
9th International Conference “Human-Nutrition-Environment”

implemented as part of the **Regional Initiative of Excellence** project

8-9 November 2023

HONORARY PATRONAGE:

prof. dr hab. Sylwester Czopek, Rector of University of Rzeszow

Władysław Ortyl, Marshal of the Podkarpackie Voivodeship

Place and date of the conference:

**8-9 November 2023, Congress - Conference Centre D-9,
University of Rzeszow, Zelwerowicza 4 St., 35-601 Rzeszow, Poland**

all information on the website:

<https://sites.google.com/view/human-nutrition-environment/home>

Information for applicants:

contact mail: **8th.scientific.conference@gmail.com**

Scientific Committee:

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dr Bogdan Saletnik
mgr inż. Magdalena Kowalczyk
mgr Karol Pietrzyk

PROGRAMME

08.11.2023

8.30 – 9.30

Registration

09.30 – 10.00

Opening ceremony (D-9 hall no. 108)

prof. dr hab. Sylwester Czopek – Rector UR

prof. dr hab. Idalia Kasprzyk – Vice-Rector for the College of Natural Sciences

prof. dr hab. Jadwiga Stanek-Tarkowska – Director of Institute of Agricultural Sciences, Environment Management and Protection

dr hab. Ireneusz Kapusta, prof. UR – Director of Institute of Food Technology and Nutrition

prof. dr hab. inż. Czesław Puchalski – Project Manager

Development Strategy for Agriculture Science - **Regional Initiative of Excellence**

Project presentation of Development of research potential in the field of agricultural sciences University of Rzeszow as a chance for the food economy

PLENARY LECTURES (D-9 hall no. 108)

chairmans: **prof. dr hab. inż. Maciej Balawejder, dr hab. inż. Radosław Michał Bonikowski prof. PŁ**

10.00 – 10.30

prof. Paulo Brito – Instituto Politécnico de Portalegre, VALORIZA Research Centre for Endogenous Resource Valorization; Portugal

Renewable gases production Technologies (on-line)

10.30 – 11.00

prof. Manuel Jesús Hermoso Orzáez; prof. Juan Cámara Aceituno – Universidad de Jaén; Spain
Analysis of the measurement of Eco-efficiency in EU countries with data envelopment analysis methodology (DEA) in the periods 2005-2012 and 2012-2020 (on-line)

11.00 – 11.30

assoc. prof. Maja Makagon – Department of Animal Science, University of California, Davis; USA
The impact of rearing on laying hen behavior, cognition, and bone integrity

11.30 – 12.00

dr. Olha Andrieieva – Department of Nature Ecosystems Protection, Institute of Ecology of the Carpathians NAS of Ukraine, Lviv; Ukraine

The development of the scientific monitoring program for of the revitalization of territories affected by the activities of coal mines in the Chervonograd mining district (Ukraine) and its testing

12.00 – 14.00

Coffee break / lunch

14.00 – 18.00

Lectures and posters sessions (D-9 hall no. 108)

chairmans: dr inż. Karolina Pycia, dr inż. Anita Zapałowska

14.00 – 14.30

Business cooperation with Delft University of Technology

Gerard van der Valk, Matthijs Leegwater – Delft University of Technology in the Netherlands

14.30 – 14.40

Kamil Szopa

Use of different milk proteins for production of probiotic cow's milk

14.40 – 14.50

Walid Yeddes

Prevention of Lipid Oxidation and Improvement of Barrier Properties of Coated Freeze-Dried Chicken Meat with Gelatin-Chitosan Film or Coating Enriched with Tunisian Rosemary (*R. officinalis* L.) Extract

14.50 – 15.00

Radosław Bogusz

Physicochemical characteristics of black soldier fly (*Hermetia illucens*) larvae obtained by different drying methods

15.00 – 15.10

Adrianna Przybyszewska

The effect of zinc oxide nanoparticles on the optical and sorption properties of pectin edible films

15.10 – 15.20

Gabriela Łukasik

Optimizing the Production Process of Edible Films Made from Citrus Pectin as Single-Use Packaging for Instant Coffee

15.20 – 15.30

Hamza Gadhomi

Biochemical composition, antioxidant capacity and protective effects of three fermented plants beverages on hepatotoxicity and nephrotoxicity induced by carbon tetrachloride in mi

15.30 – 15.40

Rguez Safa

Effect of *Tetraclinis articulata* essential oil emulsion on the technical and phenolic maturity of Red Globe Grape variety (*Vitis vinifera* L.)

15.40 – 15.50

Klara Žbik

Impact of various gluten-free flours on the muffins formulated with psyllium and linseed for people on a Low-FOD

15.50 – 16.00

Marcin Halicki

Project supply chain - the analysis and risk management from the perspective of the use of artificial neural networks

1. **Aleksandra Kępska** - The influence of blackberry (*Vaccinium myrtillus* L.) extracts on the viability of a human colorectal cancer cell line
2. **Małgorzata Rak** - Analysis of microbiological composition of meat of selected game animals
3. **Kinga Hyla** - Antifungal activity of rhamnolipid biosurfactant produced by *Pseudomonas aeruginosa* #112 against plant pathogenic fungi
4. **Olga Mierzejewska-Buchalik** - Antioxidant properties of honey with the addition of nettle
5. **Paulina Furdak** - Antioxidant properties of various forms of garlic and ramsons
6. **Magdalena Krystyjan** - Application perspectives for starch/chitosan/graphene oxide nanocomposites
7. **Hajduk Edmund** - Bioaccumulation of Cu, Fe, Pb and Ni in oat biomass grown on light soil fertilized with ashes
8. **Ewelina Książek** - Bioconversion of glycerol into citric acid
9. **Dorota Grabek-Lejko, Mateusz Wolanin, Aleksandra Szpytma, Danuta Pajda, Czesław Puchalski** - Biological properties of recently described wild bramble *Rubus oklejewiczii* in comparison with widely distributed in Poland *Rubus plicatus*
10. **Leszek Potocki** - Biopreparation consisting of bacteriophages for the control of drug-resistant *Escherichia coli*
11. **Grzegorz Bartosz, Izabela Sadowska-Bartosz, Kacper Kut** - Cellular effects of low concentrations of nitroxyl free radicals
12. **Piotr Klimowicz** - Changes in the composition of essential amino acids of chicken meat after feeding hens with feeds with different amounts of soybean and narrow-leaved lupin
13. **Paweł Wywrocki** - Characteristics of the agricultural and food raw material supply chain
14. **Małgorzata Szostek** - Chemical speciation of trace elements in soil fertilized with ash from biomass combustion
15. **Izabela Dusza** - Combined therapy of bacteriophages and biosurfactants in treatment of *S. hyicus*
16. **Jagoda Żurek, Mariusz Rudy, Renata Stanisławczyk** - Consumer preferences related to the purchase and consumption of meat and meat products
17. **Jan Buczek** - Content of phenolic acid and yielding of hybrid wheat in response to growing year under integrated management
18. **Wacław Jarecki** - Development of plant production in Poland over the years 2011-2021
19. **Adrianna Bojarczuk** - Dietary intake of resistant starch among adult Polish omnivores
20. **Paulina Duma-Kocan** - Effect of addition infusion of rosemary on the stability oxidative on model meat products during cold storage
21. **Marta Jańczak-Pieniążek** - Effect of cropping systems on antioxidant potential and phenolic acid profiles in triticale grain
22. **Barbara Drygaś, Joanna Kreczko, Ewa Szpunar-Krok, Marta Jańczak-Pieniążek, Adam Jezierski** - Effect of extracts of the brown algae *Ascophyllum nodosum* and *Fucus vesiculosus* on seed germination parameters in representatives of selected botanical families

23. **Ewa Szpunar-Krok** - Effect of foliar application of biostimulants on yield and yield structure of potato tubers
24. **Gabriela Kamaj** - Effect of ozone-enriched atmosphere on antioxidant activity of highbush blueberry fruit covered with edible film
25. **Paulina Książek-Trela** - Effect of three commercial formulations containing effective microorganisms on flurochloridone degradation in soil
26. **Barbara Stadnik** - Efficiency of biological progress in breeding and cultivation of oat (*Avena sativa* L.)
27. **Marta Bochniak** - Enhancing Rapeseed Oil Quality: Exploring Pressing Methods in Food Technology and Nutrition
28. **Kamil Królikowski** - Enhancing the Biological Properties of Young Barley via Induced Biosynthesis of Bioactive Compounds with Ozone
29. **Michał Miłek, Katarzyna Czernisz** - Extraction of herbal polyphenols using alternative solvents
30. **Sandra Karlik** - Functional food and its importance in human nutrition
31. **Jadwiga Topczewska** - Hucul horses in southeastern Poland as an element of biodiversity
32. **Zuzanna Posadzka** - Influence of baking method on quality of wholegrain wheat bread
33. **Zofia Sokołowicz** - Influence of packaging type on microbiological quality of eggs stored in different thermal conditions
34. **Monika Wereńska** - Information and communication technologies in the distribution of fermented foods
35. **Natalia Matłok, Tomasz Piechowiak, Paweł Wywrocki, Anita Zapałowska, Małgorzata Szostek, Maciej Balawejder** - Innovative Post-Harvest Processing System Enhancing the Shelf Life of Cranberries in a Residue-Free Manner
36. **Oksana Petrusha** - Measuring the porosity of bakery products using an innovative method with ImageJ software
37. **Ewelina Słysz, Czesław Puchalski, Bogdan Saletnik, Grzegorz Zaguła, Aneta Saletnik, Marcin Bajcar** - Can magnetic field preserve apples?
38. **Maciej Balawejder, Natalia Matłok, Małgorzata Szostek, Tomasz Piechowiak, Radosław Józefczyk** - Method of Producing Dessert Raspberries with Enhanced Bioactive Compounds and Increased Commercial Value
39. **Wiktoria Szpakowska** - Microbiological quality analysis of traditional 'Parenica' sheep's milk cheese
40. **Magdalena Podbielska, Ewa Szpyrka** - Microplastics as an emerging pollution and its influence for human health
41. **Gabriela Świniuch** - NADPH oxidases in various organisms
42. **Maria Czernicka, Aleksandra Hejsak** - Modern technological solution in food warehouses
43. **Ewelina Szczerba, Iwona Makuch-Pietraś** - Phosphorus as an indicator of anthropogenic changes in the soil environment on the example of differently use soils from region Grzęda Sokalska

44. **Małgorzata Pawłowska, Agata Znamiorska-Piotrowska, Oksana Petrusha, Katarzyna Szajnar, Magdalena Kowalczyk, Kamil Szopa** - Probiotic lactose-reduced fermented goat's milk with lyophilised pitaya fruit
 45. **Wanda Krupa** - Problems in the logistics of transporting slaughter animals
 46. **Agnieszka Podolak** - Production and trade in farm animals in the European Union
 47. **Greta Adamczyk, Inna Bobel** - Properties of waxy corn starch gel containing beetroot extract
 48. **Joanna Kaszuba** - Quality evaluation of gluten-free cookies enriched with pea and soy protein isolates
 49. **Ewelina Książek** - Rapeseed oil Market and Forecast
 50. **Agata Pawłowska** - Sambucus nigra - an old species, a new fashion. The content of pro-health compounds in fruit juices with the addition of elderberry (*S. nigra* L.) flower infusion
 51. **Marta Bochniak** - Smart Packaging: Prolonging Freshness and Enhancing Quality in Fermented Foods
 52. **Monika Wereńska** - Sous-vide cooked goose meat
 53. **Justyna Szczepańska-Stolarczyk** - Superfruits as the basic ingredient of functional fruit-herbal beverages: physicochemical characteristic and consumer acceptance
 54. **Rolf Katarzyna, Olga Januszka** - The association of potential renal acid load (PRAL) of food with chosen socio demographic and health factors
 55. **Anna Górka** - The content of selected bioelements and antioxidant potential of herbal medicinal raw materials
 56. **Magdalena Słowik-Borowiec** - The effect of fermentation by *Bacillus subtilis* on the disappearance kinetics of pesticide residues in legume seeds
 57. **Wioletta Michalik** - The effect of sugar type on the respiratory competence of the yeast cells
 58. **Renata Tobiasz-Salach** - The influence of selected microbiological preparations on the yield of winter wheat
 59. **Łukasz Kogut** - The influence of the fermentation process on the content of antioxidant substances in home-made beers
 60. **Karolina Pycia** - The role of selected superfruits in shaping the quality of gluten-free bread
 61. **Marzena Mazurek** - The total polyphenols in blueberry plants propagated conventionally and in vitro method
 62. **Karolina Mroczek** - Ultrasound-assisted extraction as a technique for preparing improved infusions as functional beverage bases
 63. **Magdalena Kowalczyk, Magdalena Kowalczyk, Agata Znamiorska-Piotrowska, Małgorzata Pawłowska, Katarzyna Szajnar, Magdalena Buniowska-Olejnik, Oksana Petrusha, Kamil Szopa** - Probiotic low-lactose fermented goat's milk with added inulin
 64. **Justyna Koc-Jurczyk, Agnieszka Podolak, Łukasz Jurczyk** - Biowaste in reverse logistic
 65. **Miłosz Zardzewiały** - The content of selected bioactive compounds and the microbiological load of radish tubers after the application of gaseous ozone
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09.11.2023

PLENARY LECTURES

chairmans: prof. dr hab. inż. Małgorzata Dżugan, prof. dr hab. inż. Danuta Kołożyn-Krajewska

09.00 – 09.30

prof. Marco Cantonati – Department of Biological, Geological, and Environmental Sciences,
University of Bologna; Italy

Healthy freshwaters for healthy people

09.30 – 10.00

Mykola Gusti, Ph.D. D.Sc. – International Institute for Applied Systems Analysis; Laxenburg; Austria

A modelling framework for assessing GHG mitigation and nature restoration policies in agriculture and forestry under climate change

10.00 – 10.30

prof dr. Édgar Pérez Esteve – Universitat Politècnica de Valencia; Spain

New Methods for Cacao processing and quality analysis

10.30 – 11.00

dr. Emőke Korzenszky – First Secretary Agriculture & Environment, Hungarian Embassy in Poland

The role of regional cooperation in addressing Food Chain Risks

11.00 – 12.00

Closing Ceremony
