

BOOK OF ABSTRACTS



*XIV International Scientific Agriculture Symposium
"Agrosym 2023"
Jahorina, October 05-08, 2023*



BOOK OF ABSTRACTS

**XIV International Scientific Agriculture Symposium
“AGROSYM 2023”**



Jahorina, October 05 - 08, 2023

Impressum

XIV International Scientific Agriculture Symposium „AGROSYM 2023“

Book of Abstracts Published by

University of East Sarajevo, Faculty of Agriculture, Republic of Srpska, Bosnia
University of Belgrade, Faculty of Agriculture, Serbia
Mediterranean Agronomic Institute of Bari (CIHEAM - IAMB) Italy

International Society of Environment and Rural Development, Japan
Balkan Environmental Association (B.EN.A), Greece
Centre for Development Research, University of Natural Resources and Life Sciences
(BOKU), Austria
Perm State Agro-Technological University, Russia
Voronezh State Agricultural University named after Peter The Great, Russia
Tokyo University of Agriculture
Shinshu University, Japan
Faculty of Agriculture, University of Western Macedonia, Greece
Enterprise Europe Network (EEN)
Faculty of Agriculture, University of Akdeniz - Antalya, Turkey
Selçuk University, Turkey
University of Agronomic Sciences and Veterinary Medicine of Bucharest, Romania
Slovak University of Agriculture in Nitra, Slovakia
Ukrainian Institute for Plant Variety Examination, Kyiv, Ukraine
National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine
Valahia University of Targoviste, Romania
National Scientific Center „Institute of Agriculture of NAAS“, Kyiv, Ukraine
Saint Petersburg State Forest Technical University, Russia
University of Valencia, Spain
Faculty of Agriculture, Cairo University, Egypt
Tarbiat Modares University, Iran
Chapingo Autonomous University, Mexico
Department of Agricultural, Food and Environmental Sciences, University of Perugia, Italy
Higher Institute of Agronomy, Chott Mariem-Sousse, Tunisia
Watershed Management Society of Iran
Institute of Animal Science- Kostinbrod, Bulgaria
SEASN- South Eastern Advisory Service Network, Croatia
Faculty of Economics Brcko, University of East Sarajevo, Bosnia and Herzegovina
Biotechnical Faculty, University of Montenegro, Montenegro
Institute of Field and Vegetable Crops, Serbia
Institute of Lowland Forestry and Environment, Serbia
Institute for Science Application in Agriculture, Serbia
Agricultural Institute of Republic of Srpska - Banja Luka, Bosnia and Herzegovina
Maize Research Institute “Zemun Polje”, Serbia
Faculty of Agriculture, University of Novi Sad, Serbia
Institute for Animal Science, Ss. Cyril and Methodius University in Skopje, Macedonia
Academy of Engineering Sciences of Serbia, Serbia
Balkan Scientific Association of Agricultural Economics, Serbia
Institute of Agricultural Economics, Serbia

Editor in Chief

Dusan Kovacevic

Technical editors

Sinisa Berjan
Milan Jugovic
Rosanna Quagliariello

Website:

<http://agrosym.ues.rs.ba>

CIP - Каталогизација у публикацији
Народна и универзитетска библиотека
Републике Српске, Бања Лука

631(048.3)(0.034.4)

INTERNATIONAL Scientific Agricultural Symposium "Agrosym
2023" (14 ; Jahorina)

Book of Abstracts [Електронски извор] / XIV International
Scientific Agriculture Symposium "Agrosym 2023", Jahorina,
October 05 - 08, 2023 ; [editor in chief Dušan Kovačević]. - East
Sarajevo = Istočno Sarajevo : Faculty of Agriculture = Poljoprivredni
fakultet, 2023. - 1 електронски оптички диск (CD-ROM) : текст,
слика ; 12 cm

Системски захтеви: Нису наведени. - Насл. са насл. екрана. -
Регистар.

ISBN 978-99976-987-7-3

COBISS.RS-ID 139166465

ASSESSMENT OF THE SUSTAINABILITY OF NEGLECTED AND UNDERUTILISED CROP SPECIES: SUSTLIVES APPROACH

Hamid EL BILALI^{1*}, Gianluigi CARDONE¹, Susanna ROKKA², Eleonora DE FALCIS³, Abdel Kader NAINO JIKA³, Ali Badara DIAWARA⁴, Bassirou NOUHOU⁵, Halima DIADIE⁶, Mahamane TARRI ALIOU⁶, Zakaria KIEBRE⁷, Jacques KABRE⁷

¹International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM-Bari), Valenzano (Bari), Italy

²Natural Resources Institute Finland (Luke), Jokioinen, Finland

³Alliance Bioversity International – CIAT (Centro Internacional de Agricultura Tropical), Rome, Italy

⁴Afrique Verte Burkina Faso (APROSSA), Ouagadougou, Burkina Faso

⁵Afrique Verte Niger (AcSSA), Niamey, Niger

⁶University Abdou Moumouni, Niamey, Niger

⁷University Joseph Ki-Zerbo, Ouagadougou, Burkina Faso

*Corresponding author: elbilali@iamb.it

Abstract

There are different approaches and frameworks for the assessment of sustainability in agriculture and food systems, but only a few of them focus on crops. This gap is even more evident when it comes to the so-called neglected and underutilised species (NUS). To bridge this gap, the present paper describes an approach for the assessment of the environmental, social and economic sustainability of NUS developed within the project SUSTLIVES (Sustaining and improving local crop patrimony in Burkina Faso and Niger for better lives and ecosystems). The indicators identified through a literature review, based on the Web of Science, have been integrated with other indicators used for sustainability evaluation in the agri-food sector. Based on that, a sustainability assessment approach (list of indicators, evaluation methods and units; scoring system and mode of aggregation of scores; reference crops for the selected NUS) was developed. Then, two workshops were organized in Niamey (January 2023) and Ouagadougou (February 2023) to validate the sustainability assessment approach. The validated sustainability assessment matrix contains 27 indicators divided into different themes covering the three dimensions of sustainability: environmental (environmental integrity, agronomic performance and productivity), social (cultural importance and relevance, nutritional quality and diversity, employment, equity and accessibility) and economic (competitiveness, profitability). A scoring system was proposed for each indicator; from 0 (unsustainable) to 10 (very sustainable) with 5 corresponding to the sustainability benchmark value. Besides sustainability assessment, the developed approach allows selecting the NUS with the highest potential in view of their promotion and the development of their value chains.

Keywords: *orphan crop, NUS, indicator, scoring system, sustainability benchmark.*