



AgroMak 2025

**FIRST INTERNATIONAL
SCIENTIFIC AGRI-BUSINESS
CONFERENCE**



PROCEEDINGS

**Organic and Functional Food with Rural Tourism - Sustainability
and the Future of Macedonia and the Region of Southeastern Europe**

Editor: Dragan Cvetkovic

Sveti Nikole, 04-06 April 2025

**FIRST INTERNATIONAL SCIENTIFIC AGRI-BUSINESS CONFERENCE
"AGRO MAK" 2025.**

**"ORGANIC AND FUNCTIONAL FOOD WITH RURAL TOURISM -
SUSTAINABILITY AND FUTURE OF MACEDONIA AND THE REGION
OF SOUTHEASTERN EUROPE"**

**ПРВА МЕЃУНАРОДНА НАУЧНО АГРО-БИЗНИС КОНФЕРЕНЦИЈА
"АГРО МАК" 2025**

**"ОРГАНСКА И ФУНКЦИОНАЛНА ХРАНА СО РУРАЛЕН ТУРИЗАМ -
ОДРЖЛИВОСТ И ИДНИНА НА МАКЕДОНИЈА И РЕГИОНОТ НА
ЈУГОИСТОЧНА ЕВРОПА"**

PROCEEDINGS

**Editor:
Dragan Cvetkovic**

EDITION: EcoAgroTour - FOR SUSTAINABLE DEVELOPMENT 

**Sveti Nikole, North Macedonia
04. – 06. April, 2025.**

Chamber of Organic Producers– COP, Kumanovo, Republic of North Macedonia,
Комора на Органски Производители– КОП, Куманово, РС Македонија
International Slavic University, Sveti Nikole, Republic of North Macedonia
Меѓународен Славјански Универзитет, Свети Николе, РС Македонија

Organise

**FIRST INTERNATIONAL SCIENTIFIC AGRI-BUSINESS CONFERENCE
ПРВА МЕЃУНАРОДНА НАУЧНО АГРО-БИЗНИС КОНФЕРЕНЦИЈА**

In cooperation with:

Center for Research, Science, Education, and Mediation "CINER",
Belgrade, Serbia

Центар за Истражување, Наука, Едукација и Посредување "ЦИНЕП",
Белград, Србија

Association for Development of Agriculture and Environmental Protection through
Research, Education, and Biodiversity Conservation "ZIVOT," Kumanovo, Republic
of North Macedonia

Здружение за развој на земјоделство и заштита на животната средина преку
истражување, едукација и одржување на биодиверзитет "ЖИВОТ",
Куманово, РС Македонија

Publisher:

Association Life, Kumanovo,

Издавач:

Здружение Живот, Куманово

Editor:

Mr. Dragan Cvetkovic

Уредник:

Драган Цветковиќ

Issue editor:

Prof. PhD. Sasa Stepanov

Technical editor and Graphic design:

Gorjan Cvetkovic

Editorial board / Reviewers

Prof. PhD Jordan Gjorchev, North Macedonia
Prof. PhD Ljupcho Mihajlov, North Macedonia
Prof. PhD Todor Petkovic, Serbia
MsC. Julijana Pandurevic, Canada

Circulation:

50 exemplars

Year of Publishing 2025

Година на издавање 2025

Printed by:

Grafoteks, Kumanovo





AgroMak 2025

Chamber of Organic Producers of Macedonia – COP
Republic of North Macedonia

**FIRST INTERNATIONAL
SCIENTIFIC AGRI-BUSINESS CONFERENCE**

CERTIFICATE

Adut GVN - Kumanovo

**"ORGANIC AND FUNCTIONAL FOOD WITH RURAL TOURISM -
SUSTAINABILITY AND FUTURE OF MACEDONIA AND THE REGION
OF SOUTHEASTERN EUROPE"**

**EDITION: EcoAgroTour - FOR SUSTAINABLE DEVELOPMENT
Sveti Nikole, North Macedonia
04. – 06. April, 2025**

President of the
organizing committee
Mr. Dragan Cvetkovic



President of the
scientific committee
Prof. PhD Ljupcho Mihajlov

HONORARY COMMITTEE

Academic Prof. PhD. Dragan Shkoric, Serbian Academy of Sciences and Arts, Serbia;

Prof. PhD. Emeritus Slobodan Čerović, Founder and President of the Academy of Hospitality, Tourism, and Wellness, Belgrade, Serbia;

Prof. PhD. Emeritus Slobodan Unković, Founder and Chairman of the Council of the Academy of Hospitality, Tourism, and Wellness, Belgrade, Serbia;

Prof. PhD. Ilija Karov, University “Goce Delcev,” Faculty of Agriculture, Shtip, North Macedonia;

Prof. PhD. Vesna Knights, "St. Kliment Ohridski" University, Bitola, Faculty of Technology and Technical Sciences, Veles, North Macedonia;

Prof. PhD. Anka Trajkovska Petkoska, "St. Kliment Ohridski" University, Bitola, Faculty of Technology and Technical Sciences, Veles, North Macedonia;

Mr. Zivko Popovski – Cvetin, artist, painter, and humanist, candidate for the Nobel Peace Prize, North Macedonia;

Mr. Abdulezel Dogani, Veze Sharri, Tetovo, North Macedonia;

Mrs. Gabriela Micevska, IME, Swiss Program for Increasing Market Employability, Skopje, North Macedonia;

Mr. Aleksandar Janjickj, Swisslion – Agropod, Skopje, North Macedonia;

ORGANIZING COMMITTEE

Mr. Dragan Cvetkovic, President, Kumanovo, North Macedonia;

Prof. PhD Jordan Gjorchev, Deputy President, Sveti Nikole, North Macedonia;

Acad. Prof. Dr. Rade Biochanin, member, Travnik, Bosnia and Herzegovina;

Prof. PhD. Milos Tucovic, member, Belgrade, Serbia;

Prof. PhD. Boro Krstic, member, Bijeljina, Republika Srpska, БиН;

Mr Zoran Sunjka, member, Belgrade, Serbia;

Ass. MSc Katarina Temelkovska Ristevska, member, Veles, North Macedonia;

Ass. MSc Eleonora Delinikolova, member, Veles, North Macedonia;

Ass. MSc Tanja Sojanovska, member, Veles, North Macedonia;

Ass. Hava Miftari, member, Tetovo, North Macedonia;

Ass. Durim Alija, member, Tetovo, North Macedonia;

Mrs. Blagica Gavrilovska Cvetkovikj, member, Kumanovo, North Macedonia;

Mr. Kire Andev, member, Skopje, North Macedonia;

Mr. Bobi Krstevski, member, North Macedonia;

Mr. Slobodan Vuksanovic, member, Skopje, North Macedonia;

Mr. Milorad Jeremic, member, Telekom Serbia, Šabac, Serbia;

Mrs. Marela Ceceric, member, Split, Croatia;

Mr. Zeljko Sremcevic, member, Prague, Czech Republic;

SCIENTIFIC COMMITTEE

PRESIDENT OF THE SCIENTIFIC COMMITTEE

1. **Prof. PhD Ljupcho Mihajlov**, "Goce Delchev" University, Faculty of Agriculture, Department of Plant Production, Shtip, North Macedonia;

DEPUTY PRESIDENT OF THE SCIENTIFIC COMMITTEE

1. **Prof. PhD Sasa Stepanov**, Center for Research, Science, Education, and Mediation "CINEP", Belgrade, Serbia;

MEMBERS OF THE SCIENTIFIC COMMITTEE:

NORTH MACEDONIA

1. **Prof. PhD Jordan Gjorchev**, Founder and Chairman of the Board, International Slavic University, Sveti Nikole;
2. **Prof. PhD Lenche Petreska, Rector**, International Slavic University, Sveti Nikole;
3. **Prof. PhD Slavcho Chungurski**, Vice-Rector of AUE FON, Skopje;
4. **Prof. PhD Pavlina Stojanova, Vice Rector for Education**, International Slavic University, Sveti Nikole;
5. **Prof. PhD Emilija Arsov, Dean** of the Faculty of Agriculture, "Goce Delchev" University, Shtip;
6. **Prof. PhD Vezirka Jankulovska, Dean** of the Faculty of Technological and Technical Sciences, Veles, University "St. Kliment Ohridski" – Bitola;
7. **Prof. PhD Dzezair Idrizi, Dean** of the Faculty of Food Technology and Nutrition, University of Tetovo, Tetovo;
8. **Prof. PhD Mile Peshevski**, "Ss. Cyril and Methodius" University, Faculty of Agricultural Sciences and Food, Institute of Agroecconomics, Skopje;
9. **Prof. PhD Jorde Jakimovski**, Institute for Sociological, Political, and Legal Research, Skopje;
10. **Prof. PhD Stojan Debarliev**, "Ss. Cyril and Methodius" University, Faculty of Economics, Department of Management, Skopje;
11. **Prof. PhD Daniela Todevska**, "Goce Delchev" University, Faculty of Agriculture, Department of Plant Production, Shtip;
12. **Prof. PhD Sanja Kostadinovic-Velichkovska**, "Goce Delchev" University, Faculty of Agriculture, Shtip;
13. **Prof. PhD Violeta Ivanova Petropoulos**, "Goce Delchev" University, Faculty of Agriculture, Shtip;
14. **Prof. PhD Sasha Mitrev**, "Goce Delchev" University, Faculty of Agriculture, Shtip;
15. **Prof. PhD Liljana Koleva Gudeva**, "Goce Delchev" University, Faculty of Agriculture, Shtip;
16. **Prof. PhD Fidanka Trajkova**, "Goce Delchev" University Faculty of Agriculture, Shtip;
17. **Prof. PhD Biljana Balabanova**, "Goce Delchev" University, Faculty of Agriculture, Shtip;
18. **Prof. PhD Natalija Markova Ruzdic**, "Goce Delchev" University, Faculty of Agriculture, Shtip;
19. **Prof. PhD Fidanka Ilieva**, "Goce Delchev" University, Faculty of Agriculture, Shtip;
20. **Prof. PhD Tatjana Kalevska**, University "St. Kliment Ohridski", Bitola, Faculty of Technology and Technical Sciences, Veles;
21. **Prof. PhD Daniela Nikolovska Nedelkoska**, University "St. Kliment Ohridski", Bitola, Faculty of Technology and Technical Sciences, Veles;

22. **Prof. PhD Gorica Pavlovska**, University "St. Kliment Ohridski", Bitola, Faculty of Technology and Technical Sciences, Veles;
23. **Prof. PhD Valentina Pavlova**, University "St. Kliment Ohridski", Bitola, Faculty of Technology and Technical Sciences, Veles;
24. **Assoc. Prof. PhD Viktorija Stamatovska**, University "St. Kliment Ohridski", Bitola, Faculty of Technology and Technical Sciences, Veles;
25. **Assoc. Prof. PhD Tatjana Blazhevska**, University "St. Kliment Ohridski", Bitola, Faculty of Technology and Technical Sciences, Veles;
26. **Assistant Prof. PhD Nevena Gruevska**, University "St. Kliment Ohridski", Bitola, Faculty of Technology and Technical Sciences, Veles;
27. **Junior Assistant Sanja Sazdovska**, University "St. Kliment Ohridski", Bitola, Faculty of Technology and Technical Sciences, Veles;
28. **Prof. PhD Sasho Manasov**, International Slavic University, Faculty of Technical Sciences and Informatics, Sveti Nikole;
29. **Prof. PhD Ljupcho Vckov**, International Slavic University, Faculty of Economics and Entrepreneurship Organization, Sveti Nikole;
30. **Prof. PhD Hadzib Salkich**, International Slavic University, Faculty of Technical Sciences and Informatics, Sveti Nikole;
31. **Prof. PhD Hazir Pologjani**, University of Tetovo, Faculty of Agriculture and Biotechnology (FAB), Tetovo;
32. **Assoc. Prof. PhD Gafur Xhabiri**, University of Tetovo, Faculty of Food Technology and Nutrition, Tetovo;
33. **Assoc. Prof. PhD Namik Durmishi**, University of Tetovo, Faculty of Food Technology and Nutrition, Tetovo;
34. **Prof. PhD Radmil Polenakovic**, "Ss. Cyril and Methodius" University, Faculty of Mechanical Engineering, Skopje;
35. **Assoc. Prof. PhD Trajche Velkovski**, "Ss. Cyril and Methodius" University, Faculty of Mechanical Engineering, Skopje;
36. **Prof. PhD Vladimir Vuksanovic**, "Ss. Cyril and Methodius" University, Faculty of physical education sport and health, Skopje;
37. **M.Sc. Stojan Srbinoski**, Research Associate, Balkan Scientific Center of the Russian Academy of Natural Sciences (BNC RAEN), Skopje;

SERBIA

1. **Academic Prof. PhD Mitar Lutovac**, Balkan Scientific Center of the Russian Academy of Natural Sciences, Belgrade;
2. **Academic Prof. PhD Mihail Ostojic**, Developmental Academy of Agriculture of Serbia, Belgrade;
3. **Academic Prof. PhD Nebojša Markovic**, Developmental Academy of Agriculture of Serbia, Belgrade;
4. **Academic Prof. PhD Ratko Kovacevic**, Developmental Academy of Agriculture of Serbia, Belgrade;
5. **Prof. PhD Drago Cvijanovic**, University of Kragujevac, Faculty of Hospitality and Tourism, Vrnjacka Banja;
6. **Prof. PhD Todor Petkovic**, Higher Business School of Professional Studies, Belgrade;
7. **Prof. PhD Dragan Bataveljic**, Faculty of Law, University of Kragujevac, Secondary Health and Sanitary School "VISAN", Belgrade;
8. **Assoc. Prof. PhD Vojin Cvijanovic**, Institute for the Application of Science in Agriculture, Belgrade;
9. **Prof. PhD Radivoje Jevtic**, Scientific Advisor, Institute for Field and Vegetable Crops, Novi Sad;

10. **Prof. PhD Slobodan Vlaic**, Scientific Advisor, Institute for Field and Vegetable Crops, Novi Sad;
11. **Prof. PhD Vladimir Filipovic**, Scientific Advisor, Institute for Horticulture, Smederevska Palanka;
12. **Prof. PhD Emil Rekanovic**, Institute for Pesticides and Environmental Protection, Laboratory for Applied Phytopathology, Zemun, Belgrade;
13. **Prof. PhD Danijela Pavlovic**, Academy of Hospitality, Tourism, and Wellness, Belgrade;
14. **Prof. PhD Aleksandra Vujko**, Singidunum University, Faculty of Management in Tourism and Hospitality, Belgrade;
15. **Prof. PhD Radovan Pejanovic**, Balkan Scientific Association of Agricultural Economists, Belgrade;
16. **Prof. PhD Goran Maksimovic**, Balkan Scientific Association of Agricultural Economists, Belgrade;
17. **PhD. Vladan Ugrenovic**, Principal Research Fellow, Institute for Soil Science, Belgrade;
18. **Zoran Jelenkovic**, President of the Mycological and Fungal Association of Serbia;

MONTENEGRO

1. **Assoc. Prof. PhD Danijela Raichevic**, University of Montenegro, Biotechnical Faculty, Podgorica;

BOSNIA AND HERZEGOVINA

1. **Acad. Prof. PhD Rade Biochanin**, Pan-European University "Apeiron", Banja Luka and International University of Travnik;
2. **Prof. PhD Gorica Cvijanovic, Rector**, University of Bijeljina, Bijeljina, Republika Srpska;
3. **Prof. PhD Miroslav Nedeljkovic**, University of Bijeljina, Republika Srpska;
4. **Prof. PhD Bahrija Umihanic**, Faculty of Economics, Tuzla;
5. **Prof. PhD Merima Mujkic Aljic**, Advisor at the Tourism Community of Tuzla Canton Zhivinice;
6. **Prof. PhD Marko Ivankovic**, Federal Agro-Mediterranean Institute, Mostar;
7. **Assoc. Prof. PhD Marija Bajagic**, University of Bijeljina, Bijeljina, Republika Srpska

SLOVENIA

1. **Prof. PhD Lea-Marija Colaric-Jakshe**, High School for Rural Region Management GRM, Novo Mesto;

CROATIA

1. **Prof. PhD Jasmina Lukinac**, Josip Juraj Strossmayer University of Osijek, Osijek;
2. **Prof. PhD Marko Jukic**, Josip Juraj Strossmayer University of Osijek, Osijek;
3. **Prof. PhD Jasenka Gajdosh Kljusuric**, University of Zagreb, Faculty of Food Technology and Biotechnology, Zagreb;
4. **Assoc. Prof. PhD Tamara Jurina**, University of Zagreb, Faculty of Food Technology and Biotechnology, Zagreb;
5. **Prof. PhD Marko Jurakić**, "Wellness" School "Vimal", Zagreb;

ALBANIA

1. **Prof. PhD Shpresim Domi**, Agricultural University of Tirana (AUT), Faculty of Economics and Agribusiness (FEA), Tirana;

BULGARIA

1. **Nastia Vasileva Ivanova PhD, Full Professor**, College of Sliven, Technical University of Sofia;
2. **Gjore Nakov, PhD, Assoc. Prof.**, College of Sliven, Technical University of Sofia;
3. **Prof. PhD Darina Zaimanova**, University of Trakia, Stara Zagora;

4. **Prof. PhD Rajcho Ilarionov**, Technical University, Gabrovo;
5. **Prof. PhD Hristo Bondjolvov**, Veliko Tarnovo University;
6. **Prof. PhD Vlado Vladimirov**, Veliko Tarnovo University;
7. **Prof. PhD Dragomir Vlchev**, Institute of Agriculture, Karnobat;

ROMANIA

1. **Prof. PhD Agata Popescu**, University of Agricultural Sciences and Veterinary Medicine, Bucharest;
2. **Prof. PhD Dorel Dushmanescu**, University of Petroleum and Gas, Faculty of Economics, Ploiești;
3. **Prof. PhD Jean Vasile Andrei**, University of Petroleum and Gas, Faculty of Economics, Ploiești;
4. **Prof. PhD Ionel Bostan**, Stefan Cel Mare University, Suceava;
5. **PhD Dan Marius Voicilaș**, Romanian Academy of Sciences, Institute of Agricultural Economics, Bucharest;
6. **Prof. PhD Raluca Ion**, Academy of Economic Studies, Bucharest.

POLAND

1. **Prof. PhD Andrzej Kowalski**, Institute of Agricultural and Food Economics, Warsaw

MOLDOVA

1. **Prof. Dr. Alexandru Stratan**, Institute of Economics, Finance, and Statistics, Chishinau;

RUSSIAN FEDERATION

1. **Prof. PhD Natalia Nikolaevna Balashova**, Faculty of Economics, State Agricultural Academy in Volgograd, Volgograd;
2. **Prof. PhD Mirko Mitić**, Researcher, Archimedes Club Institute, Moscow;
3. **Assoc. Prof. PhD Alexandra Sergeevna Skamarokhova**, Researcher, Department of Agricultural Food, Animals, FGBNU (Federal State Budgetary Scientific Institution) ; Krasnodar Scientific Center for Animals and Veterinary Medicine;
4. **Assoc. M.Sc. Nemanja Stepanov**, Faculty of World Economy and International Relations, Moscow;

LITHUANIA

1. **PhD Rita Lankauskiene**, Lithuanian Center for Social Sciences, Institute of Economics and Rural Development;

UKRAINE

1. **Prof. PhD Tetiana Mostenska**, National University of Food Technologies, Kyiv;

GREECE

1. **Prof. PhD Nikolaos Apergis**, University of Piraeus, Piraeus;

TURKEY

1. **Prof. PhD Sait Engindiniz**, Ege University, Faculty of Agriculture, Department of Agricultural Economics, Izmir;

JAPAN

1. **Prof. PhD Masahiko Gema**, Waseda University, Tokyo;

ITALY

1. **Prof. PhD Margaret Losebi**, State University of Tuscia, Viterbo;

SPAIN

1. **Prof. PhD Miguel Moreno Millan**, University of Cordoba, Cordoba;

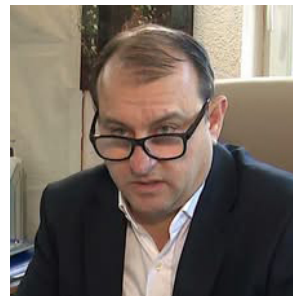
COSTA RICA

1. **Prof. PhD Carlos Saborio Viquez**, University of Costa Rica, San Jose;

CANADA

1. **MsC. Julijana Pandurevic**, Journalist, Publicist, ABB, Toronto;

FOREWORD



Dear participants, guests, and collaborators,

It is with great honor and pleasure that we present to you the collection of papers from the international agribusiness conference "AGRO MAK 2025." This significant event serves as a leading platform for the exchange of knowledge, experiences, and innovations in the fields of agriculture, the food industry, and rural development. Through this conference, we have the opportunity to bring together scientists, experts, the business community, agricultural producers, and institutional representatives to discuss the current challenges and prospects in the agribusiness sector.

Agriculture is one of the most important economic sectors, playing a crucial role in economic development and the quality of life in rural areas. The development of modern technologies, sustainable practices, and efficient business models are fundamental elements for its future. Within the framework of the conference, a wide range of topics will be discussed, including sustainable agriculture, digitalization, innovations in food production, and strategies for enhancing the competitiveness of local producers in the global market.

The papers in this collection represent carefully selected research, analyses, and recommendations that not only reflect the current challenges but also offer concrete solutions and directions for the future. Their goal is to encourage constructive dialogue and collaboration among different stakeholders in the agribusiness sector, creating opportunities for new partnerships, investments, and practically applicable innovations.

In the spirit of unity and knowledge, we express our sincere gratitude to all authors, researchers, and participants who have contributed to the success of this conference through their papers and active participation. We extend special thanks to the organizers, partners, and supporters of "AGRO MAK 2025," whose dedication has made this significant gathering place for agribusiness a reality.

We hope that this collection will serve as a valuable source of information and inspiration for your future research, projects, and business activities. We wish you successful participation in the conference and fruitful discussions, with the hope that this collaboration will continue to deepen in the future.

Sincerely,

Sincerely,

Editor:
Dragan Cvetković
AGRO MAK 2025

Sveti Nikole,
April 4-6, 2025

ПРЕДГОВОР

Почитувани учесници, гости и соработници,

Со особена чест и задоволство ви го претставуваме зборникот на трудови од меѓународната агробизнис конференција „АГРО МАК 2025“. Ова значајно собитие претставува водечка платформа за размена на знаење, искуства и иновации во областа на земјоделството, прехранбената индустрија и руралниот развој. Преку оваа конференција, имаме можност да ги обединиме научниците, стручњаците, бизнис-заедницата, земјоделските производители и претставниците на институциите со цел да дискутираат за актуелните предизвици и перспективи во агробизнис секторот.

Земјоделството е една од најзначајните стопански гранки која има клучно влијание врз економскиот развој и квалитетот на животот во руралните средини. Развојот на модерни технологии, одржливи практики и ефикасни бизнис модели се основни елементи за неговата иднина. Во рамките на конференцијата, ќе се дискутира за широк спектар на теми, вклучувајќи одржливо земјоделство, дигитализација, иновации во производството на храна, како и стратегии за подобрување на конкурентноста на локалните производители на глобалниот пазар.

Трудовите во овој зборник претставуваат внимателно избрани истражувања, анализи и препораки, кои не само што ги одразуваат актуелните предизвици, туку и нудат конкретни решенија и насоки за иднината. Нивната цел е да поттикнат конструктивен дијалог и соработка меѓу различните чинители во агробизнис секторот, создавајќи можности за нови партнерства, инвестиции и практични применливи иновации.

Во духот на заедништво и знаење, изразуваме искрена благодарност до сите автори, истражувачи и учесници кои со своите трудови и активно учество придонесоа за успешноста на оваа конференција. Посебна благодарност упатуваме и до организаторите, партнерите и поддржувачите на „АГРО МАК 2025“, кои со својата посветеност овозможиле реализација на ова значајно собирно место за агробизнисот. Се надеваме дека овој зборник ќе ви биде вреден извор на информации и инспирација за вашите идни истражувања, проекти и деловни активности. Ви посакуваме успешно учество на конференцијата и плодна дискусија, со надеж дека оваа соработка ќе продолжи да се продлабочува и во иднина.

Со почит,

Уредник:
Драган Цветковиќ
АГРО МАК 2025

Свети Николе,
04-06. април 2025

CONTENTS

INVITED SPEAKERS

I – 1.	Ljupčo Mihajlov, Zoran Dimov DRAFT PLAN FOR HARMONIZATION OF THE MACEDONIAN ORGANIC PRODUCTION WITH THE EU REGULATION 2018/848	15
I – 2.	Eleonora Delinikolova, Vezirka Jankuloska POTENTIAL USE OF COLD PRESSED BLACK SEED OIL IN PRODUCING NOVEL FOOD AND FUNCTIONAL FOOD	24
I – 3.	Siniša Kresović, Paun Lučanović, Đorđe Čabilovski THE QUALITY OF RURAL DEVELOPMENT - ANALYSIS, STRATEGIES, AND CHALLENGES	34
I – 4.	Boyko Sokolovski, Orce Spasovski, Jordan Gorčev, Dragan Cvetkovic, THE APPLICATION OF ZEOLITES FOR IMPROVING STANDARDS AND CONDITIONS IN MODERN LIVING	46
I – 5.	Saša Stepanov, Blagica Gavrilovska Cvetković, Radovan Subin IS IT A NEW TIME - TIME FOR RURAL TOURISM?	55
I – 6.	Sara Stanić Jovanović APITURISM AS A DEVELOPMENT OPPORTUNITY FOR RURAL TOURISM AND AGRO-BUSINESS	67
I – 7.	Drago V. Cvijanović, Aleksandra Vujko, Dušica P. Cvijanović, HARNESSING GASTRONOMY: THE ROLE OF SUSTAINABLE TOURISM AND LOCAL PRODUCTS IN RURAL DEVELOPMENT	77
I – 8.	Tamara Jurina, Ana Jurinjak Tušek, Davor Valinger, Maja Benković, Jasenka Gajdoš Kljusurić HOW LOCAL AGRICULTURAL PRODUCTION REDUCES THE CO ₂ FOOTPRINT OF FOOD CONSUMED	85

PLENARY PRESENTATIONS

P – 1.	Jean Vasile Andrei, Ovidiu Condeianu, Bianca-Florentina Nistoroiu, Mihalcea Mihai Viorel, Papadopol Paula Irene A ROMANIAN PERSPECTIVE ON THE NEXUS LABOR, ENERGY AND AGRICULTURAL PERFORMANCE IN SOME EUROPEAN UNION COUNTRIES	95
P – 2.	Todor Petković, Mirko Petković, Saša Stepanov IMPACT OF ECONOMY, ENERGY AND ECOLOGY ON SUSTAINABLE DEVELOPMENT	107
P – 3.	Maxim Ekaterina Aleksandrovna, Lugovoy Mikhail Mikhailovich, Yakovlev Evgeny Alekseevich, Yurin Denis Anatolyevich, Skamarokhova Alexandra Sergeevna STUDY OF CHOLINE CHLORIDE REPLACEMENT WITH BETAINES MOLASSES IN STURGEON GROWING	123
P – 4.	Aco Kuzelov, Nadica Bajraktarova, Dimitar Nakov INFLUENCE OF ORGANIC VERSUS CONVENTIONAL PIG PRODUCTION ON MEAT QUALITY AND FATTY ACID COMPOSITION	127
P – 5.	Daniela Pelivanoska - Dameska, Ljupco Mihajlov, Natalija Markova Ruzdik OPPORTUNITIES FOR CULTIVATION OF WILD FLAX - CAMELINA SATIVA (L.) CRANTZ IN THE PRILEP PRODUCTION REGION	134
P – 6.	Ivana Mladićević, Nemanja Stepanov, Saša Stepanov ANALYSIS OF SUCCESSFUL AND UNSUCCESSFUL TECHNOLOGICAL ENTREPRENEURIAL VENTURES	139

P – 7.	Daniijela Raičević, Tamara Pejanović, Jovana Kojić, Radmila Pajović Šćepanović, Tatjana Popović THE INFLUENCE OF ENOLOGICAL MEANS ON THE CHEMICAL COMPOSITION AND SENSORY CHARACTERISTICS OF VRANAC AND KRATOSIJA WINES	155
P – 8.	Juliana Pandurević, Stan Wachon UNDERSTANDING THE “GREENHOUSE OF THE FUTURE”: HARNESSING NEW TECHNOLOGY TO TACKLE FOOD PRODUCTION INDUSTRY CHALLENGES	164
P – 9.	Milan Novović, Paun Lučanović CIRCULAR ECONOMY: A NEW BUSINESS MODEL OF SUSTAINABILITY IN RURAL TOURISM	170
P – 10.	Silvana Pashovska, Karolina Kočoska, Nataša Zdraveska MOVEMENTS AND TRENDS IN THE PRODUCTION OF ORIENTAL TOBACCO IN MACEDONIA	178
P – 11.	Milan V. Šoškić, Sonja D. Radenković, Ivan Ivanović, REDUCING BUSINESS RISKS WITH THE HELP OF ARTIFICIAL INTELLIGENCE IN AGRIBUSINESS	184
P – 12.	Biljana Matejić, Dragan Cvetkovic, Blagica Gavrilovska Cvetkovic "ORGANIC PRODUCTION AS A SUSTAINABLE APPROACH TO AGRICULTURE: PRODUCING 'FOOD FOR THE SOUL' WITH MINERAL FORTE PLUS"	189
P – 13.	Gorica Cvijanović, Marija Bajagić, Boro Krstić SYNERGY OF SUSTAINABLE AGRICULTURE AND RURAL TOURISM	208
P – 14.	Skamarokhova Alexandra Sergeevna, Yurin Denis Anatolyevich METHOD OF PREPARING A PLANT COMPONENT FOR A PROTEIN FUNCTIONAL FEED ADDITIVE	217
P – 15.	Dragica Stojanovic, Paun Lucanovic, Vladimir Stankovic MODELS FOR EVALUATING THE SUSTAINABILITY OF TOURISM: CREATING A SUSTAINABLE REGIONAL FUTURE	222
P – 16.	Tanja Stojanovska, Tatjana Kalevska, Nevena Gruevska, Viktorija Stamatovska COMPARISON OF ORGANIC AND CONVENTIONALLY PRODUCED FOOD	230
P – 17.	Raluca Andreea Ion, Maria Cristina Sterie, Ramona Ovidia Popa ETHICAL DIMENSION OF SUSTAINABLE DEVELOPMENT OF AGRICULTURE – LEGISLATIVE APPROACHES	240
P – 18.	Milena Magerovska, Kristina Tomska FERMENTED MILK PRODUCTS AS FUNCTIONAL FOOD AND SOURCE OF PROBIOTICS	246
P – 19.	Marija Bešlin Feruh, Biljana Knežević ETHICAL CHALLENGES IN THE MARKETING OF ORGANIC PRODUCTS IN SERBIA	255
P – 20.	Emil Rekanović, Miloš Stepanović, Milica Milošević, Svetlana Milijašević-Marčić, Ivana Potočnik, Jelena Stepanović, Bojan Duđuk FIELD EFFICACY OF BIOFUNGICIDE EKSTRASOL F IN THE CONTROL OF BOTRYOTINIA FUEKELIANA AND MONILINIA SPP.	261
P – 21.	Nimetula Ramadani IMPACT OF POTATO IMPORTS ON THE PRICE OF POTATOES IN NMK	267
P – 22.	Stojan Srbinoski POSSIBILITY OF USING SMART SYSTEMS IN IRRIGATION, AS A RESPONSE TO THE NEGATIVE IMPACT OF CLIMATE CHANGE	273
P – 23.	Neshe Salih, Vezirka Jankuloska	282

	THE NUTRITIONAL AND THERAPEUTIC IMPACT OF BLACKCURRANT (RIBES NIGRUM) SEED OIL	
P – 24.	Jelena Tasić, Ivan Živanović, Jelena Petrović SOCIO-ECONOMIC AND SOCIO-CULTURAL IMPACT OF TOURIST ATTRACTIONS – EVENT TOURISM ON SERBIA'S ECONOMIC PROSPERITY WITH A SPECIAL FOCUS ON THE RURAL AREAS OF ŠUMADIJA	288
P – 25.	Miljan Joksimović, Miomir Jovanović, Aleksandra Despotović THE IMPORTANCE OF RURAL TOURISM AND AGRICULTURE FOR THE DEVELOPMENT OF THE NORTHERN REGION OF MONTENEGRO	302
P – 26.	Milivoje Čosić, Irina Čosić, Miroljub Ivanović PSYCHO-SOCIAL PREDICTORS OF SUPPORT FOR RURAL TOURISM ON A SAMPLE OF THE SERBIAN POPULATION	311
P – 27.	Lilya Gevorgyan DEVELOPMENT OF ORGANIC PRODUCTION IN THE EU: IMPLEMENTATION OF THE PLAN UNTIL 2027.	320
P – 28.	Nikola Jovanović DIGITALIZATION AND INNOVATIONS IN AGRICULTURE: CHALLENGES AND OPPORTUNITIES FOR SUSTAINABLE PRODUCTION	327
P – 29.	Dana Petrovic CULTURAL HERITAGE AND RURAL AREAS AS A BASIS FOR DEVELOPMENT OF TOURIST DESTINATIONS IN SERBIA AND ALBANIA	337

SESSION A

A – 1.	Bratimir Nešić, Jelena Malenović Nikolić, Miloš Cvetković, Miodrag Šmelcerović NEGATIVE IMPACT OF THE NON-SANITARY LANDFILL ON AGRICULTURE - A CASE STUDY OF THE LANDFILL DUBOKO, SERBIA	344
A – 2.	Vesna Knights, Olivera Petrovska, Tatjana Blazevska, Marija Prčkovska DIGITALIZATION AND INNOVATIONS IN AGRICULTURE: CHALLENGES AND OPPORTUNITIES FOR SUSTAINABLE PRODUCTION	345
A – 3.	Berat Durmishi, Vesna Knights, Viktorija Stamatovska, Valentina Pavlova, Gorica Pavlovska, Smajl Rizani, Demokrat Nuha, Arbrie Bytyci STATISTICAL ANALYSIS OF THE PRESENCE OF MINERALS IN HONEY SAMPLES FROM MACEDONIA, KOSOVO AND ALBANIA ENRICHED WITH FIVE PLANT EXTRACTS	347

APPENDIX

Appendix A: Authors - co-authors in alphabetical order (Прилог A: Автори - коавтори по азбучен ред)

No. R. Br.	AUTOR - KOAUTOR	No. R. Br.	AUTOR - KOAUTOR
	A		K
1.	Aleksandrovna Maxim Ekaterina	34.	Kalevska Tatjana
2.	Alekseevich Yakovlev Evgeny	35.	Kljusurić Gajdoš Jasenka
3.	Andrei Vasile Jean	36.	Knežević Biljana
4.	Anatolyevich Denis Yurin	37.	Knights Vesna
	B	38.	Kočoska Karolina
5.	Bajraktarova Nadica	39.	Kojić Jovana
6.	Bajagić Marija	40.	Kresović Siniša
7.	Benković Maja	41.	Krstić Boro
8.	Blazevska Tatjana	42.	Kuzelov Aco
9.	Bytyci Arbrie		L
	V	43.	Lučanović Paun
10.	Valinger Davor		M
11.	Viorel Mihalcea Mihai	44.	Matejić Biljana
12.	Vujko Aleksandra	45.	Magerovska Milena
	G	46.	Marčić Milijašević Svetlana
13.	Gorčev Jordan	47.	Mihajlov Ljupčo
14.	Gruevska Nevena	48.	Milošević Milica
15.	Gevorgyan Lilya	49.	Mikhailovich Lugovoy Mikhail
	D	50.	Mladićević Ivana
16.	Dameska Pelivanoska Daniela		N
17.	Delinikolova Eleonora	51.	Nakov Dimitar
18.	Despotović Aleksandra	52.	Nešić Bratimir
19.	Dimov Zoran	53.	Nistoroiu Bianca Florentina
20.	Duduk Bojan	54.	Nikolić Malenović Jelena
21.	Durmishi Berat	55.	Novović Milan
	E	56.	Nuha Demokrat
22.	Evgeny Yakovlev		P
	Ž	57.	Pandurević Juliana
23.	Živanović Ivan	58.	Pashovska Silvana
	Z	59.	Papadopol Paula Irene
24.	Zdraveska Nataša	60.	Pavlova Valentina
	I	61.	Pavlovska Gorica
25.	Ivanović Ivan	62.	Petković Todor
26.	Ivanović Miroljub	63.	Petković Mirko
27.	Ion Raluca Andreea	64.	Pejanović Tamara
	J	65.	Petrović Jelena
28.	Jankuloska Vezirka	66.	Petrovska Olivera
29.	Jovanović Stanić Sara	67.	Petrović Dana
30.	Joksimović Miljan	68.	Popović Tatjana
31.	Jovanović Miomir	69.	Popa Ovidia Ramona
32.	Jurina Tamara	70.	Potočnik Ivana
33.	Jovanović Nikola	71.	Prčkovska Marija

	R		Ć
72.	Raičević Danijela	96.	Ćosić Milivoje
73.	Radenković Sonja	97.	Ćosić Irina
74.	Ramadani Nimetula		F
75.	Rekanović Emil	98.	Feruh Bešlin Marija
76.	Rizani Smajl		C
77.	Ruzdik Markova Natalija	99.	Cvetković Dragan
	S	100.	Cvetković Gavrilovska Blagica
78.	Salih Neshe	101.	Cvetković Miloš
79.	Sergeevna Skamarokhova Alexandra	102.	Cvijanović Drago
80.	Spasovski Orce	103.	Cvijanović Gorica
81.	Srbinoski Stojan	104.	Cvijanović Dušica
82.	Stepanov Saša	105.	Condeianu Ovidiu
83.	Stepanov Nemanja		Č
84.	Stepanović Miloš	106.	Čabrilovski Đorđe
85.	Stepanović Jelena		Š
86.	Stojanović Dragica	107.	Šmelcerović Miodrag
87.	Stanković Vladimir	108.	Šoškić Milan
88.	Stojanovska Tanja	109.	Šćepanović Pajović Radmila
89.	Stamatovska Viktorija		W
90.	Sterie Cristina Maria	110.	Wachon Stan
91.	Subin Radovan		
92.	Sokolovski Boyko		
	T		
93.	Tasić Jelena		
94.	Tomska Kristina		
95.	Tušek Jurinjak Ana		

**Appendix B: Authors – Participating Countries
(Прилог Б: Автори – земји учеснички)**

No. (P. Бр.)	Country (Земја)	Number of authors (Број на автори)
1.	North Macedonia	11
2.	Serbia	16
3.	Russia	2
4.	Montenegro	2
5.	Bosnia and Herzegovina	2
6.	Romania	2
7.	Canada	1
8.	Croatia	1
9.	Kosovo	1
10.	Armenia	1
11.	Bulgaria	1
	Totally (Целосно)	40

CIP - Каталогизација во публикација Национална и универзитетска библиотека "Св. Климент Охридски", Скопје

631.95(497.7:4-12)(062)

332.1:911.373(497.7:4-12)(062)

PROCEEDINGS / First international scientific agri-business conference "agro mak" 2025, "organic and functional food with rural tourism - sustainability and future of macedonia and the region of southeastern europe", Sveti Nikole, North Macedonia, 04. – 06. April, 2025. ; [editor Dragan Cvetkovic] / Прва меѓународна научно агро-бизнис конференција "агро мак" 2025, "органска и функционална храна со рурален туризам - одржливост и иднина на македонија и регионот на југоисточна европа", Свети Николе, Северна Македонија, 04. – 06. Април, 2025. ; [уредник Драган Цветковиќ]. - Kumanovo : Association for Development of Agriculture and Environmental Protection through Research, Education, and Biodiversity Conservation „ŽIVOT“ ; Куманово : Здружение за развој на земјоделство и заштита на животната средина преку истражување, едукација и одржување на биодиверзитет „ЖИВОТ“, 2025. - 351 стр. : илустр. ; 24 см

Фусноти кон текстот. - Библиографија кон трудовите

ISBN 978-608-67371-0-8

а) Земјоделство -- Одржлив развој -- Македонија -- Југоисточна Европа -- Собири б) Рурален економски развој -- Македонија -- Југоисточна Европа -- Собири

COBISS.MK-ID 65586949

