



Latvia University
of Life Sciences
and Technologies

30th

Annual International
Scientific Conference

RESEARCH FOR RURAL DEVELOPMENT

CONFERENCE
PROGRAMME

MAY 15-16, 2024
JELGAVA, LATVIA

Regulations for Plenary Session Presentations – 15 minutes
Regulations for Session Presentations – 10 minutes
Discussions – up to 5 minutes
Conference Language – English

WEDNESDAY, 15/05/2024

9:00 – 10:00 Registration of Participants
10:00 – 11:15 Opening of Conference and Plenary session
11:15 – 11:45 Discussions and Coffee Break
11:45 – 13:15 Parallel Sessions
13:15 – 14:15 Lunch Time
14:15 – 16:00 Parallel Sessions
16:00 – 16:15 Discussions and Coffee Break
16:15 – 17:20 Parallel Sessions
17:30 – ... Social Programme

THURSDAY, 16/05/2024

9:00 – 10:45 Session
10:45 – 11:00 Discussions and Coffee Break
11:00 – 12:15 Session
12:30 – ... Social Programme

9:00-10:00 **Registration of Participants**
Main building of LBTU, Jelgava Palace, Lielā str.2, Silver Hall

10:00-11:15
Opening of Conference and Plenary session

Chairperson: **Zane Vitolina**

Room: **Main Building of LBTU, Silver Hall**

Irina Arhipova, Vice-Rector for Science Latvia University of Life Sciences and Technologies
Opening Keynotes

Zanda Kruma, Latvia University of Life Sciences and Technologies
Enhancing Innovation, Collaboration, and Professional Development through Scientific Conferences

Aleksejs Nipers, Irina Pilvere, Aina Muška, Aija Pilvere, Una Veipāne,
Latvia University of Life Sciences and Technologies, Latvia
BioRural: Working Towards 2050

Janis Gailis, Zane Gita Grase, Laura Ozolīna-Pole,
Latvia University of Life Sciences and Technologies, Institute of Plant Protection Research 'Agrihorts', Latvia
*Recent studies on the broadbean seed beetle (*Bruchus rufimanus*) - the major pest of the faba bean (*Vicia faba*) in Latvia*

11:15 – 11:45 **Discussions and Coffee Break**

WEDNESDAY
15/05/2024



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11:45-13:15

Social Sciences - Economic Sciences

Chairperson: **Gunita Mazure**

Parallel Session, Main Building of LBTU, Silver Hall

Dace Kadile, Baiba Rivža, Latvia University of Life Sciences and Technologies, **Milīta Vienažindienē**, Latvia Vytautas Magnus University Agriculture Academy, Lithuania, **Pēteris Rivža**, Latvia University of Life Sciences and Technologies
Paradigms of the digital economy and society: a comparative analysis of Latvia and Lithuania

Ahmad Raza Khan, Dina Popluga, Latvia University of Life Sciences and Technologies
Navigating vulnerabilities: socioeconomic dynamics and resilience strategies in South Asian agriculture

Gunita Mazure, Inguna Leibus, Rolands Feldmanis, Latvia University of Life Sciences and Technologies
Assessment of financial distress in agricultural cooperatives in Latvia applying the prevention system indicators

Ilze Sprōģe, Aina Joppe, Irina Solovjova, University of Latvia, Latvia
Theoretical overview of self-employed persons

Inga Būmane, Aina Joppe, University of Latvia, Latvia
Intellectual property rights in Latvia: issues of valuation and accounting

Iryna Zamkova, Maryna Dubinina, Olha Luhova, Svitlana Syrtseva, Yuliia Cheban, Tetiana Kuchmiiova, Mykolaiv National Agrarian University, Ukraine
Corporate social responsibility of agricultural companies of Ukraine under martial law

13:15- 14:15 **Dinner time**

14:15-16:00

Social Sciences - Economic Sciences (continuation)

Chairperson:

Parallel Session, Main Building of LBTU, Silver Hall

Lasma Licite Kurbe, Latvia University of Life Sciences and Technologies, Latvia
Adaptation to the covid-19 crisis: case study analysis of social economy actors in Latvia

Gunita Mazure, Latvia University of Life Sciences and Technologies
Private pension funds in Latvia: investment strategies and performance of pension plans

Baiba Mistre, Inguna Leibus, Gunita Mazure, Peteris Rivza, Latvia University of Life Sciences and Technologies
Evaluation of scenarios for the improvement of social protection for families with children in Latvia

Santa Bormane, Riga Stradins University, Latvia
Measurement of sustainable entrepreneurship – benefits in a BREEZE: a review

Dace Rozensteina, Santa Bormane, Riga Stradins University, Latvia
Sustainable marketing: Challenges and opportunities in context of consumer behaviour

Aina Joppe, Inga Būmane, Kristīne Ozola, University of Latvia, Latvia
Development trends and opportunities for social assistance

Natalya Sirenko, Alla Burkovska, Olha Melnyk, Olena Bodnar, Kateryna Mikulyak, Mykolayiv National Agrarian University, Ukraine
Impact of the war on the export of Ukrainian organic agricultural products

16:00 – 16:15 **Discussions and Coffee Break**

16:15 – 17:20

Social Sciences - **Economic Sciences (continuation)**

Chairperson:

Parallel Session, Main Building of LBTU, Silver Hall

Inese Skapste, Gunta Grīnberga-Zālīte, Aina Dobeļe, Latvia University of Life Sciences and Technologies, Latvia
The potential of Baltic Sea algae as an agricultural resource enhancing sustainability in Latvia

Juris Hāzners, Armands Vēveris, Elita Benga, Institute of Agricultural Resources and Economics, Latvia
Impact evaluation of the rural development programme support to small farms with regression discontinuity design

Biruta Sloka, Ginta Tora, Lilita Seimuškāne, Anna Angena, University of Latvia, Latvia
Health self-evaluation: are there differences in rural and urban territories in Latvia

Līga Braslina, Anda Batraģa, Katrīna Kellerte, Jeļena Šalkovska, Daina Šķiltere, Girts Braslins,
University of Latvia, Latvia
Theoretical frameworks shaping innovative product development for the regional improvement: a multidisciplinary perspective

Maksym Bezpartochnyi, Lviv Polytechnic National University, Ukraine, **Olesia Bezpartochna**, International European University, Ukraine
Inclusive rural development of territorial communities of Lviv region through financial decentralisation and territorial marketing

11:45-13:15

Life Sciences - **Forestry, Land Use Planning**

Chairperson: **Inga Straupe**

Parallel Session, Main Building of LBTU, Room 293

Valentinas Černiauskas, Iveta Varnagirytė-Kabašinskienė, Lithuanian Research Centre for Agriculture and Forestry, Lithuania
Evaluating responses of young tree species in simulated urban environments

Inga Straupe, Diāna Jansone, Alīna Kozure, Latvia University of Life Sciences and Technologies, Latvia
Forest vegetation on the island of Upursala of lake Cirišs, Latvia

Diāna Jansone, Roberts Matisons, Latvian State Forest Research Institute 'Silava', Latvia University of Life Sciences and Technologies, Latvia, **Inga Straupe**, Latvia University of Life Sciences and Technologies, Latvia, **Āris Jansons**, Latvian State Forest Research Institute 'Silava', Latvia University of Life Sciences and Technologies, Latvia
*Radial growth response of Japanese walnut (*Juglans Ailantifolia*) to meteorological conditions in Latvia*

Agnese Anta Liepina, Latvian State Forest Research Institute 'Silava', Latvia, **Diāna Jansone, Valters Samariks, Āris Jansons**, Latvian State Forest Research Institute 'Silava', Latvia University of Life Sciences and Technologies, Latvia
The composition and richness of ground cover vegetation in drained forest stands

Aigars Strubergs, Linards Sisenis, Ziedonis Sarmulis, Latvia University of Life Sciences and Technologies, Latvia
Use of automatically obtained data in the quantitative and qualitative evaluation of harvester operator training

Raitis Melniks, Janis Ivanovs, Andis Lazdins, Latvian State Forest Research Institute 'Silava', Latvia
Machine learning based classification of peat layer thickness in Latvia using national forest inventory data

13:15- 14:15 **Dinner time**



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14:15-16:00

Life Sciences - Forestry, Agricultural Sciences and Veterinary Medicine

Chairperson:

Parallel Session, Main Building of LBTU, Room 293

Toms Kondratovičs, Latvian State Forest Research Institute 'Silava', Latvia University of Life Sciences and Technologies, Latvia, **Margarita Daina Burša**, **Magda Lote Auziņa**, Latvian State Forest Research Institute 'Silava', Latvia

Responses of hybrid aspen in vitro cultures to different proportions of red and blue light

Kārlis Bičkovskis, **Valters Samariks**, **Āris Jansons**, Latvian State Forest Research Institute 'Silava', Latvia University of Life Sciences and Technologies, Latvia

Tree litter production in coniferous old-growth forests on organic soils

Inta Jakobija, Institute of Plant Protection Research Agrihorts, Latvia University of Life Sciences and Technologies, Latvia, **Biruta Bankina**, **Jānis Kaņeps**, Latvia University of Life Sciences and Technologies, Latvia

*Occurrence of fruit and leaf diseases on Japanese quince (*Chaenomeles Japonica*) in Latvia*

Jānis Kaņeps, **Biruta Bankina**, Latvia University of Life Sciences and Technologies, Latvia, **Inga Moročko-Bičevska**, Institute of Horticulture, Latvia

*The evaluation of tan spot phenotype and the presence of necrotrophic effectors in the population of *Pyrenophora Tritici-Repentis* in Latvia*

Laura Voiko, Latvia University of Life Sciences and Technologies, Latvia

Current attitude and use of perioperative analgesia in dogs and cats by Latvian veterinarians

Līga Ansonska, Latvia University of Life Sciences and Technologies, Latvia

Histopathological changes in selected organs of hunter-killed wild boars naturally infected with African swine fever virus Genotype II

Sandugash Sadikaliyeva, **Kamshat Shorayeva**, **Zhandos Abay**, **Kuanish Jekebekov**, **Yeraly Shayakhmetov**, **Elina Kalimolda**, **Alisher Omurtay**, **Syrym Kopeyev**, **Aziz Nakhanov**, **Bolat Yespembetov**, **Lespek Kutumbetov**, **Balzhan Myrzakhmetova**, **Kulyaisan Sultankulova**, **Markhabat Kassenov**, **Kunsulu Zakarya**, **Ainur Nurpeisova**, Research Institute for Biological Safety Problems (RIBSP), Kazakhstan

Isolation of the SARS-COV-2 virus from domestic animals

15:45 – 16:15 Discussions and Coffee Break

16:15-17:15

Social Sciences - Education

Chairpersons:

Parallel Session, Main Building of LBTU, Room 293

Ilona Beizitere, Latvia University of Life Sciences and Technologies, Latvia, **Ieva Brence**, Turība University, Latvia, **Baiba Rivza**, Latvia University of Life Sciences and Technologies, Latvia

The Europe Union Green Deal as a factor for changes in business: education perspective

Ieva Brazauskaite-Zubaviciene, Kauno kolegija Higher Education Institution, Lithuania, **Anna Vintere**, Latvia University of Life Sciences and Technologies, Latvia

The impact of Covid-19 on the emotional and psychological well-being of students



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Natalija Sergejeva, Natalja Vronska, Baiba Briede, Latvia University of Life Sciences and Technologies, Latvia, **Inna Samuilik**, Institute of Life Sciences and Technologies, Daugavpils University, Institute of Applied Mathematics, Riga Technical University, Latvia

The use of artificial intelligence by students of information technology programmes

Līga Zvirgzdina, Latvia University of Life Sciences and Technologies, Latvia, **Evija Kopeika**, Riga Technical University, Latvia

The need and role of high-level math skills in engineering studies

17:30-... Excursion to the Jelgava Palace and Tombs of the Dukes of Courland

9:00-10:40

Engineering Sciences -

Environmental Engineering and Landscape Architecture, Construction and Geodesy

Chairperson: **Ilze Janpavle**

Main Building of LBTU, Room 293

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Ilze Janpavle, Una Īle, Latvia University of Life Sciences and Technologies, Latvia

The influence of active leisure areas on the visual quality of the urban environment: the case study of Riga and Tallinn

Ieva Kraukle, Latvia University of Life Sciences and Technologies, Latvia, **Edgars Jūrmalis**, Latvian State Forest Research Institute 'Silava', University of Latvia, Latvia, **Ilze Stokmane, Kristīne Vugule**, Latvia University of Life Sciences and Technologies, Latvia

Urban and peri-urban forest area stakeholder identification, case study of 'Bernāti' and 'Ogres Zilie kalni' nature parks

Edgars Kraskevičs, Armands Celms, Latvia University of Life Sciences and Technologies, Latvia, **Jevgenijs Rusinovs**, TILTPROJEKTS LLC, XREF LLC, Latvia

The deformation monitoring system on the Brasa overpass in Riga

Vilda Grybauskiene, Gitana Vyciene, Kaunas Forestry and Environmental Engineering University of Applied Sciences, Lithuania, **Inga Grinfelde**, Latvia University of Life Sciences and Technologies, Latvia

Rainwater discharge from green roofs at natural conditions

Sindija Liepa, Inga Grinfelde, Jovita Pilecka-Ulcugaceva, Anda Bakute, Latvia university of Life Sciences and Technologies, Latvia, **Juris Burlakovs**, University of Latvia, Latvia

Integration of module of nitrification in soil active layer in the conceptual hydrological model METQ

Katrīna Muižniece, Jovita Pilecka-Ulcugaceva, Inga Grinfelde, Latvia University of Life Sciences and Technology, Latvia

Transition financing in agriculture: Baltic country case study

Giedrė Ivavičiūtė, Vytautas Magnus University, Kaunas Forestry and Environmental Engineering University of Applied Sciences, Klaipėda State University of Applied Sciences

Changes in Lithuanian meadows and natural pasture areas over a 20-year period and trends

10:40 – 10:50 Discussions and Coffee Break



10:50-12:20

Engineering Sciences -

**Agricultural Engineering, Information and Communication Technologies, Wood Processing ,
Food Science**

Chairperson: **Atis Kļaviņš**

Main Building of LBTU, Room 293

Arturs Lozbergs, Kaspars Vartukapteinis, Liene Kancevica, Latvia University of Life Sciences and Technologies, Latvia

A review on semi transparent solar panels application on greenhouse rooftops

Lauris Melders, Ruslans Smigins, Aivars Birkavs, Latvia University of Life Sciences and Technologies, Latvia

Data acquisition system for vehicle engine sensors: a review

Atis Kļaviņš, Latvia University of Life Sciences and Technologies, Latvia

Robotic process automation in small and medium enterprises – a review

Daniels Kotovs, Aleksejs Zacepins, Latvia University of Life Sciences and Technologies, Latvia

Enhancing precision beekeeping by the data crowdsourcing

Anita Avena, Liene Ozola, Anete Ķeķe, Latvia University of Life Sciences and Technologies, Latvia

Sambucus Nigra fruits and their processing solutions: a review

Maris Lauberts, Matiss Pals, Jevgenija Ponomarenko, Alexandr Arshanitsa, Latvian State Institute of wood chemistry

Dissolution behaviour of black alder bark extractives in polyurethane synthesis media: a comprehensive study

12:30 Departure from main building of university to Jelgava Old Town House

(Discussions, Sightseeing, Farewell dinner)



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Special Session with Tashkent Institute of Chemical Technology

Time 9:00 – 11:30 (Riga time), 11:00 – 13:30 (Tashkent time)

Title: **Rural development in Uzbekistan**

Chairperson: **Salijonova Shakhnoza**

Place:

Shoirakhon Isroilova, Kamar Serkaev, Madina Khamidova, Tashkent Institute of Chemical Technology, Uzbekistan
Biochemical analysis of melon seeds: the role of vitamins and fatty acids in nutrition

Gulnoza Djaxangirova, Nodira Kurbanova, Tashkent Institute of Chemical Technology, Uzbekistan, **Bakhtiyor Kurbanov**, Institute of Nuclear Physics at the Academy of Sciences, Uzbekistan
Identification of the main elements of wheat cultivated in different regions of Uzbekistan

Octavio Calvo-Gomez, Akbarali Ruzibayev, Rano Akramova, Shakhnozakhon Salijonova, Shakhnozakhon Gaipova, Sarvar Khodjaev, Tashkent Institute of Chemical Technology, Uzbekistan
Rosemary essential oil by hydrodistillation. SPME-GC-MS characterization

Octavio Calvo-Gomez, Akbarali Ruzibayev, Shakhnozakhon Salijonova, Shakhnozakhon Gaipova, Sarvar Khodjaev, Zulfiyakhon Khakimova, Dilshod Rakhimov, Tashkent Institute of Chemical Technology, Uzbekistan
Chemometrics as an aid to quickly evaluate galactomanans food additives through infrared spectroscopy

Akbarali Ruzibayev, Ahror Abdurakhimov, Octavio Calvo-Gomez, Tashkent Institute of Chemical Technology, Uzbekistan, **Shahlo Akhmedova, Sherzod Kurambayev**, Urgench State University, Uzbekistan
Improving the quality of cottonseed oil glycerol and its application in food products

Atakhodjaeva Inoyat, Rano Akramova, Ulugbek Suyundikov, Tashkent institute of chemical technology, Uzbekistan
Consumption of rabbit meat as a benefit for the population as an ecological product

Artikov A., Usmanov B.Sh., Masharipova Z., Mamayeva D., Rejabov S., Tashkent institute of chemical technology, Uzbekistan
Phase balance modeling in convective drying of materials

Artikov A., Usmanov B. Sh. , Mamaeva D. , Masharipova Z., Tashkent institute of chemical technology, Uzbekistan
Effect of size of melon pieces on energy consumption in microwave drying

Nutfillo Ibragimov, Madina Sayfullayeva, Bukhara state university, the department of tourism and hotel management, Bukhara, Uzbekistan
The role of sustainability criteria in controlling the quality of agritourism services in Uzbekistan

Lola Ilieva, Keldiyor Davlatov, Malohat Djumaniyazova, Tashkent Institute of Chemical Technology, Uzbekistan, **Aysafar Murtazaeva**, Uzbekistan state world languages university, Uzbekistan
Development of professional communicative competences of students

Gulnoz Komilova, Hamudulla Sarsenbayev, Toxir Maxkamov, Tashkent Chemical Technological Institute, Uzbekistan, **Aisafar Murtazaeva**, Uzbekistan State World Language University, Uzbekistan
The importance of problem educational technology in the development of students' oral speech