

## PROGRAMME

**2 December (Wednesday)**

**CE Time**

**(for local**

**EE Time**

**add +1<sup>00</sup>)**

**Plenary Session** [Click here to join Plenary Session](#)

Moderators: Zita Kriauciūnienė, Vaclovas Bogužas

9<sup>00</sup>–9<sup>10</sup>

**Opening of the Conference AgroEco2020**

Aušra Blinstrubienė, Vytautas Magnus University Agriculture Academy, Lithuania; Zenonas Dabkevičius, Lithuanian Academy of Sciences

9<sup>10</sup>–9<sup>30</sup>

**A mission for European soils – The Horizon Europe mission area 'Soil health and food'**

Cees Veerman, *Chair of the EC Mission Board for Soil Health and Food, Netherlands*; Zita Kriauciūnienė, *member of the EC Mission Board for Soil Health and Food; Vytautas Magnus University, Agriculture Academy, Lithuania*

9<sup>30</sup>–9<sup>50</sup>

**European Infrastructure for Analysis and Experimentation on Ecosystems – AnaEE**

Michel Boér, *AnaEE Director General, France*

9<sup>50</sup>–10<sup>10</sup>

**Agroecology and sustainable yields – the position of the BIOEAST initiative**

Dora Drexler, *Hungarian Research Institute of Organic Agriculture, Hungary*

10<sup>10</sup>–10<sup>25</sup>

**Coffee, tea break**

10<sup>25</sup>–10<sup>45</sup>

**Economics and environmental potential of data fusion-based variable rate applications in precision agriculture**

Abdul M. Mouazen, *Ghent University, Belgium*

10<sup>45</sup>–11<sup>05</sup>

**Weeds in the agroecosystem**

Inderjit Singh, *University of Delhi, India*

11<sup>05</sup>–11<sup>25</sup>

**The influence of organic and conventional production on the bioactive compounds content in food products**

Ewelina Hallmann, *Warsaw University of Life Sciences, Poland*

11<sup>25</sup>–11<sup>45</sup>

**Circular bioeconomy in the context of food chain management**

Renata Marks-Bielska, *University of Warmia and Mazury in Olsztyn, Poland*

11<sup>45</sup>–12<sup>00</sup>

**Remarks and discussions**

Moderators: Aušra Blinstrubienė, Vaclovas Bogužas, Zita Kriauciūnienė, Cees Veerman, Michel Boér, Dora Drexler, Abdul M. Mouazen, Inderjit Singh, Ewelina Hallmann, Renata Marks-Bielska

<b>12<sup>00</sup>–13<sup>00</sup></b>	<b>Lunch</b>
<b>Parallel Session I</b> <a href="#">Click here to join Parallel Session I</a>	
Moderators: Rimantas Vaisvalavičius, Elvyra Jarienė	
	<b><i>Soil health and C sequestration for sustainability</i></b>
13 <sup>00</sup> –13 <sup>15</sup>	<b>The effects of sapropel humic substances application on soddy podzolic soil chemical properties</b> Livija Zarina, <i>Institute of Agricultural Resources and Economics, Latvia</i> ; Olegs Kukainis, Simona Larsson, <i>Latvian Institute of Humic Substances; Liga Zarina, University of Latvia</i>
13 <sup>15</sup> –13 <sup>30</sup>	<b>Methane fluxes from forest soils under trees of different ages and species</b> Anna Walkiewicz, Piotr Bulak, <i>Institute of Agrophysics, Polish Academy of Science, Lublin, Poland</i> ; Mohammad I. Khalil, <i>University College Dublin; Prudence College Dublin, Ireland</i> ; Bruce Osborne, <i>University College Dublin, Ireland</i>
13 <sup>30</sup> –13 <sup>45</sup>	<b>Land use change response on an allocation of organic carbon in the uppermost mineral soil layers</b> Jūratė Aleinikovienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i> ; Kęstutis Armolaitis, Jelena Ankuda, <i>Lithuanian Research Centre for Agriculture and Forestry</i> ; Audrius Jakutis, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i> ; Diana Sivojienė, Valeria Mishcherikova, <i>Lithuanian Research Centre for Agriculture and Forestry</i>
13 <sup>45</sup> –14 <sup>00</sup>	<b>Carbon balances of annual versus perennial cropping systems</b> Ji Chen, Johannes Wilhelmus Maria Pullens, Poul Erik Lærke, <i>Aarhus University, Denmark</i>
14 <sup>00</sup> –14 <sup>15</sup>	<b>Carbon stocks in the soil under different combination of tillage and organic fertilization</b> Monika Vilkišienė, Ieva Mockevičienė, Dalia Ambrazaitienė, Danute Karčauskienė, <i>Lithuanian Research Centre for Agriculture and Forestry</i>
14 <sup>15</sup> –14 <sup>30</sup>	<b>Depth-related changes in soil enzyme activities and physicochemical properties in the soil profiles</b> Anna Piotrowska-Długosz, Jacek Długosz, <i>UTP University of Science and Technology in Bydgoszcz, Poland</i>
<b><i>Food quality and safety</i></b>	
14 <sup>30</sup> –14 <sup>45</sup>	<b>Studies of the variability of polyphenols and carotenoids in different methods fermented organic leaves of willowherb (<i>Chamerion angustifolium</i> (L.) Holub)</b> Mariusz Lasinskas, Elvyra Jarienė, Nijolė Vaitkevičienė, Jurgita Kulaitienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i> ; Katarzyna Najman, Ewelina Hallmann, <i>Warsaw University of Life Sciences, Poland</i>

14 <sup>45</sup> –15 <sup>00</sup>	<b>Impact of foliar application of amino acids on essential oil content, total phenols and antioxidant activity of <i>M. piperita</i></b> Aloyzas Velička, Živilė Tarasevičienė, Aurelija Paulauskienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
15 <sup>00</sup> –15 <sup>15</sup>	<b>Quality changes of the sea buckthorn juice during storage</b> Judita Černiauskienė, Nijolė Vaitkevičienė, Jurgita Kulaitienė, Laura Makūnaitė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
15 <sup>15</sup> –15 <sup>30</sup>	<b>Lutein, zeaxanthin, α, β-carotenes and lycopene in rosehip fruit flesh during ripening</b> Jurgita Kulaitienė, Brigitė Medveckienė, Dovilė Levickienė <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
<b>Parallel Session II</b> <a href="#">Click here to join Parallel Session II</a>	
Moderators: Vaclovas Bogužas, Vilija Aleknevičienė	
<b>Soil and crop management towards a chemical pesticide-free agriculture</b>	
13 <sup>00</sup> –13 <sup>15</sup>	<b>Nitrous oxide dynamics in agricultural soils in response to nitrification inhibitor and N-fertilizer amount</b> Azeem Tariq, Klaus Steenberg Larsen, Line Vinther Hansen, Lars Stoumann Jensen, Sander Bruun, <i>University of Copenhagen, Denmark</i>
13 <sup>15</sup> –13 <sup>30</sup>	<b>Septoria leaf blotch development depending on winter wheat variety</b> Gunita Bimšteine, Kristaps Ieviņš, Jānis Kaņeps, <i>Latvia University of Life Sciences and Technologies</i>
13 <sup>30</sup> –13 <sup>45</sup>	<b>Leaf spot diseases as an emerging problem in <i>Chaenomeles japonica</i> plantations</b> Inta Jakobija, Alise Klūga, <i>Latvia University of Life Sciences and Technologies; Institute for Plant Protection Research "Agrihorts", Latvia</i> ; Biruta Bankina, <i>Latvia University of Life Sciences and Technologies</i>
13 <sup>45</sup> –14 <sup>00</sup>	<b>Effects of bio-preparations on soil and carbon footprint</b> Zita Kriauciūnienė, Darius Juknevičius, Aida Adamavičienė, Sidona Buragienė, Egidijus Šarauskis, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
14 <sup>00</sup> –14 <sup>15</sup>	<b>Impact of biochar on heavy metals and crop yield under different moisture regimes</b> Muhammad Ayaz, Urtė Stulpinaitė, Dalia Feizienė, Vita Tilvikienė, <i>Lithuanian Research Center for Agriculture and Forestry</i>
14 <sup>15</sup> –14 <sup>30</sup>	<b>Application of microbiological products in beans under organic farming conditions</b> Sonata Kazlauskaitė, Povilas Mulercikas, Aurimas Krasauskas, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>

14 <sup>30</sup> –14 <sup>45</sup>	<b>Development of tan spot depending on fungicide treatment schemes and nitrogen rates</b> Agrita Švarta, Gunita Bimšteine, Jānis Kaņeps, <i>Latvia University of Life Sciences and Technologies</i>
14 <sup>45</sup> –15 <sup>00</sup>	<b>The role of circular bioeconomy in climate change mitigation</b> <b>Bioeconomy development in Lithuania: cases for sustainable change</b> Vilija Aleknevičienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
15 <sup>00</sup> –15 <sup>15</sup>	<b>The impact of the use of mineral nitrogen fertilizers on GHG emissions and mitigation using economic instruments</b> Aušra Nausėdienė, Astrida Miciekienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
15 <sup>15</sup> –15 <sup>30</sup>	<b>Comparative assessment of the sustainability performance of glue laminated timber and non-renewable material-based value chains</b> Edgaras Linkevičius, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i> ; Marius Aleinikovas, Povilas Žemaitis, <i>Lithuanian Research Centre for Agriculture and Forestry</i>
<b>Parallel Session III</b> <a href="#">Click here to join Parallel Session III</a>	
Moderators: Kęstutis Romanekas, Aida Adamavičienė, Aušra Marcinkevičienė	
<b>Biodiversity, crop and production diversification</b>	
13 <sup>00</sup> –13 <sup>15</sup>	<b>Agronomic and grain quality responses to fertilizer management in hulled and hulless barley</b> Mara Bleidere, Margita Damskalne, Veneranda Stramkale, Sanita Zute, <i>Institute of Agricultural Resources and Economics, Latvia</i>
13 <sup>15</sup> –13 <sup>30</sup>	<b>Response of plants to seed processing with cold plasma, vacuum and electromagnetic field</b> Vida Mildažienė, Anatolii Ivankov, Rasa Žukienė, Zita Naučienė, Asta Malakauskienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i> , Irina Filatova, Veronika Lyskevich, B. I. Stepanov <i>Institute of Physics, National Academy of Sciences of Belarus</i> , Kazunori Koga, Masaharu Shiratani, <i>Kyushu University, Japan</i>
13 <sup>30</sup> –13 <sup>45</sup>	<b>Influence of the symbiotic bacteria <i>Paenibacillus</i> sp. on the viability of European larch (<i>Larix decidua</i> Mill.) explants in vitro</b> Evelina Zavtrikovienė, Jonas Žiauka, <i>Lithuanian Research Centre for Agriculture and Forestry</i>
13 <sup>45</sup> –14 <sup>00</sup>	<b>Conservation tillage in faba bean cultivation: weed flora</b> Rasa Kimbirauskienė, Kęstutis Romanekas, Aušra Sinkevičienė, Aida Adamavičienė, Sidona Buragienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>

14 <sup>00</sup> –14 <sup>10</sup>	<b>Economical evaluation of reduced intensity tillage systems, straw and green manure combinations</b> Asta Bendoraitė, Vaida Steponavičienė, Vaclovas Bogužas, Lina Skinulienė, Aušra Sinkevičienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
14 <sup>10</sup> –14 <sup>20</sup>	<b>Influence of urease inhibitor and biopreparations on maize productivity</b> Povilas Drulis, Zita Kriaūčiūnienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
14 <sup>20</sup> –14 <sup>30</sup>	<b>Complex of soil tillage, organic and biological fertilization for improving soil microbial activity and nitrogen transformation efficiency in intensive cropping on <i>Calcaric Luvisols</i></b> Jūratė Aleinikovienė, Lina Marija Butkevičienė, Audrius Jakutis, Vaclovas Bogužas, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
14 <sup>30</sup> –14 <sup>45</sup>	<b>Less known <i>Botrytis</i> species as causal agent of legume diseases</b> Elīna Brauna-Morževska, Janis Kaņeps, Biruna Bankina, Gunita Bimšteine, <i>Latvia University of Life Sciences and Technologies</i> ; Ance Roga, Ingrīda Neusa-Luca, Davids Fridmanis, <i>Latvian Biomedical Research and Study Centre, Latvia</i>
<b>Precision farming and digital technologies</b>	
14 <sup>45</sup> –15 <sup>00</sup>	<b>Efficiency of detection of particles by high-speed cameras in splash erosion studies</b> Agata Sochan, Małgorzata Ryżak, Michał Beczek, Rafał Mazur, Cezary Polakowski, <i>Institute of Agrophysics PAS, Poland</i> ; Zbigniew Łagodowski, Ernest Nieznaj, Adam Bobrowski, <i>Lublin University of Technology, Poland</i> ; Andrzej Bieganowski, <i>Institute of Agrophysics PAS, Lublin, Poland</i>
15 <sup>00</sup> –15 <sup>15</sup>	<b>Telemetry – for remote monitoring of the agricultural processes and the environment</b> Antanas Juostas, Eglė Jotautienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
15 <sup>15</sup> –15 <sup>30</sup>	<b>Investigation of granular organic fertilizer distribution in soil using computer simulation</b> Raimonda Zinkevičienė, Eglė Jotautienė, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
15 <sup>30</sup> –16 <sup>00</sup>	<b>Concluding remarks and discussions</b> Moderators: Zita Kriaūčiūnienė, Rimantas Vaisvalavičius, Elvyra Jarienė, Vaclovas Bogužas, Vilija Aleknevičienė, Kęstutis Romanekas, Aušra Marcinkevičienė, Aida Adamavičienė

### 3 December (Wednesday)

**CE Time**  
**(for local**  
**EE Time**  
**add +1<sup>00</sup>)**

**Webinar AnaEE** (Analysis and Experimentation on Ecosystems, <https://www.anaaee.eu/>) on data, modelling and access to the platform. AnaEE will also present the services offered by the Research Infrastructure and how it enables to develop multidisciplinary approaches at the frontiers of life sciences, agronomy and environmental sciences, combining experimentation, analysis and modelling services.

[Click here to join Webinar AnaEE](#)

*Moderators: Michel Boër, Sarah Mahe*

9<sup>00</sup>-9<sup>25</sup>

**Welcome address and introduction to AnaEE, its services and the Central Hub - AnaEE as facilitator of integrated experimental research in Europe**

*Michel Boër, AnaEE Director General, France*

9<sup>25</sup>-10<sup>25</sup>

**AnaEE web services – fund raising, a rich platform catalogue of services and how the access portal works (showcase)**

*Sarah Mahé, AnaEE, Chloé Martin, CNRS, Florent Massol, CNRS, France*

10<sup>25</sup>-10<sup>40</sup>

**Coffee, tea break**

10<sup>40</sup>-11<sup>15</sup>

**The AnaEE Data & Modelling Centre – sharing FAIR data and integrating modelling in AnaEE**

*Dario De Nart, CREA, Italy*

11<sup>15</sup>-11<sup>30</sup>

**AnaEE in ENVRIFAIR**

*Christian Pichot, INRAE, France*

11<sup>30</sup>-11<sup>45</sup>

**Example of FAIRification of data from AnaEE Denmark**

*Klaus Steenberg Larsen, UCPH, Denmark*

11<sup>45</sup>-12<sup>00</sup>

**The AnaEE Technology Centre – doing experiments together**

*Klaus Steenberg Larsen, UCPH, Denmark*

12<sup>00</sup>-12<sup>30</sup>

**The AnaEE Interface & Synthesis Centre – doing syntheses together**

*Karel Klem, Global Change Research Institute CAS, Czech Republic*

12<sup>30</sup>-13<sup>30</sup>

**Lunch**

13<sup>30</sup>-14<sup>00</sup>

**Added value of ecotrons in AnaEE**

*Alexandre Milcu, CNRS, France*

14<sup>00</sup>-14<sup>06</sup>

**Analytical and enclosed platforms at VMU AA**

*Zita Kriauciūnienė, Vytautas Magnus University Agriculture Academy, Lithuania*

14<sup>06</sup>-14<sup>12</sup>

**Long-term forest ecosystem monitoring and modeling platform**

*Algirdas Augustaitis, Vytautas Magnus University Agriculture Academy, Lithuania*

14<sup>12</sup>-14<sup>18</sup>

**An aquacosm platform targeting controlled drainage system and constructed wetland manipulations**

*Arvydas Povilaitis, Vytautas Magnus University Agriculture Academy, Lithuania*

$14^{18}$ - $14^{24}$	<b>Agroecosystem manipulation platform at VMU AA</b> Vaclavas Bogužas, <i>Vytautas Magnus University Agriculture Academy, Lithuania</i>
$14^{24}$ - $14^{30}$	<b>Plant phenotyping platforms at LAMMC</b> Gintaras Brazauskas, <i>Director of Lithuanian Research Centre for Agriculture and Forestry</i>
$14^{30}$ - $14^{50}$	<b>Presentation on FATI-Platform</b> Simon Reynaert, A. Hans De Boeck, Ivan Nijs, <i>University of Antwerpen, Belgium</i>
$14^{50}$ - $15^{05}$	<b>Coffee, tea break</b>
$15^{05}$ - $15^{25}$	<b>Presentation about co-location sites</b> Taneli Kolström, <i>Natural Resources Institute, Finland</i>
$15^{25}$ - $16^{00}$	<b>Concluding remarks and discussions</b>

## Poster presentations

[Click here to join Poster Presentations and see Abstracts Book](#)

### **Soil health and C sequestration for sustainability**

1. **The influence of different nitrogen forms of fertilizers and meteorological conditions on nitrogen transformation and evaporation**  
Irena Pranckietienė, Rūta Dromantienė, *Vytautas Magnus University Agriculture Academy, Lithuania*
2. **Dynamics of changes in selected soil traits in the profiles of arable soils anthropogenically alkalisied with in the Kielecko-Łagowski Vale (Poland)**  
Anna Swiercz, Agnieszka Gandzel, Ilona Tomczyk-Wydrych, *Institute of Geography and Environmental Science Jan Kochanowski University in Kielce, Doctoral Scholl of the Jan Kochanowski University, Poland*
3. **Comparison of the effect of perlite and vermiculite on the moisture retention**  
Darija Jodaugienė, Rita Čepulienė, Irena Pranckietienė, Rūta Dromantienė, *Vytautas Magnus University Agriculture Academy, Lithuania*
4. **Biochar systems as carbon storage technique in agriculture: dealing with a new pharmakon**  
Samuel Abiven, *CNRS, Montpellier European Ecotron, CEREEP-Ecotron IleDe, Universite Paris, France*
5. **Diurnal soil CO<sub>2</sub> efflux variations in mature Scot Pine (*Pinus sylvestris*) stands**  
Osvaldas Kučinskas, *Vytautas Magnus University Agriculture Academy, Lithuania*
6. **The physical-mechanical properties evaluation of experimental granulated poultry manure and biofuel ash fertilizer**  
Raimūnas Mieldažys, Eglė Jotautienė, Algirdas Jasinskas, *Vytautas Magnus University Agriculture Academy, Lithuania*
7. **Specific soil microorganisms effect on soil organic matter stabilization and quality parameters under drought conditions**  
Arnoldas Jurys, Dalia Feizienė, *Lithuanian Research Centre for Agriculture and Forestry*

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**8. Water stable soil aggregates under the different fertilizer treatments**

Rimantas Vaisvalavičius, *Vytautas Magnus University Agriculture Academy, Lithuania; Romutė Mikučionienė, Lithuanian Agricultural Advisory Service*

***Soil and crop management towards a chemical pesticide-free agriculture***

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**9. The influence of organic mulches on beetroot (*Beta vulgaris* L.) agroecosystem**

Alfredas Sinkevičius, Nida Palubinckaitė, Vaclovas Bogužas, Vaida Steponavičienė, Lina Skinulienė, Aušra Sinkevičienė, *Vytautas Magnus University Agriculture Academy, Lithuania*

**10. Effect of different tillage on soil properties in winter rape crop**

Daria Jodaugienė, Aušra Sinkevičienė, Vaida Steponavičienė, Lina Skinulienė, Tautvydas Žemaitis, *Vytautas Magnus University Agriculture Academy, Lithuania*

**11. Organic mulches in vegetable crops**

Irena Zemblienė, Rita Pupalienė, *Vytautas Magnus University Agriculture Academy, Lithuania*

**12. Long-term crop rotation and fertilisation effect on soil organic matter dynamics in sustainable agriculture management systems**

Laura Masilionytė, *Lithuanian Research Centre for Agriculture and Forestry, Zita Kriaucūnienė, Egidijus Šarauskis, Vytautas Magnus University Agriculture Academy, Lithuania; Aušra Arlauskienė, Danutė Jablonskytė Raščė, Lithuanian Research Centre for Agriculture and Forestry*

**13. The influence of non-chemical weed control on the productivity of spring oilseed rape**

Rita Mockevičienė, Rimantas Velička, Aušra Marcinkevičienė, *Vytautas Magnus University Agriculture Academy, Lithuania*

**14. Multifunctional agroecosystems biodiversity, sustainability and functionality in short vegetation conditions**

Jovita Balandaitė, Kęstutis Romanekas, Rasa Kimbirauskienė, Aušra Sinkevičienė, Algirdas Jasinskas, Kęstutis Stravinskas, Matas Skruzdys, *Vytautas Magnus University Agriculture Academy, Lithuania*

**15. The influence of biological preparations and their mixtures on soil properties in winter wheat**

Lina Marija Butkevičienė, Vaclovas Bogužas, Vaida Steponavičienė, Tadas Kerdokas, *Vytautas Magnus University Agriculture Academy, Lithuania*

**16. Impact of tillage intensity with vertical soil stratification on soil physical quality indexes**

Inga Andruškaitė, Vaclovas Bogužas, *Vytautas Magnus University Agriculture Academy, Lithuania*

**17. Susceptibility of different varieties of tulips to viral diseases**

Sonata Kazlauskaitė, Arūnas Balsevičius, Indre Lukšytė, Rita Maršelienė, Ričardas Naraiuscas, *Vytautas Magnus University Agriculture Academy, Lithuania*

**18. Evaluation of potato varieties and clones of breeding material in the integrated farming vai managment system in the North Kurzeme region of Latvia**

Lidijs Vojevoda, Ilze Skrabule, *Institute of Agricultural Resources and Economics, Centre Crop Research Department, Latvia*

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## ***Biodiversity, crop and production diversification***

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19. **Effects of subsequent drought events and abilities to recover of alfalfa and ryegrass forage crops**  
Giedrė Kacienė, Austra Dikšaitytė, Diana Miškelytė, Gintarė Sujetovienė, Jūratė Žaltauskaitė, Irena Januškaitienė, Romualdas Juknys, *Vytautas Magnus University, Faculty of Natural Sciences, Lithuania*
20. **Influence of fiber hemp crop density on weeds and productivity**  
Aušra Sinkevičienė, Eimantas Eigirdas, Vaclovas Bogužas, Lina Skinulienė, Vaida Steponavičienė, Karolis Bilkevičius, *Vytautas Magnus University Agriculture Academy, Lithuania*
21. **The effect of long-term crop rotation on the amount of weed seeds in the soil**  
Lina Skinulienė, Vaclovas Bogužas, Aušra Sinkevičienė, Vaida Steponavičienė, Rimantas Martusevičius, *Vytautas Magnus University Agriculture Academy, Lithuania*
22. **Weed spreading in the multi-cropping system**  
Aušra Rudinskienė, Aušra Marcinkevičienė, Rimantas Velička, Zita Kriauciūnienė, Robertas Kosteckas, *Vytautas Magnus University Agriculture Academy, Lithuania*
23. **Conservation tillage in faba bean cultivation: weed seed bank**  
Aida Adamavičienė, Kęstutis Romanekas, Rasa Kimbirauskienė, Aušra Sinkevičienė, Sidona Buragienė, *Vytautas Magnus University Agriculture Academy, Lithuania*
24. **The changes of chlorophyll fluorescence parameters of *Medicago sativa* under drought stress and recovery after it**  
Irena Januškaitienė, Austra Dikšaitytė, Jūratė Žaltauskaitė, Gintarė Sujetovienė, Giedrė Kacienė, Diana Miškelytė, Romualdas Juknys, *Vytautas Magnus University, Faculty of Natural Sciences, Lithuania*
25. **The effect of the bioproducts on the incidence of septoria leaf blotch in winter wheat crops**  
Jolanta Sinkevičienė, Juozas Pekarskas, *Vytautas Magnus University Agriculture Academy, Lithuania*
26. **Incidence of seed-borne fungi in winter wheat and spring barley seeds**  
Jolanta Sinkevičienė, Aurelija Šaluchaitė, *Vytautas Magnus University Agriculture Academy, Lithuania*
27. **The influence of different soil moisture conditions and nitrogen rates on the forage grasses productivity**  
Aušra Marcinkevičienė, Robertas Kosteckas, Zita Kriauciūnienė, Rimantas Velička, Inga Adamonytė, Aušra Rudinskienė, *Vytautas Magnus University Agriculture Academy, Lithuania*
28. **The effect of sowing time on *Alternaria Brassicae* and *Phyllostreta Nemorum* L. spreading in spring oilseed rape crop**  
Silvija Kosteckienė, Rimantas Velička, Lina Marija Butkevičienė, Zita Kriauciūnienė, Robertas Kosteckas, Rita Pupalienė, *Vytautas Magnus University Agriculture Academy, Lithuania*
29. **Forage quality of semi-natural and cultural grasslands in the ecological farm**  
Vaclovas Stukonis, Vilma Kemešytė, Vilma Živatkauskienė, *Lithuanian Research Centre for Agriculture and Forestry*
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30. **Influence of seed rate and row space on winter wheat yield and grain quality**  
Vija Strazdina, Solveiga Malecka, Margita Damskalne, Valentina Fetere,  
*Institute of Agricultural Resources and Economics, Latvia*
31. **Crop rotation outperform organic and conventional cropping systems in structuring soil microbial communities**  
Keyvan Esmaeilzadeh-Salestani, Viacheslav Eremeev, Liina Talgre, Banafsheh Khaleghdoust, Evelin Loit, *Estonian University of Life Sciences*
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32. **Leaf senescence of spring wheat in contrasting agroecosystems**  
Daiva Janušauskaitė, Dalia Feizienė, Virginijus Feiza, *Lithuanian Research Centre for Agriculture and Forestry*
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### **Precision farming and digital technologies**

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33. **The aspects of splash erosion in the eye of high-speed camera**  
Michał Bęczek, Rafał Mazur, Małgorzata Ryżak, Agata Sochan, Cezary Polakowski, Andrzej Bieganowski, *Institute of Agrophysics, Polish Academy of Sciences, Lublin, Poland*
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### **Food quality and safety**

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34. **Changes in the mineral content of wild stinging nettle (*Urtica dioica* L.) as influenced by the harvesting time**  
Aurelija Paulauskienė, Živilė Tarasevičienė, Vanesa Šliažaitė, *Vytautas Magnus University Agriculture Academy, Lithuania*
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35. **Quality evaluation of honey**  
Rūta Kuzmaitė, Elvyra Jarienė, *Vytautas Magnus University Agriculture Academy, Lithuania*
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36. **Effect of freezing on the chemical composition of strawberries**  
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37. **The content of macroelements in the peel and flesh of fruit of pear cultivars**  
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38. **Polyphenols content in rosehips flesh R. Rugosa and R. Canina during ripening**  
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40. **The comparative analysis of physicochemical properties, amino and fatty acidsprofile of musculus longissimus dorsi between late and fast matured cattle breed**  
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