

BOOK OF ABSTRACTS

IV INTERNATIONAL SYMPOSIUM FOR AGRICULTURE AND FOOD

ISAF 2022

12-14 October 2022, Ohrid, North Macedonia



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IV INTERNATIONAL SYMPOSIUM FOR AGRICULTURE AND FOOD ISAF 2022

ISBN - 10 9989-845-76X
ISBN - 13 978-9989-76-5
EAN 9789989845765

IV INTERNATIONAL SYMPOSIUM FOR AGRICULTURE AND FOOD
40th Faculty-Economy Meeting
Association of the Faculties for Agricultural Sciences of South Eastern
Europe – Deans meeting
13th International Conference of the Association of Agricultural
Economists of the Republic of North Macedonia (AAEM) and
celebrating 25th anniversary of AAEM
9th Balkan Animal Sciences Conference BALNIMALCON 2022

IV МЕЃУНАРОДЕН СИМПОЗИУМ ЗА ЗЕМЈОДЕЛСТВО И ХРАНА ,
40-та Средба Факултет-Стопанство
Асоцијација на факултети за земјоделски науки и храна на
Југоисточна Европа – средба на декани
13-та Меѓународна конференција на Здружение на
агроекономистите на Република Северна Македонија (ЗАЕМ) и
одбележување на 25 години постоење на ЗАЕМ
9th Balkan Animal Sciences Conference BALNIMALCON 2022

Organized by the
Faculty of Agricultural Sciences and Food - Skopje
Ss. Cyril and Methodius University in Skopje

BOOK OF ABSTRACTS

In this Book of Abstracts you will find more than 250 abstracts classified in 10 thematic sections. The abstracts are published in their original form as provided by the authors. Double-blinded review will apply for the submitted full papers following the Instructions for Authors available at the ISAF 2022 web site. Looking forward to receive your full papers.

On behalf of the Secretariat of the 4th International Symposium for Agriculture and Food - ISAF 2022,

Ivana Janeska Stamenkovska
President of ISAF 2022 Secretariat

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Plenary Speakers

Prof. Dr. Riccardo Valentini

Topic: Climate change: the new challenges of smart agriculture and its digital transformation

Dr. Riccardo Valentini is full professor of Forest Ecology at the University of Tuscia, Italy. His expertise concern the role of land use changes and forestry in the carbon cycle, biodiversity and bioenergy. He is also involved through IPCC and governmental bodies on policies about the global carbon cycle and the role of land use changes and forestry. He is coordinator of several EU projects aiming to understand and quantify the terrestrial carbon budget and greenhouse gases emissions. He is coordinator of the EU-Project CARBOAFRICA. He is Doctor Honoris Causa Faculté Universitaire des Sciences Agronomiques de Gembloux, Belgium. He is a Nobel Prize for Peace as member of the IPCC board. He is Director of the Impacts Division of the Euro-Mediterranean Center on Climate Change and Member of the Biogeoscience Committee of the European Research Council.

2009: Chairman of the Global Terrestrial Observation System Programme, sponsored by FAO/UNESCO/UNEP/ICSU/WMO.

2010: Coordinator of the EU project CLIMAFRICA.

2010: Award of the Advanced Senior Grant of the European Research Council.

2010: Member of Aurelio Peccei Foundation – Club di Roma 2011 – Coordinator of the EU project GEOCARBON.

Prof. Dr. Emil Erjavec

Topic: Don't the changing economy and society demand a profound reform of university agricultural education?

Dr. Emil Erjavec, head of Governing Board of University of Ljubljana Slovenia (UL) is Full professor of Agricultural Policy and Economics at the Biotechnical Faculty, and President of the University Ljubljana Managerial Board. Between 2002-2018 he was lecturer at the University of Natural Resources and Life Sciences (BOKU) in Vienna. He is former dean (2018-2020) and between 2010-2014 and 2016-2018, 2020-2021 vicedean of Biotechnical Faculty University of Ljubljana. For the period 2016-2018, he was the Chairman of Council for agriculture and rural development of the Republic of Slovenia. His research expertise covers various aspects of agricultural economics, and he has published over 70 research papers pertaining to national and European agricultural policy, transition and EU integration studies, agricultural sector modelling and political economy analysis. He has assumed numerous coordinating positions in national and international research efforts. In the years 1998-2004, he participated in the talks preceding EU accession as a member of Slovenia's core negotiations team responsible for agriculture. Since 2003, he has been engaged as counsellor in negotiations related to the European Union's periodic financial perspectives and CAP reforms. He has also been invited to share his knowledge and experience as policy and rural development analyst to the FAO, OECD, European Commission and European Parliament, as well as to the governments of all Western Balkan countries. Between 2008 and 2014, he was a Board member of the European Association of Agricultural Economics (EAAE) and between 2008 and 2013 he was president of the Slovenian Association of Agricultural Economics. For his cooperation efforts, he is getting honourable Doctor degree from the Ss. Cyril and Methodius University in Skopje.

Prof. Dr. Dragi Dimitrievski

Topic: The Macedonian agri-food sector between the needs and opportunities for food security

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.

Prof. Dr. Hossein Azadi

Topic: Nexus of land, food and energy: The question of SDGs

Dr. Hossein Azadi obtained his first PhD in agricultural sciences and his second PhD in geography. He also worked as a postdoc at different universities. During his academic career, he applied a variety of mixed methods on socio-economic impact assessments of agro-environmental development projects with a focus on "development studies". His asset could be explained by his interdisciplinary background conducting mixed-method techniques (qualitative and quantitative) at local and global levels. Using such techniques, he has published widely (around 230 WoS journal articles) with +5800 citations and h-index of 42 (google scholar). He also has been serving several funding agencies (i.e., Dutch Research Council (NWO), Netherlands, Economic and Social Research Council, United Kingdom, Czech Science Foundation, Czech Republic), with evaluating many research project proposals on development studies. He is also an editorial board member in several international journals including Land Use Policy, Land Degradation and Development, Sustainability and Land.

Prof. Dr. Rodolfo M. Nayga

Topic: The Aging of Farmers: Implications for Agriculture and Beginning Farmer Programs
Dr. Rodolfo M. Nayga, Jr. is currently Professor and Head of the Department of Agricultural Economics at Texas A&M University. Dr. Nayga's research interests include the economics of food valuation, consumption, policy, and health. Prior to rejoining Texas A&M University in 2021, Dr. Nayga was Distinguished Professor and Tyson Endowed Chair in Food Policy Economics at the University of Arkansas. He also was a faculty member at Rutgers University and at Massey University, New Zealand. He has been a Fulbright Senior Scholar at Wageningen University, The Netherlands, adjunct professor at Korea University and Norwegian Institute for Bioeconomy Research, NBER research economist, and senior research fellow of the Waseda Institute for Advanced Study in Tokyo. He is a Fellow of the Agricultural and Applied Economics Association (AAEA), the most prestigious honor given by the association, and also currently AAEA's President-Elect.

Prof. Dr. Konstantinos Karantininis

Topic: Producer commodity organizations creating industry collective goods
Dr. Konstantinos (Kostas) Karantininis is Professor of Business Administration at the Department of Work Science, Business Economics and Environmental Psychology (AEM) at the Swedish University of Agricultural Sciences (SLU) at Alnarp, Sweden. He was previously Van Vliet Chair Professor at the University of Saskatchewan, Canada, and Professor at the University of Copenhagen, Denmark; Assistant professor at the Panteion University of Athens, Greece, and researcher at Wageningen University, The Netherlands, and visiting scholar at UC Berkeley, USA. He holds a BA in law and economics from the Aristotle University of Thessaloniki and MSC and PhD from the University of Saskatchewan, Canada. He has published in international peer reviewed journals and supervised numerous PhD and MSc dissertations in Europe and Africa. His research and teaching is on domestic and international sustainable agri-food industries and value chains, cooperatives, agricultural policy, international trade, economic development, industrial organisation, institutional economics and econometrics; in Greece, The European Union, North America, and Sub-Saharan Africa. He has published the book "A new paradigm for Greek agriculture". Palgrave, 2017, he co-edited a book on cooperatives (Springer, 2007) and has published in the Journal of Econometrics, the American Journal of Agricultural Economics (AJAE), The European Review of Agricultural Economics (ERAE), and other professional Journals. He served as associate editor of the AJAE, the ERAE and JAFIO and other Scientific Journals.

Dr. Claudia Zoani

Topic: Research Infrastructures and their role in support to agrifood systems

Researcher at the ENEA Biotechnology and Agroindustry Division, graduated in Chemistry with a PhD in Analytical Chemistry, she concluded the research activities of a second PhD in Agriculture, Food and Environment. Specialist on atomic spectroscopic and mass spectrometry techniques and Metrology, she conducts R&D activities on Reference Materials and Methods; measurement uncertainty; food quality, safety and traceability; sustainability of agrifood systems; chemical risk assessment. Scientific Secretary of the IMEKO TC23 Metrology in Food and Nutrition and member of the ISO/REMCO WG 17 Liaison coordination, Eurachem WG on Reference Materials UNI Committee General Metrology. She is one of the 10 Italian experts on Circular Economy selected by the Italian Ministry for the Foreign Affairs and International Cooperation (MAECI) for the participation to the Comité des Dix-Italie - Sommet des Deux Rives initiative. Awarded with the Premio Leonardo UGIS for "research and its communication" on 2014. She is the Coordinator of the Research Infrastructure METROFOOD-RI – Infrastructure for Promoting Metrology in Food and Nutrition, included in the ESFRI Roadmap for the Domain Health and Food, which recently concluded its Preparatory Phase upon the H2020 project METROFOOD-PP. She is engaged as PI for ENEA in several national and European ongoing projects, such as the HEu AgroServ and DGR4Food, the H2020 FNS-Cloud, iNEXT-Discovery and FoodSafety4EU and the ERANET SUSFOOD CORE ORGANIC "PROVIDE". In the frame of the Italian National Plan for Recovery and Resilience, she coordinates the project METROFOOD-IT, focused on "Strengthening of the Italian RI for Metrology and Open Access Data in support to the Agrifood".

Prof. Dr. Machito Mihara

Topic: Promoting Education and Research Dedicated to Sustainable Development in Agricultural Fields at Tokyo University of Agriculture, Japan

Dr. Machito Mihara is Professor at the Faculty of Regional Environment Science, Tokyo University of Agriculture, President of the Institute of Environmental Rehabilitation and Conservation and Director of the Center for Global Initiatives, Tokyo University of Agriculture, Japan. He has obtained his PhD in Agriculture at the United Graduate School of Agricultural Science, Tokyo University of Agriculture and Technology, Japan. During his academic career he has worked as a visiting professor at the Royal University of Agriculture, Cambodia, Faculty of Agriculture, Khon Kaen University, Thailand and the Faculty of Agricultural Sciences and Food, University Ss. Cyril and Methodius in Skopje. Professor Mihara is a member of different academic societies (Japanese Society of Irrigation, Drainage and Reclamation Engineering (JSIDRE), Society of Eco-Engineering, Japan, Asian Association for Agricultural Engineering (AAAE), European Society of Agricultural Engineers, International Society of Environmental and Rural Development (ISERD), World Association of Soil and Water Conservation (WASWAC)). He has published in international peer reviewed journals and supervised numerous PhD and MSc dissertations. His research focus is in soil management, soil erosion, irrigation and water management, sustainable development in agriculture.

FIELD
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PRODUCTION

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2022

ID: 274**AGRONOMIC AND TECHNICAL EFFICIENCY OF THE PRODUCTIVITY OF OILSEED RAPE FROM COMBINATIONS OF SEVERAL NUTRIENTS****Iļjovski, Igor¹; Dimovska, Daniela²; Zlatko, Arsov¹; Prentovikj, Tatjana¹; Ile, Canev¹**

¹Faculty of Agricultural Sciences and Food-Skopje, Ss. Cyril and Methodius University in Skopje, North Macedonia; ²Faculty of Agriculture, University Goce Delchev, Stip, Macedonia; iljovski2@yahoo.com

Abstract

The increase in yield per unit area in kg and the attained outcome from the usage of certain amounts of nutrients are measured by agronomic efficiency (AE). In terms of the sensible use of nutrients, the capacity and to determine technical efficiency is a contribution to this research. The findings are intended to aid in determining the efficacy of using the most essential nutrients (N, P₂O₅, K₂O, S and B) to determine their impact on productivity capacity. The purpose was to evaluate how varied levels of nitrogen, sulfur, and boron affected on potential of winter oilseed rape. For N was using quantities of 100 and 150 kg ha⁻¹, for S 30 and 70 kg ha⁻¹; and B 1 and 2 kg B ha⁻¹. N (50 kg ha⁻¹) P and K (90 and 180 kg ha⁻¹) was also applied before sowing. The research was performed in vegetation years 2016 - 2018, with two genotypes: variety and hybrid, in 15 variants and 4 replications: 1: control 50 N; 2: 100 N; 3: 150 N; 4: 130 N+S; 5: 170 N+ S; 6: 180 N+S; 7: 220 N+S; 8: 131 N+S+B; 9: 132 N+S+B; 10: 171 N+S+B; 11: 172 N+S+B; 12: 181 N+S+B; 13: 182 N+S+B; 14: 221 N+S+B и 15: 222 N+S+B kg ha⁻¹. The average agronomic efficiency of all variants was 4.66 kg for the variety and 2.99 kg for the hybrid. Technical efficiency showed constant efficiency in three variants, and increase tendency to other variants.

Keywords: oilseed rape, N, S, B, AE, efficiency