

5th **ISAF 2025**
INTERNATIONAL SYMPOSIUM
for **AGRICULTURE AND FOOD**
8–10 October 2025

**Book of
Abstracts**



Organized by:
Faculty of Agricultural Sciences and Food – Skopje,
Ss. Cyril and Methodius University in Skopje





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The Faculty of Agricultural Sciences and Food-Skopje is organizing the **5th International Symposium for Agriculture and Food (ISAF-2025)**, which offers a possibility for presenting novel and fundamental advances in the field of sustainable agriculture and food production. ISAF 2025 will bring together and foster the communication among leading researchers, engineers and practitioners with an aim to share their scientific ideas and experiences with all actors in the agricultural sector. Since 2012, the International Symposium for Agriculture and Food is integrating the previous organized events: Faculty-Economy Meeting, Symposium of Viticulture and Wine Production, Symposium for Vegetable and Flower Production and International Conference of the Association of Agricultural Economists of the Republic of North Macedonia.

EVENTS WITHIN ISAF 2025

- 41st Faculty-Economy Meeting
- 14th International Conference of the Association of Agricultural Economists of the Republic of North Macedonia (AAEM)
- Meeting of the Association of Faculties of Agricultural Sciences of South Eastern Europe
- 10th Balkan Animal Sciences Conference BALNIMALCON 2025
- General Assembly of Agro-Well – Horizon Europe Project
- Beyond the leaf: Innovation, Research & Regulation – Philip Morris Panel Discussion
- Biobased Technologies for Climate-Resilient Farming: The DIVAGRI Project Approach
- AgriFood Business x EDIH: Innovate, Connect, Transform

SCIENTIFIC AREAS OF ISAF 2025

The topics of ISAF 2025 are divided into the following scientific sections:

- Animal Biotechnology & BALNIMALCON 2025
- Agricultural Economics
- Agricultural Machinery and Sustainable Agriculture
- Apiculture
- Phytomedicine – Plant Protection
- Food Quality and Safety
- Fruit Growing, Viticulture and Wine Production
- Vegetable, Flower and Decorative Plants Production
- Digital Agriculture & Natural Resources Management
- Field Crop Production
- Genetics, Breeding and Genetic Resources

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PLENARY SPEAKERS



Prof. Dr. Dragi Dimitrievski, Faculty of Agricultural Sciences and Food-Skopje, North Macedonia

Title: From Support to Resurgence – A Vision for the Macedonian Agri-Food Sector

Prof. Dr. Dragi Dimitrievski is a full professor at the Institute of Agricultural Economics at the Faculty of Agricultural Sciences and Food-Skopje, University Ss. Cyril and Methodius in Skopje, and a former Vice-dean for sciences (2003-2005) and former Dean of the Faculty (2009-2017). His research interests and contributions include applied macro-economic analysis in the field of agriculture, with focus on agricultural and rural development policy. Dr. Dragi Dimitrievski is key national expert for agricultural policy and has been actively involved as researcher in different national and international projects related to agricultural and rural development policy analysis. For almost two decades, he is national expert within the Regional Rural Development Standing Working Group in South Eastern Europe (SWG). Dr. Dragi Dimitrievski is regularly being consulted on different important issues regarding the agricultural economics, so as a leader of various national projects, he contributed to development of significant number of strategic and legal documents regarding agricultural policy and rural development. His contribution is especially evident during the food crises due to the Covid-19 and the war in Ukraine, both as support to the policy makers, but also to media to update the public with reliable and thorough information regarding food security issues. All his knowledge and experience in this field he transfers to students through courses in Agricultural Policy that he lectures at all three study cycles, as well as in the course Human Resources Development on the undergraduate studies. Dr. Dragi Dimitrievski has published more than 100 articles in academic journals and international conference proceedings, as well as chapters in different monographs and two textbooks in the field.

PLENARY SPEAKERS

**Prof. Dr. Cecilia Costa, CREA, Italy****Title: The most essential of all agricultural activities: apiculture**

Dr. Cecilia Costa holds a degree in Agricultural Science and a PhD in Agricultural Biotechnologies. She is a Principal Researcher at CREA, the Italian Agricultural Research Council, where she has led research for over two decades on honey bee breeding and the biodiversity of *Apis mellifera*. Her work emphasizes disease resistance, genotype-environment interactions, and colony health and welfare. Dr. Costa is an active member of the COLOSS Association for the prevention of honey bee colony losses and currently coordinates an EU Horizon project. She has authored approximately 70 scientific publications and is a frequent invited lecturer at national and international apicultural and scientific events.

**Prof. Dr. Hossein Azadi, Department of Geography, Ghent University, Belgium****Title: Tipping Points and Resilient Agriculture: How Climate-Smart Agriculture Can Support Small-Scale Farmers**

Prof. Dr. Hossein Azadi obtained his first PhD in agricultural economics and the second in human geography. He is currently a professor at Ghent University in Belgium. He has published about 500 journal articles with +13000 citations and h-index of 60 underscoring him as top 3% global scientist ranked by AD Scientific Index. His main focus is on land governance, the impacts of climate change on small-scale farmers, and agroecology. He is a member of the editorial boards in Land Use Policy, Land Degradation & Development, Agroecology and Sustainable Food Systems, and Climatic Change. He also serves as a research project evaluator for several international councils and organizations.

PANEL DISCUSSIONS

1. The Role of Innovation and Technology in Climate Change Adaptation in Agriculture**Moderator: Prof. Dr. Vjekoslav Tanasković****Prof. Dr. Zdenko Lončarić**, Faculty of Agrobiotechnical Sciences, Josip Juraj Strossmayer University of Osijek, Croatia**Prof. Dr. Hossein Azadi**, Department of Geography, Ghent University, Belgium**Prof. Dr. Ordan Cukaliev**, Faculty of Agricultural Sciences and Food-Skopje, North Macedonia**Prof. Dr. Mirela Kajkut Zeljković**, Institute of Genetic Resources of University of Banja Luka, Bosnia and Herzegovina**Mr. Boban Ilic**, SWG**2. From Farm to Global Market: Rethinking Agri-Food Trade****Moderator: Neda Grujevska****Prof. Dr. Ruzica Lončarić**, Faculty of Agrobiotechnical Sciences, Josip Juraj Strossmayer University of Osijek, Croatia**Prof. Dr. Vlade Zarić**, Faculty of Agriculture, University in Belgrade, Serbia**Prof. Dr. Bozidar Ivanov**, Institute of Agricultural Economics, Sofia, Bulgaria**Dr. Ljupco Veleski**, Vitaminka AD Prilep, North Macedonia**Sinisha Stefanovski**, LK Raspberry DOOEL, North Macedonia

GENERAL PROGRAMME OF ISAF 2025		
Date and Time	Programme	Hall
Day 1: 8 October 2025		
09.00–17.30	Registration of participants	Lobby
09.15–15.00	General Assembly of Agro-Well – Horizon Europe Project	Banket
16.00–17.30	Meeting of the Association of Faculties of Agricultural Sciences of Southeast Europe	Banket
18.00–19.00	Opening Ceremony	Biljana
19.00–19.30	Plenary Session 1	Biljana
19.30–21.30	Welcome Reception	Lobby
Day 2: 9 October 2025		
09.00–10.00	Plenary Session 2a & 2b	Biljana
10.00–10.30	Coffee Break	Lobby
	Parallel Sections 1	Biljana, Car Samoil, Kaneo, Ohrid, Labino, Banket
10.30–12.00	Beyond the leaf: Innovation, Research & Regulation – Philip Morris Panel Discussion	Car Samoil
12.00–12.30	Coffee Break	Lobby
	Parallel Sections 2	Biljana, Car Samoil, Kaneo, Ohrid, Labino, Banket
12.30–14.00	AgriFood Business x EDIH: Innovate, Connect, Transform	Green
	Biobased Technologies for Climate-Resilient Farming: The DMAGRI Project Approach	Banket
14.00–15.00	Lunch	
15.00–16.00	Panel Discussion 1	Biljana
16.00–16.30	Coffee Break	Lobby
16.30–18.00	Parallel Sections 3	Biljana, Car Samoil, Kaneo, Ohrid, Labino, Banket
20.00	Gala Dinner	

Date and Time	Programme	Hall
Day 3: 10 October 2025		
09.00–10.00	Panel Discussion 2	Biljana
10.00–10.30	Coffee Break	Lobby
10.30–12.00	Parallel Sections 4	Biljana, Car Samoil, Kaneo, Ohrid, Labino, Banket
12.00–12.30	Coffee Break	Lobby
12.30–13.45	Parallel Sections 5	Biljana, Car Samoil, Kaneo, Ohrid, Labino, Banket
13.45–14.00	Closing Ceremony	Biljana
14.00–15.00	Lunch	
15.00–18.00	Excursion (optional)	
15.00	Departure of participants	

**BOOK OF ABSTRACTS
BY THEMATIC SECTIONS**

**FIELD CROP
PRODUCTION**

ID: 156 / SES-P-FCP-01: 7

Abstract Submissions

Poster Presentation

Topics: Field Crop Production

Keywords: opium poppy, strategy, production, seed, capsules

STATUS AND PRODUCTION POTENTIAL OF OPIUM POPPY BASED ON A SWOT ANALYSES AND TOWS MATRIX

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Opium poppy (*Papaver somniferum* L.) has a long tradition in North Macedonia and is internationally recognized for its high quality. Despite this, cultivated areas have steadily declined, dropping to 35 hectares in 2022, with average capsule yields of 300 kg/ha and seed yields of 583 kg/ha. A SWOT analysis highlights several strengths: favorable agro-climatic conditions, domestic varieties, experienced farmers, and a pharmaceutical buyer. Additional advantages include government subsidies and the impossibility of synthesizing morphine. However, production is limited by small-scale farming, low yields and prices, outdated mechanization, and a lack of guaranteed seed markets. Legal barriers also restrict capsule exports, while buyer interest remains limited. Opportunities include developing poppy seed oil production, expanding seed exports, establishing small processing units, and engaging in international research. Spring cultivation adds flexibility, supported by local knowledge and tradition. Threats such as potential misuse, public stigma, aging farmers, market volatility, and increasing climate extremes hinder sector stability. The TOWS matrix offers actionable strategies. Strengths and opportunities should be leveraged to promote value-added products and export potential. Weaknesses can be addressed through cooperative models, modernization, and public-private investment. Targeted campaigns can counter social resistance, while infrastructure improvements and youth incentives could secure future production. Although facing notable constraints, opium poppy production in North Macedonia has significant potential. Through integrated policies, investment in infrastructure, and strategic market development, it can evolve into a sustainable and competitive agricultural sector.