

# 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

## TRANSITION FRAMEWORK FOR NEGLECTED AND UNDERUTILIZED CROP SPECIES

Hamid EL BILALI<sup>1\*</sup>, Gianluigi CARDONE<sup>1</sup>, Susanna ROKKA<sup>2</sup>, Eleonora DE FALCIS<sup>3</sup>,  
Abdel Kader NAINO JIKA<sup>3</sup>, Ali Badara DIAWARA<sup>4</sup>, Bassirou NOUHO<sup>5</sup>

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

<sup>2</sup>Natural Resources Institute Finland (Luke), Jokioinen, Finland

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

<sup>4</sup>Afrique Verte Burkina Faso (APROSSA), Ouagadougou, Burkina Faso

<sup>5</sup>Afrique Verte Niger (AcSSA), Niamey, Niger

\*Corresponding author: elbilali@iamb.it

### Abstract

There are thousands of neglected and underutilized species (NUS) worldwide, but only a few make it to the mainstream and spotlight. The reason for that lies probably in the dynamics of the transition from a NUS to a major crop. However, there is no transition framework that specifically addresses NUS. To bridge the gap, this paper suggests a transition framework for NUS. This work was carried out within the project SUSTLIVES (Sustaining and improving local crop patrimony in Burkina Faso and Niger for better lives and ecosystems). It draws upon a search performed on the Web of Science in July 2022. The eligible articles were analysed using the Multi-Level Perspective (MLP) on socio-technical transitions and its three elements viz. niches, socio-technical regime and socio-technical landscape: Niches refer to NUS; the socio-technical regime relates to the incumbent, dominant system of major commercial staple crops, and includes factors hindering NUS integration; and the socio-technical landscape refers to policies and macro-trends affecting both the niche and the regime. The transition dynamics and success depend not only on the characteristics of the niche NUS (cf. strengths and weaknesses), regime and landscape, but also on the type, intensity and timing of interactions among them. The interaction of elements as well as transition speed are moderated by the levers of change that lie in the areas of policy, finance and market, technology and practices, culture, and science and innovation. Further work is needed to refine and test the framework in different contexts and on various NUS.

**Keywords:** *niche crop, NUS, orphan crop, sustainability transitions, Multi-Level Perspective.*