



Faculty of Agriculture  
University of Banja Luka



**XIII INTERNATIONAL SYMPOSIUM ON AGRICULTURAL SCIENCES**



# **BOOK OF ABSTRACTS**

27-30 May 2024, Trebinje, Bosnia and Herzegovina

# XIII International Symposium on Agricultural Sciences "AgroReS 2024"

27-30 May 2024, Trebinje, Bosnia and Herzegovina

## BOOK OF ABSTRACTS

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# XXIII INTERNATIONAL SYMPOSIUM ON AGRICULTURAL SCIENCES

AgroReS 2024



and

## XXIX CONFERENCE OF AGRICULTURAL ENGINEERS OF THE REPUBLIC OF SRPSKA

27-30 May 2024

Trebinje, Bosnia and Herzegovina

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# Symposium Program

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## SYMPOSIUM PROGRAM OVERVIEW

Monday, 27 May 2024		
12:00 – 19:00	Participant registration	Hotel <i>Leotar</i> , Lobby
16:00 – 17:00	Opening ceremony	HET Hall
17:00 – 18:30	Plenary lectures	HET Hall
19:30	Sports event	Sport Hall <i>Miloš Mrdić</i>
Tuesday, 28 May 2024		
08:30 – 17:00	Participant registration	Hotel <i>Leotar</i> , Lobby
09:00 – 13:30	Session 1: Horticulture	Hotel <i>Leotar</i> , Large Salon
09:00 – 13:00	Session 2: Agricultural economics and rural development	Hotel <i>Leotar</i> , Red Salon
14:00 – 16:00	Lunch break	
16:00 – 18:00	Homage: Agro-knowledge Journal - our 25 years Round table: Transfer of knowledge and innovations in agriculture – from individual cases to functional AKIS	Hotel <i>Leotar</i> , Large Salon
20:00 – 21:00	Cultural event: Concert of the City Choir <i>Tribunia</i>	Cultural centre Trebinje
Wednesday, 29 May 2024		
08:30 – 17:00	Participant registration	Hotel <i>Leotar</i> , Lobby
09:00 – 13:30	Session 3: Crop Science	Hotel <i>Leotar</i> , Large Salon
09:00 – 12:00	Session 4: Animal Science	Hotel <i>Leotar</i> , Red Salon
13:30 – 14:00	Promotion of the book: Memorial to Academician Vaskrsija Janjić	Hotel <i>Leotar</i> , Large Salon
14:00 – 16:00	Lunch break	
14:30 – 17:30	XXIX Conference of Agricultural Engineers of the Republic of Srpska: Youth in Agriculture	Hotel <i>Leotar</i> , Large Salon
20:00	Gala evening	Hotel <i>Leotar</i> , Restaurant
Thursday, 30 May 2024		
09:00 – 13:00	Excursion: Visit to Vjetrenica Cave and Tvrdoš Monastery	

## Monday, 27 May 2024

16:00 - 17:00	<b>OPENING CEREMONY</b>	HET Hall
	<ul style="list-style-type: none"> <li>– Zlatan Kovačević, Dean of the Faculty of Agriculture, University of Banja Luka</li> <li>– Radoslav Gajanin, Rector of the University of Banja Luka</li> <li>– Savo Minić, Minister of Agriculture, Forestry and Water Management of the Republic of Srpska</li> <li>– Željko Budimir, Minister of Scientific and Technological Development and Higher Education of the Republic of Srpska</li> <li>– Mirko Ćurić, Mayor of the Trebinje City</li> <li>– Boris Pašalić, President of the Organizing Committee</li> </ul>	
	<b>PLENARY LECTURES</b>	HET Hall
17:00 - 17:30	<i>Patrizia Pugliese</i>	ORGANIC AGRICULTURE FOR TERRITORIAL DEVELOPMENT: THE EXPERIENCE OF ORGANIC DISTRICTS
17:30 - 18:00	<i>Daniel Falta</i>	AGRICULTURE 4.0 IN LIVESTOCK PRODUCTION SYSTEMS
18:00 - 18:30	<i>Adrian Asānica</i>	CHALLENGES AND OPPORTUNITIES FOR PRODUCTION SYSTEM IN BERRY CROPS

## Tuesday, 28 May 2024

<b>Session 1</b>	<b>HORTICULTURE</b>	Large Salon
	Chair: <i>Dragana Šunjka, Miljan Cvetković, Dejan Bošnjak</i>	
09:00 - 9:10 O1_01	<i>Gordana Đurić, Boris Pašalić, Saša Lalić, Nikola Mičić</i>	REGIONIZATION – AN OPEN ISSUE OF DEVELOPMENT AND SUSTAINABLE INTENSIFICATION OF FRUIT PRODUCTION
09:10 - 09:20 O1_02	<i>Dejan Bošnjak, Aleksandar Stanisavljević, Ivna Štolfa Čamagajevac, Dejan Agić, Marija Špoljarević, Antonija Strilić, Matej Horvat</i>	EVALUATION OF THE INTERNAL QUALITY OF CONTEMPORARY APPLE VARIETIES SUITABLE FOR ORGANIC PRODUCTION
09:20 - 09:30 O1_03	<i>Miljan Cvetković, Jelisaveta Seka Cvijanović, Jelena Topić</i>	VARIETAL SPECIFICITIES OF DORMANT PRUNING OF TWO-DIMENSIONAL TRAINING SYSTEMS OF EUROPEAN PLUM ( <i>Prunus domestica</i> L.)
09:30 - 09:40 O1_04	<i>Mira Milinković, Svetlana M. Paunović, Aneta Buntić, Magdalena Knežević, Jelena Pavlović, Dragana Vidojević</i>	THE USE OF 1-METHYLCYCLOPROPENE (1-MCP) IN NECTARINE STORAGE

09:40 - 09:50 O1_05	<i>Juan Luis Fernández Lorenzo, Ana Couso Viana, Rosa Mosquera Losada, Antonio Rigueiro Rodríguez, Svjetlana Zeljković</i> ESTABLISHMENT OF IN VITRO ACCESSIONS OF TWO GALICIAN MONUMENTAL CHESTNUT TREES
09:50 - 10:00 O1_06	<i>Dragana Bošković, Nuray Baser, Slavica Vuković, Sanja Lazić, Aleksandra Šušnjar, Dušan Čulum, Antonije Žunić, Jelena Ećimović, Dragana Šunjka</i> EVALUATION OF <i>Pimpinella anisum</i> ESSENTIAL OILS ON EGG-LAYING BEHAVIOR OF <i>Drosophila suzukii</i> : A MULTIPLE-CHOICE TEST APPROACH
10:00 - 10:40	POSTER PRESENTATIONS: P1_01 – P1_25
10:40 - 11:00	Discussion
11:00 - 11:20	Coffee break
	Chair: <i>Darko Jakšić, Miljan Cvetković, Juan Luis Fernández Lorenzo</i>
11:20 - 11:30 O1_07	<i>Bogoljub Kandić, Jelena Latinović, Nedeljko Latinović</i> INTENSITY OF SPREAD AND ECONOMIC IMPORTANCE OF ESCA DISEASE IN MONTENEGRO
11:30 - 11:40 O1_08	<i>Aleksandar Piperevski, Violeta Dimovska, Atanas Runchev, Dejan Milanov, Aleksandar Runchev</i> DETERMINATION OF FREE HYDROCYANIC ACID IN HOMEMADE PRODUCED FRUIT BRANDIES
11:40 - 11:50 O1_09	<i>Numan Ali, Amna Shoaib</i> VANILLIC ACID MEDIATED DISEASE TOLERANCE IN MUNGBEAN AGAINST <i>Macrophomina phaseolina</i> THROUGH THE ENHANCEMENT OF PLANT ANTIOXIDANT DEFENSE GENE
11:50 - 12:00 O1_10	<i>Hajar Bencheikh, Mohamed El-Aalaoui, Mohamed Sbaghi, Abdelaziz Yasri, Mohamed Dakir, Aziz Aboulmouhajir</i> BOTANICAL DESCRIPTION AND CHEMICAL PROFILE OF <i>Opuntia</i> spp. (Cactaceae)
12:10 - 12:50	POSTER PRESENTATIONS: P1_26 – P1_61
12:50 - 13:30	Discussion
14:00 - 16:00	Lunch break
<b>Session 2</b>	<b>AGRICULTURAL ECONOMICS AND RURAL DEVELOPMENT</b>
	Red Salon
	Chair: <i>Gordana Rokvić Knežić, Ivo Zdráhal, Anna Hajdu</i>
09:00 - 09:10 O2_01	<i>William H. Meyers</i> GLOBAL FOOD SECURITY CHALLENGES: OPPORTUNITIES AND THREATS
09:10 - 09:20 O2_02	<i>Ivo Zdráhal, Sebastian Stępień, Francois S. Lategan, Eliška Svobodová, Michal Borychowski, Agnieszka Sapa, Katarzyna Smędzik-Ambroży, Libor Grega</i> BARRIERS TO PARTICIPATE IN SHORT FOOD SUPPLY CHAINS: PRELIMINARY RESULTS FROM THE SURVEY AMONG FARMERS IN POLAND AND THE CZECH REPUBLIC

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09:20 - 09:30 O2_03	<i>Anna Hajdu</i> NAVIGATING PRESSURE: CORPORATE SOCIAL RESPONSIBILITY IN EASTERN EUROPEAN AGRICULTURE AMID GROWING CRITICISM AND PROTESTS
09:30 - 09:40 O2_04	<i>Željko Vaško</i> GREENING AGRICULTURE FROM THE PERSPECTIVE OF BOSNIA AND HERZEGOVINA
09:40 - 09:50 O2_05	<i>Hamidreza Solaymani Osbooei, Vesna Mrdalj, Milan Šipka</i> UNDENIABLE NECESSITY OF INNOVATIVE SYSTEMS AND NATURE BASED SOLUTION IN ADAPTATION TO CLIMATE CHANGE IN AGRICULTURAL SECTOR
09:50 - 10:00 O2_06	<i>Ranko Gantner, Zvonimir Steiner, Vesna Gantner</i> POTENTIAL ROLE OF LOW-INPUT FARMING IN SUSTAINABLE DEVELOPMENT OF AGRICULTURE AND MODERN SOCIETIES
10:00 - 10:10 O2_07	<i>Dragan Dokić, Vesna Gantner</i> THE IMPORTANCE OF ENSURING AGRICULTURAL PRODUCTION ON THE EXAMPLE OF THE REPUBLIC OF CROATIA
10:10 - 10:20 O2_08	<i>Marija Gjosheva Kovachevikj, Lazo Dimitrov, Despina Popovska Stojanov, Aleksandra Martinovska Stojcheska</i> FACTORS INFLUENCING RURAL YOUTH MIGRATION IN NORTH MACEDONIA
10:20 - 10:30 O2_09	<i>Milica Ilić, Zorica Srđević, Bojan Srđević, Jasna Grabić, Laslo Galamboš, Dušanka Cvijanović, Pavel Benka</i> ENHANCING ECOSYSTEMS' AND SOCIAL RESILIENCE: RESTORE4LIFE WETLAND RESTORATION INITIATIVE
10:30 - 10:40 O2_10	<i>Gordana Rokvić Knežić, Ljiljana Drinić, Jovana Lazendić</i> AGRICULTURE KNOWLEDGE AND INFORMATION SYSTEM IN REPUBLIKA SRPSKA
10:40 - 10:50 O2_11	<i>Nebojša Novković, Dragana Novaković, Blagoje Paunović</i> THE INFLUENCE OF YIELD AND PRICE OF SUGAR BEET FROM CURRENT YEAR ON SOWING AREA OF SUGAR BEET IN FOLLOWING YEAR
10:50 - 11:00 O2_12	<i>Nemanja Jalić, Jovana Antelj, Aleksandar Bačević, Milan Ivković, Nikolina Čerketa, Željko Vaško, Aleksandar Ostojić, Branko Drljača, Petar Nikolić</i> CONSUMER PREFERENCES ABOUT FRUIT BRANDIES
11:00 - 11:10 O2_13	<i>Ranko Sarić, Snežana Branković, Adiba Džudović</i> PRODUCTION OF WOOD ASSORTMENTS OF POPLAR CLONE POPULUS DELTOIDES AND CORN YIELD ON FLUVISOL
11:10 - 11:40	Discussion
11:40 - 12:00	Coffee break
12:00 - 12:20	POSTER PRESENTATIONS: P2_01 – P2_13
	Chair: <i>Željko Vaško, Marija Gjosheva Kovachevikj, Tamara Stojanović</i>
12:20 - 13:00	Discussion
14:00 - 16:00	Lunch break

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16:00 - 18:00	<b>HOMAGE: Agro-knowledge Journal - our 25 years *</b> <b>OMAŽ: Agroznanje – naših 25 godina</b> <b>ROUND TABLE: Transfer of knowledge and innovations in agriculture – from individual cases to functional AKIS *</b> <b>OKRUGLI STO: Transfer znanja i inovacija u poljoprivredi - od pojedinačnih slučajeva do funkcionalnog AKIS-a</b>	Large Salon
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*\* This part of the Symposium program is in Serbian.*

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Moderator: *Željko Vaško*, Faculty of Agriculture, University of Banja Luka

Panelists: *Aleksandar Ostojić*, vice-rector for scientific research and development, University of Banja Luka;  
*Goran Bursać*, Assistant Minister, Department for providing professional services in agriculture, Ministry of Agriculture, Forestry and Water Management of the Republic of Srpska;  
*Veselin Dutina*, director, Agrarian Fund of the City of Trebinje;  
*Dušan Andrijašević*, president, Association of breeders of Gatačko cattle

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20:00 - 21:00 **CULTURAL EVENT: Concert of the City Choir *Tribunia***

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Cultural centre Trebinje (venue in the center of the city)

*Aleksandra Rajković*, prof., conductor  
*Anja Đurić*, performer of traditional music  
*Ratomir Mijanović*, artistic director of the program

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## Wednesday, 29 May 2024

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<b>Session 3</b>	<b>CROP SCIENCE</b>	Large Salon
	<i>Chair: Jan Turan, Ranko Gantner, Branimir Nježić</i>	
09:00-09:10 O3_01	<i>Giulio D'Amato, Luigi Capodieci, Luigi Chiappinelli</i> <b>BLULEAF®: A DECISION SUPPORT SYSTEM (DSS) FOR AGRICULTURAL WATER MANAGEMENT</b>	
09:10-09:20 O3_02	<i>Mihajlo Marković, Đurađ Hajder, Milan Šipka, Mladen Todorović, Nery Zapata, Teresa A. Paço, Erminio E. Riezzo, Sabrija Čadro</i> <b>SMARTWATER PROJECT IMPLEMENTATION IN THE PERIOD 2021-2024 AND SMART MANAGEMENT OF LAND AND WATER RESOURCES IN BIH AGRICULTURE</b>	
09:20-09:30 O3_03	<i>Lazar Turšijan, Jan Turan, Aleksandar Sedlar, Filip Vasić</i> <b>ENHANCING CORN YIELD THROUGH VARIABLE SOWING: INTEGRATING SATELLITE AND DRONE TECHNOLOGIES FOR PRECISION AGRICULTURE</b>	

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09:30-09:40 O3_04	<i>Daniel Kalnin</i> SOIL NUTRIENT QULITY IN ORGANIC SOY PRODUCTION IN TOGO - A SURVEY
09:40-09:50 O3_05	<i>Michał Pol, Florian Tröber, Knut Schmidtke</i> THE UNDERGROUND PROPERTIES OF RIBWORT PLANTAIN
09:50-10:00 O3_06	<i>Filip Vasić, Aleksandar Sedlar, Jan Turan, Lazar Turšijan</i> OPTIMIZATION OF PESTICIDE APPLICATION USING PRECISION AGRICULTURE TECHNOLOGIES AND MODERN NOZZLES
10:00-10:10 O3_07	<i>Darko Jovanović, Vera Rajičić, Bojana Gavrilović, Ivana Živković, Biljana Šević, Viliana Vasilieva, Jelena Stojiljković</i> GROWING SEASON CONDITIONS AND PLANTING DENSITY IMPACT ON SOME MORPHOLOGICAL CHARACTERISTICS ON DIFFERENT MAIZE ( <i>Zea mays</i> L.) HYBRIDS
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10:50-11:10	Discussion
11:10-11:30	Coffee break
	Chair: <i>Željko Dolijanović, Vojka Babić, Biljana Kelečević</i>
11:30-11:40 O3_08	<i>Vojka Babić, Natalija Kravić, Zoran Jovović, Milosav Babić, Zlata Luthar, Violeta Anđelković</i> DIVERSITY AND REDUNDANCY ASSESSMENT OF MONTENEGRIN AND SLOVENIAN MAIZE LANDRACES CONSERVED IN MRIZP GENE BANK
11:40-11:50 O3_09	<i>Desimir Knežević, Danijela Kondić, Dragan Grčak, Milosav Grčak, Mirela Matković Stojšin, Dušan Urošević, Danica Mićanović, Aleksandar Paunović, Veselinka Zečević</i> VARIABILITY OF SPIKE SPIKELETS NUMBER IN BREAD WHEAT
11:50-12:00 O3_10	<i>Biljana Ristakjovska Shirgovska, Tatjana Prentovikj, Zoran Dimov, Snežana Katanski, Svetlana Vujić</i> INFLUENCE OF THE SEEDING RATE, ROW SPACING, AND CULTIVAR ON ALFALFA FORAGE YIELD IN THE FIRST PRODUCTION YEAR
12:00-12:10 O3_11	<i>Stevan Trivković, Danijela Kondić, Desimir Knežević</i> PROTEIN CONTENT IN WHEAT GRAINS AS A RESULT OF INTERACTION OF AGROECOLOGICAL CONDITIONS AND AGROTECHNICAL TREATMENTS
12:10-12:20 O3_12	<i>Dragan Grčak, Desimir Knežević, Milosav Grčak, Snežana Gošić Dondo, Dejan Dodig, Vesna Kandić, Miroljub Aksić, Slaviša Gudžić, Katerina Nikolić</i> DAMAGES IN WHEAT VARIETIES CAUSED BY CEREAL LEAF BEETLE ( <i>Oulema melanopus</i> L.) UNDER TREATMENT BY INSECTICID
12:20-12:30 O3_13	<i>Mihajlo Voruna, Zorana Đekanović, Relja Suručić, Duška Delić</i> MYCOTOXIN DETECTION IN FUSARIUM SPECIES COMPLEX ISOLATES: TOWARDS UNDERSTANDING TOXIN PRODUCTION AND MANAGEMENT STRATEGIES
12:30-13:10	POSTER PRESENTATIONS: P3_21 –P3_42
13:10-13:30	Discussion

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13:30-14:00	<b>PROMOTION OF THE BOOK: Memorial to Academician Vaskrsija Janjić *</b> <b>PROMOCIJA KNJIGE: Spomenica akademiku Vaskrsiji Janjiću</b>	Large Salon
<i>Novo Pržulj, Sava Vrbničanin, Biljana Kelečević, Siniša Mitrić</i>		
* This part of the Symposium program is in Serbian.		
14:00 - 16:00	Lunch break	
<b>Section 4</b>	<b>ANIMAL SCIENCES</b>	Red Salon
<i>Chair: Snežana Trivunović, Biljana Rogić, Ljuba Štrbac</i>		
09:00 - 09:10 O4_01	<i>Mária Kapusniaková, Milan Šimko, Miroslav Juráček, Ondrej Hanušovský, Michal Rolínek, Branislav Gálik, Matúš Džima</i> NUTRITIONAL ASPECTS OF TOTAL MIX RATION AND THEIR IMPACT ON THE ACTIVITY OF DAIRY COWS	
09:10 - 09:20 O4_02	<i>Dimitar Nakov, Aco Kuzelov, Slavča Hristov, Branislav Stanković, Jelena Miočinović, Marko Cincović</i> MASTITIS MAKES CHANGES IN THE BLOOD ANTIOXIDANT ENZYME ACTIVITY DURING THE TRANSITION PERIOD OF DAIRY COWS: PART II	
09:20 - 09:30 O4_03	<i>Branimir Vidović, Momčilo Šaran, Ljuba Štrbac, Dobrila Janković, Snežana Trivunović</i> POLYMORPHISM OF B-CASEIN IN HOLSTEIN COWS IN VOJVODINA	
09:30 - 09:40 O4_04	<i>Vesna Gantner, Zvonimir Steiner, Biljana Rogić, Ranko Gantner, Krešimir Kuterovac</i> THE POTENTIAL OF VARIOUS FATTY ACIDS FOUND IN MILK AND DAIRY PRODUCTS TO PREVENT CANCER	
09:40 - 09:50 O4_05	<i>Aleksandar Ignjatović, Blagoje Stojković, Stefan Stepić, Nikola Mihajlović, Predrag Perišić</i> IMPACT OF NON-GENETIC FACTORS ON REPRODUCTIVE TRAITS OF EWES AND LAMB WEIGHT UNTIL WEANING IN THE SJENICA PRAMENKA SHEEP	
09:50 - 10:00 O4_06	<i>Dušica Radonjić, Milan Marković, Božidarka Marković, Olga Jokanović, Milena Đokić</i> PLANT SPECIES RICHNESS AND BIOMASS CHEMICAL COMPOSITION OF THE PASTURES IN DIFFERENT AREAS OF MONTENEGRO	
10:00 - 10:10 O4_07	<i>Damir Rimac, Petar Marković, Dušan Gajić, Emir Mešanović</i> PRECISE FEEDING OF FATTENING PIGS AND ITS EFFECT ON BUSINESS ECONOMICS FOR THE EXAMPLE OF BOSNIA AND HERZEGOVINA	
10:10 - 10:20 O4_08	<i>Simeon Rakonjac, Snežana Bogosavljević-Bošković, Vladimir Dosković, Miloš Lukić, Zdenka Škrbić, Veselin Petričević, Milun D. Petrović</i> EFFECT OF REARING SYSTEM AND GENOTYPE OF LAYING HENS ON THE BREAKING STRENGTH OF TIBIA AND FEMUR	
10:20 - 10:40	Coffee break	

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10:40 - 10:50 O4_09	<i>Neđo Stokanović, Sava Spiridonović, Lidija Perić, Mirjana Đukić Stojčić</i> EFFECT OF DIFFERENT PRODUCTION SYSTEMS ON QUALITY OF TABLE EGGS
10:50 - 11:00 O4_10	<i>Michael Oke</i> AN OVERVIEW OF THE FISH ISSUES FACING GWAGWALADA'S FISH FARMERS AND TRADERS NIGERIA'S ABUJA
11:00 - 11:10 O4_11	<i>Sladana Preradović, Biljana Rogić, Božo Važić, Milica Čutković</i> INFLUENCE OF LIPIZZAN STALLIONS ON BODY MEASUREMENTS OF FOALS
11:10 - 11:20 O4_12	<i>Matuš Džima, Miroslav Juráček, Branislav Gálik, Milan Šimko, Michal Rolinec, Ondrej Hanušovský, Mária Kapusniaková</i> FATTY ACID PROFILE OF COMMERCIAL DRY DOG FOODS WITH AND WITHOUT INSECT
11:20 - 11:40	POSTER PRESENTATIONS: P4_01 – P4_16
11:40 - 12:00	Discussion
14:00 - 16:00	Lunch break

**XXIX CONFERENCE OF AGRICULTURAL ENGINEERS OF THE REPUBLIC OF SRPSKA: Youth in Agriculture \***

Large Salon

**XXIX САВЈЕТОВАЊЕ ИНЖЕЊЕРА ПОЉОПРИВРЕДЕ РЕПУБЛИКЕ СРПСКЕ: Млади у пољопривреди**

*\* This part of the Symposium program is in Serbian.*

14:30 - 14:45	Уводно обраћање	<i>Opening address</i>
14:45 - 15:00	<i>Бојан Ћикић</i> Пројектно позиционирање младих у пољопривреди	<i>Bojan Ćikić</i> Project Positioning of Young People in Agriculture
15:00 - 15:15	<i>Ђорђе Грујић</i> Активизам младих у служби руралног развоја	<i>Dorđe Grujić</i> Youth Activism in the Service of Rural Development
15:15 - 15:55	Панел 1: Изазови и прилике за младе у агробизнису Модератор: <i>Маринко Векић</i> , Учесници: <i>Мара Пупчевић, Лука Врачар, Игор Дабић, Немања Јалић, Бојана Петровић, Драгана Дувњак Крндија, Милош Галић</i>	Panel 1: Challenges and Opportunities for Youth in Agribusiness Moderator: <i>Marinko Vekić</i> , Participants: <i>Mara Pupčević, Luka Vračar, Igor Dabić, Nemanja Jalić, Bojana Petrović, Dragana Duvnjak Krndija, Miloš Galić</i>
15:55 - 16:15	Пауза за кафу	Coffee break
16:15 - 16:30	<i>Виолета Лемич</i> Исходи I фазе кампање Млади у пољопривреди	<i>Violeta Lemić</i> Outcomes of Phase I of the Youth in Agriculture Campaign



16:30 - 17:15	Панел 2: Институционална подршка младима у пољопривреди Модератор: <i>Петар Николић</i> , Учесници: <i>Саша Лалић, Драган Вучковић, Гордана Роквић Кнежић, Драган Шена, Радомир Вукелић, Кристина Дутина, Живан Митровић</i>	Panel 2: Institutional Support for Young People in Agriculture Moderator: <i>Petar Nikolić</i> , Participants: <i>Saša Lalić, Dragan Vučković, Gordana Rokvić Knežić, Dragan Šepa, Radomir Vukelić, Kritina Dutina, Živan Mitrović</i>
17:15 - 17:30	<i>Петар Николић</i> Млади и пољоприведа – поглед у будућност	<i>Petar Nikolić</i> Youth and agriculture - a look into the future
20:00	Gala evening	Hotel <i>Leotar</i> , Restaurant

### Thursday, 30 May 2024

09:00 – 13:00 EXCURSION: Visit to Vjetrenica Cave and Monastery Tvrdoš

## LIST OF THE POSTER PRESENTATIONS

### SESSION 1: HORTICULTURE

LARGE HALL

P1_01	<i>Ivana Radović, Aleksandar Radović, Slađana Savić, Milena Marjanović, Milica Miletić, Jelica Novaković, Zorica Jovanović</i> BIOCHEMICAL AND MORPHOLOGICAL ANALYSIS OF FRUIT QUALITY TRAITS OF DIFFERENT TRADITIONAL APPLE GENOTYPES FROM WESTERN SERBIA
P1_02	<i>Miroslav Lisjak, Jelena Ravlić, Tomislav Vinković, Andrijana Rebekić, Tihana Teklić</i> EFFECT OF HEAT STRESS ON ANTIOXIDANT STATUS IN APPLE LEAVES GROWN IN TWO DIFFERENT MICROCLIMATES
P1_03	<i>Nada Zavišić, Jelena Davidović Gidas, Gordana Đurić</i> PRELIMINARY EVALUATION OF THE FRUIT VALUE OF SELECTED WILD PEAR ( <i>Pyrus communis</i> L.) SEEDLINGS IN THE <i>EX SITU</i> COLLECTION OF THE AGRICULTURAL INSTITUTE
P1_04	<i>Sandra Bijelić, Borivoje Bogdanović, Draža Janković, Goran Jaćimović</i> PLANT PRODUCTION OF NEW CLONES OF HAZELNUT CULTIVARS BY GRAFTING ONTO TURKISH FILBERT ROOTSTOCK
P1_05	<i>Marina Mačukanović Jocić, Dragana Rančić</i> THE MORPHOLOGICAL FEATURES OF CORNELIAN CHERRY ( <i>Cornus mas</i> L., Cornaceae) POLLEN GRAINS
P1_06	<i>Dragana Rančić, Marina Mačukanović Jocić, Radenko Radošević</i> THE POSITION, MORPHOLOGY, AND STRUCTURE OF FLORAL NECTAR-SECRETING GLAND IN <i>Cornus mas</i> L. (Cornaceae)
P1_07	<i>Božana Odžaković, Vanja Čupina, Slavica Grujić, Staniša Latinović, Zoran Kukrić</i> DEVELOPMENT, QUALITY AND ANTIOXIDANT ACTIVITY OF CORNELIAN CHERRY FRUIT GELS
P1_08	<i>Danilo Vidović, Boris Pašalić</i> IMPACT OF BIOFUNGICIDES IN POSTHARVEST AND STORAGE OF CHERRY FRUITS

P1_09	<i>Snežana Stevanović, Ana Plečić, Tanja Petrović, Simo Stevanović, Aleksandar Leposavić, Milena Otović, Uroš Milovančević</i>
	THE EFFECT OF FREEZING AND FROZEN STORAGE ON THE QUALITY AND ANTIOXIDANT ACTIVITY OF RASPBERRY AND BLACKBERRY FRUITS
P1_10	<i>Ivanka Ćirić, Dragana Dabić Zagorac, Milica Sredojević, Milica Fotirić Akšić, Biljana Rabrenović, Stevan Blagojević, Maja Natić</i>
	VALORIZATION OF RASPBERRY SEEDS IN COSMETIC INDUSTRY
P1_11	<i>Maja Natić, Milica Fotirić Akšić, Lazar Pejić, Ivanka Ćirić, Dragana Dabić Zagorac, Milica Sredojević, Biljana Rabrenović</i>
	BIOACTIVE COMPOUNDS OF COLD-PRESSED RASPBERRY SEED OIL AND FUNCTIONAL PROPERTIES OF THE REMAINING OIL CAKE
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	UTILIZATION OF AGRICULTURAL WASTE IN BIOSORPTION OF ANTHOCYANINS
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	STATUS OF PESTICIDE APPLICATION EQUIPMENT AND THE POSSIBILITY OF APPLYING EUROPEAN STANDARDS AND REGULATIONS
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LARGE SALON

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**SESSION 4: ANIMAL SCIENCE**

RED SALON

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PI\_36

## **Physical and chemical properties of grape molasses produced from Vranec grape variety by traditional and industrial techniques**

Violeta Dimovska<sup>1</sup>, Fidanka Ilieva<sup>1</sup>, Emilija Arsov<sup>1</sup>, Aleksandar Piperevski<sup>1</sup>,  
Biljana Balabanova<sup>1</sup>, Biljana Vitanovska<sup>1</sup>

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### **Abstract**

Grape molasses is one of the popular and traditional food in the North Macedonia for the last 10 years. It is mostly produced in a traditional way under the name "Madžun". In this study, some physical and chemical properties of grape molasses (Madžun) from Vranec grape variety, produced using traditional (four samples) and industrial (one sample) techniques were investigated. The water-soluble dry matter contents of the samples were determined to be 61.67% (V5) to 75.17% (V2). The mean total sugar contents of the grape molasses (Madžun) samples were determined to be 47.27% (V5) and 72.42% (V3). Sucrose content in all samples was at the detection threshold (<0.1%). This indicates that no sugar was added in the production of grape molasses (Madžun). The total phenols (gallic acid) were identified in five samples and significant differences were observed between samples. Sensory analysis of the samples was carried out by a committee consisting of 7 members. All members are women with experience in sensory evaluation of plant-based foods. The following elements were evaluated: color, smell, taste, sweetness, acidity, texture and aftertaste. The maximum number of points is 20 (modified hedonic test). Based on the results of the sensory evaluation, we concluded that the highest score of 17.92 points is sample V3- the best grape molasses (madžun) produced using traditional technique.

*Key words:* grape molasses, sugar, total phenols, total acids, sensory evaluation

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