarina, Dace Piliksere, Institute of Agricultural Resources and Economics, Latvia

14 ⁴⁵ –15 ⁰⁰	Possibilities to use sludge from aquaculture ponds and recirculation systems as soil improvement measure in agriculture Alvydas Žibas, Gražina Žibienė, Laima Česonienė, Mantas Brazauskas, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
15 ⁰⁰ – 15 ¹⁵	Coffee break, poster presentations
(CE time –1 ⁰⁰) 15 ¹⁵ –16 ⁴⁵	Oral presentations of Sessions 4–6 Session 4: Precision farming and digital technologies; Session 5: Food quality and safety; Session 6: Climate change mitigation Moderators: Prof. Dr. K. Romaneckas, Assoc. Prof. J. Černiauskienė
15 ¹⁵ –15 ³⁰	The productivity of maize, hemp and faba bean multi-cropped cultivations Jovita Balandaitė, Kęstutis Romaneckas, Algirdas Jasinskas, Rasa Kimbirauskienė, Austėja Švereikaitė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
15 ³⁰ –15 ⁴⁵	Influence of different fertilizers on the water quality of aquaculture ponds Gražina Žibienė, Laima Česonienė, Alvydas Žibas, Mantas Brazauskas, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
15 ⁴⁵ –16 ⁰⁰	Caraway (<i>Carum carvi</i> L.) in multifunctional crops and integrated assessment of its impact on the agroecosystem Aušra Rudinskienė, Aušra Marcinkevičienė, Zita Kriaučiūnienė, Rimantas Velička, Robertas Kosteckas, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
16 ⁰⁰ –16 ¹⁵	Anthocyanins and chlorophylls changes in solanum spp. Fruits during ripening Jūratė Staveckienė ¹ , Jurgita Kulaitienė ¹ , Agnieszka Tajner-Czopek ² , <i>Vytautas Magnus University Agriculture Academy, Lithuania</i> ; ² <i>Wrocław University of Environmental and Life Sciences, Poland</i>
16 ¹⁵ –16 ³⁰	Studies of the variability of biologically active and anticancer compounds in organically grown fermented fireweed (<i>Chamerion angustifolium</i> (L.) Holub) leaves Elvyra Jarienė, Jurgita Kulaitienė, Nijolė Vaitkevičienė, Marius Lasinskas, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
16 ³⁰ –16 ⁴⁵	The value of forest peatlands in Lithuania: the need for restoration Evaldas Makrickas, Michael Manton, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i> , Mateusz Grygoruk, <i>Warsaw University of Life Sciences, Poland</i>
16 ⁴⁵ –17 ¹⁵	Concluding remarks and discussions Moderators: Prof. Dr. Kęstutis Romaneckas, Prof. Dr. Vaclovas Bogužas Participants: Assoc. Prof. Dr. Aida Adamavičienė, Prof. Dr. Elvyra Jarienė, Assoc. Prof. Dr. Zita Kriaučiūnienė, Assoc. Prof. Judita Černiauskienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i> ; Dr. Christian Huyghe, <i>INRAE, France</i> , Prof. Dr. Jerzy Weber, <i>Wrocław University of Environmental and Life Sciences, Poland</i> ; Dr. Sabine Zikeli, <i>University of Hohenheim, Germany</i> ; Prof. Dr. Hossein Azadi, <i>University of Liège, Belgium</i> ; Assoc. Prof. Dr. Imran Aslan, <i>Bingol University, Turkey</i> ; Prof. Dr. Claas Nendel, <i>Leibniz-Centre for Agricultural Landscape Research (ZALF), Germany</i> ; Dr. Livija Zarina, <i>Institute of Agricultural Resources and Economics, Latvia</i>
18 ⁰⁰ –22 ⁰⁰	Conference dinner with cultural program (photograph) (17³⁰ bus from Central Building to Raudondvaris Manor Orangery)

27 October (Thursday)
Central building 505 auditorium, Studentu Str. 11, Akademija, Kaunas District

(CE time –1 ⁰⁰) 8 ³⁰ –9 ⁰⁰	Registration and coffee
9 ⁰⁰ –11 ⁰⁰	Seminar „Towards a chemical pesticide-free agriculture” Coordinators: Dr. Christian Huyghe, <i>INRAE, France</i> , Prof. Dr. Vaclovas Bogužas, Assoc. Prof. Dr. Zita Kriaučiūnienė, <i>Vytautas Magnus University Agriculture academy, Lithuania</i>
9 ⁰⁰ –9 ³⁰	Growing and protecting crops differently: zero-pesticide as a new paradigm Dr. Christian Huyghe, <i>Chair of European Research Alliance “Towards a Chemical Pesticide-free Agriculture, chair of COST action „Towards zero Pesticide AGRiculture: European Network for sustainability”, National Research Institute for Agriculture, Food and Environment (INRAE), France</i>
9 ³⁰ –10 ⁰⁰	No pesticide farming: 26 years experience Valentinas Genys, <i>farmer, VŠĮ „Sustainable Farming Academy”, Lithuania</i>
10 ⁰⁰ –10 ¹⁵	Organic farming in Lithuania: statistics and goals towards 2030 Virginija Lukšienė, <i>PI “Ekoagros”, Lithuania</i>
10 ¹⁵ –10 ³⁰	Practical steps in Lithuanian agriculture towards chemical pesticides reduction Povilas Drulis, <i>JSC “Agrotikslas”, Lithuania</i>
10 ³⁰ –10 ⁴⁵	Towards a chemical pesticide-free agriculture: opportunities for improving soil microbiological activity and plant nutrient availability PhD Student Raimonda Mažylytė, Audrius Gegeckas, <i>Vilnius University, JSC “Bioenergy LT”, Lithuania</i>
10 ⁴⁵ –11 ⁰⁰	Research towards a chemical pesticide-free agriculture at The Lithuanian Research Centre for Agriculture and Forestry Dr. Gražina Kadžienė, <i>Lithuanian Research Centre for Agriculture and Forestry, Lithuania</i>
11 ⁰⁰ –11 ¹⁵	Discussion
11 ¹⁵ –11 ⁴⁵	Coffee break, poster presentations (12⁰⁰ bus from Central building to excursion)
12 ⁰⁰ –17 ⁰⁰	Excursion and cultural program Coordinators: Dr. Edita Mažuolytė-Miškinė, Assoc. Prof. Dr. Zita Kriaučiūnienė, Assoc. Prof. Rimantas Vaislavaičius, Junior Researcher Dr. Vaida Steponavičienė, PhD Student Aušra Rudinskienė, <i>Vytautas Magnus University, Lithuania</i>
17 ⁰⁰	Closing of the conference program

POSTER PRESENTATIONS

Soil health and carbon sequestration for sustainability

1. **Influence of bio-carbonisate on the soil organic matter quality**
Aleksandra Ukalska-Jaruga, Bożena Smreczak, Joanna Ciepiel, Pasternak Urszula,
Institute of Soil Science and Plant Cultivation - State Research Institute, Poland
2. **Long-term different intensity tillage effect on soil structure**
Inga Andruskaitė, Vaclovas Bogužas, *Vytautas Magnus University Agriculture Academy, Lithuania*
3. **Impact of soil biostimulents and tillage practices on carbon and nitrogen dynamics of soil under wheat crop**
Lina Marija Butkevičienė, Vaida Steponavičienė, Rita Pupalienė, Lina Skinulienė,
Vaclovas Bogužas, *Vytautas Magnus University Agriculture Academy, Lithuania*
4. **The change of soil physical properties in different soil substrates after the use of biological preparation**
Sidona Buragienė, Aida Adamavičienė, Egidijus Šarauskis, *Vytautas Magnus University Agriculture Academy, Lithuania*
5. **Effect of soil crust breaker on the emergence of some vegetable seeds**
Davut Karayel^{1,2}, Zita Kriauciūnienė¹, Egidijus Šarauskis¹, ¹*Vytautas Magnus University Agriculture Academy, Lithuania*; ²*Akdeniz University, Türkiye*
6. **Changes of soil organic carbon and mobile humic acids content under long-term red fescue (*Festuca rubra* L.)**
Aida Skersienė, Alvyra Šlepetienė, Vaclovas Stukonis, *Lithuanian Research Centre for Agriculture and Forestry, Lithuania*
7. **Nitrogen fertilizer rates optimization with urease inhibitors and biological preparations in maize crops**
Povilas Drulis, Zita Kriauciūnienė, Vytautas Liakas, *Vytautas Magnus University Agriculture Academy, Lithuania*
8. **Effect of biological preparations on the biometric properties of `Futura 75' hemp stems**
Arnas Vansevičius, Zita Kriauciūnienė, Vytautas Liakas, *Vytautas Magnus University Agriculture Academy, Lithuania*
9. **The influence of different long-term crop rotations on soil hydrophysical properties in spring barley crops**
Lina Skinulienė¹, Vaclovas Bogužas¹, Vaida Steponavičienė¹, Edyta Hewelke²;
¹*Vytautas Magnus University Agriculture Academy, Lithuania*; ²*Warsaw University of Life Science SGGW (WULS-SGGW), Poland*
10. **Soil properties after long-term reduced tillage, no-till and residue management**
Giedrius Žiūraitis¹, Vaclovas Bogužas¹, Vaida Steponavičienė¹, Lina Skinulienė¹,
Aneta Perzanowska²; ¹*Vytautas Magnus University Agriculture Academy, Lithuania*;
²*Warsaw University of Life Science SGGW (WULS-SGGW), Poland*
11. **Long-term impact of reduced intensity tillage systems combinations on soil properties**
Vaida Steponavičienė¹, Vaclovas Bogužas¹, Lina Skinulienė¹, Marta Wyzinska²;
¹*Vytautas Magnus University Agriculture Academy, Lithuania*; ²*Institute of Soil Science and Plant Cultivation - State Research Institute: Pulawy, Poland*

Soil and crop management towards a chemical pesticide-free agriculture

12. **Effects of biopesticides and undersown cover crops on soil biological properties in the organic farming system**
Aušra Marcinkevičienė, Arūnas Čmukas, Rimantas Velička, Robertas Kosteckas, Lina Skinulienė, *Vytautas Magnus University Agriculture Academy, Lithuania*
13. **Effect of different organic mulches on onion crop**
Alfредas Sinkevičius, Brigita Lebedytė, Aušra Sinkevičienė, Vaclovas Bogužas,
Vytautas Magnus University Agriculture Academy, Lithuania
14. **Effect of humic acid and silicon on winter wheat**
Darija Jodaugienė, Rita Čepulienė, Edita Mažuolytė-Miškinė, Irena Pranckietienė,
Ilona Vagusevičienė, *Vytautas Magnus University Agriculture Academy, Lithuania*
15. **Analysis of soil texture in different tillage systems**
Ieva Erdberga, Krišjānis Veinbergs, Ilze Vircava, *Latvia University of Life Sciences and Technologies, Latvia*
16. **Effect of sowing date on competitiveness of spring rapeseed against weeds**
Silvija Kosteckienė, Rimantas Velička, Lina Marija Butkevičienė, Rita Pupalienė,
Robertas Kosteckas, Zita Kriauciūnienė, *Vytautas Magnus University Agriculture Academy, Lithuania*

Biodiversity, crop and production diversification

17. **Influence of sowing time and seed rate on productivity of winter wheat (*Triticum aestivum* L.)**
Ilona Vagusevičienė, Darija Jodaugienė, Gintarė Sujetovienė, Arvydas Kanapickas,
Irena Pranckietienė, *Vytautas Magnus University Agriculture Academy, Lithuania*
18. ***Monilinia* spp. prevalence in berries of European cranberry (*Vaccinium oxycoccos*)**
Jolanta Sinkevičienė, Laima Česonienė, Remigijus Daubaras, *Vytautas Magnus University Agriculture Academy, Lithuania*
19. **Morphological characterization of almond accessions (National Collection) in Afghanistan**
Rahmatullah Atefi¹, Qudratullah Soofizada²; ¹*University of Baghlan, Afghanistan*;
²*University of Florence, Italy*
20. **Content of arabinoxylan in barley and wheat grains depending on N rate used and year**
Mailiis Korge, Maarika Alaru, Kaidi Möll, Evelin Loit, *Estonian University of Life Sciences, Estonia*
21. **Increasing the resilience and resource efficiency of cropping systems**
Kristjan Tiideberg, Evelin Loit, Tõnu Kastepõld, *Estonian University of Life Sciences, Estonia*
22. **Influence of sowing method and seed rate of milk thistle (*Silybum marianum* L.) on crop and weed density**
Rita Pupalienė, Kęstutis Romanekas, Aiva Stankaitytė, *Vytautas Magnus University Agriculture Academy, Lithuania*

23 **Phytosanitary condition of *Sedum L.* collection in the VMU Botanical Garden**
Sonata Kazlauskaitė, Arūnas Balsevičius, Indrė Lukšytė, Ričardas Narijauskas,
Vytautas Magnus University, Lithuania

24 **Use of organic granulated manure compost in grassland and orchard**
Adrija Dorbe, Amanda Bernharde, Gatis Jaunzems-Vītums, Oskars Ādams, Agris
Zanders, *Latvia University of Life Sciences and Technologies, Latvia*

Precision farming and digital technologies

25 **The short-term effects of autonomous robotic weeding system on soil physical properties**
Indrė Bručienė, Egidijus Šarauskis, *Vytautas Magnus University Agriculture Academy, Lithuania*

26 **Influence of sowing method and seed rate of milk thistle (*Silybum Marianum L.*) on crop and weed density**
Ernestas Petrauskas¹, Vytautas Petkus², Mantas Lukoševičius², Paulius Mykolaitis²,
Andrius Stankevičius³, Ernestas Zaleckas¹, ¹*Vytautas Magnus University Agriculture Academy, ²Kaunas University of Technology, ³Vilnius Gediminas Technical University, Lithuania*

27 **Precision farming as element of plant production optimization**
Marek Marks, Stanislaw Bielski, *University of Warmia and Mazury, Poland*

Food quality and safety

28 **Crop potential and the essential oils yield of four carvone-rich mint species (*Mentha sp.*)**
Živilė Tarasevičienė, *Vytautas Magnus University Agriculture Academy, Lithuania*,
Anna Kiełtyka-Dadasiewicz, *University of Life Science in Lublin, Poland*, Agnieszka
Ludwiczuk, *Medical University of Lublin, Poland*

29 **Influence of replacement of wheat flour with sweet potato powder on quality of cupcakes**
Dovilė Motiejauskaitė, Nijolė Vaitkevičienė, *Vytautas Magnus University Agriculture Academy, Lithuania*

30 **Beetroot peel as a sustainable resource of antioxidants for the food industry**
Akvilė Saponaitė, Nijolė Vaitkevičienė, *Vytautas Magnus University Agriculture Academy, Lithuania*

31 **The effect of field horsetail and stinging nettle extracts in germinated seeds**
Dalė Šumskienė, *Vytautas Magnus University Agriculture Academy, Lithuania*

32 **Chemical composition of the leaves of white mulberry grown in Lithuania**
Dovilė Levickienė, Irina Skirmantienė, *Vytautas Magnus University Agriculture Academy, Lithuania*

33 **The effect of ripening stages on the pomological parameters and total carotenoid content of rosehip species growing under organic system**
Medveckienė Brigita¹, Kulaitienė Jurgita¹, Ewelina Hallmann²; ¹*Vytautas Magnus University Agriculture Academy, Lithuania*; ²*Warsaw University of Life Sciences, Poland*

34 **Quality of sea buckthorn (*Hippophae Rhamnoides L.*) oil extracted from berries Press cake**

Aurelija Paulauskienė, Živilė Tarasevičienė, *Vytautas Magnus University Agriculture Academy, Lithuania*

35 **Evaluation of bioactive compounds in the different varieties beetroots**
Judita Černiauskiene¹, Živilė Tarasevičienė¹, Anna Kiełtyka-Dadasiewicz², Jovita
Šimčikė¹, ¹*Vytautas Magnus University Agriculture Academy, Lithuania*, ²*University of Life Sciences in Lublin, Poland*

36 **Effect of *Ustilago maydis* on the nutritive value and aerobic deterioration of maize silage**
Lauksmė Merkevičiūtė-Venslovė, Eimantas Venslovas, Audronė Mankevičienė,
Alyvra Šlepetienė, Jurgita Cesevičienė, *Lithuanian Research Centre for Agriculture and Forestry, Lithuania*

37 **Risk of mycotoxin formation in barley grain during delayed harvesting**
Eimantas Venslovas, Sigita Janavičienė, *Lithuanian Research Centre for Agriculture and Forestry, Lithuania*

38 **Drying research of *Cannabis sativa L.* seed in a stationary layer**
Živilė Černiauskiene, Egidijus Zvicevičius, Kęstutis Žiūra, Germantas Zajančkauskas,
Vytautas Magnus University Agriculture Academy, Lithuania

Climate change mitigation

39 **Research on conservative agriculture and the manifestation of climate change in the north of the Republic of Moldova**
Cojocaru Olesea, Panfil Gheorghe, *Technical University of Moldova, Moldova*

40 **The influence of controlled drainage on the water regime of the soil**
Inga Adamonytė, Algis Kvaraciejus, *Vytautas Magnus University Agriculture Academy, Lithuania*

The conference is supported by:



Research
Council of
Lithuania



VYTAUTAS
MAGNUS
UNIVERSITY
M C M X X I I



VYTAUTAS
MAGNUS
UNIVERSITY
Faculty of
Agronomy

