



BOOK OF ABSTRACTS

5<sup>th</sup> INTERNACIONAL SCIENTIFIC CONFERENCE

# VILLAGE AND AGRICULTURE

30. SEPTEMBER AND 1.OCTOBER 2022.  
BIJELJINA- REPUBLIC OF SRPSKA, BIH



***5th International  
Scientific  
Conference  
"Village and Agriculture"***

***30/09-01/10/2022  
Bijeljina, B&H***

## **BOOK OF ABSTRACT**

### **Editors:**

*Boro Krstić, Miroslav Nedeljković, Milivoje Ćosić*

### **Publisher:**

*Bijeljina University, Bijeljina, Republic of Srpska, BiH*

Print run: 100

ISBN: 978-99976-956-6-6

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

63(048.3)

INTERNATIONAL Scientific Conference "Village and Agriculture"  
(5 ; 2022 ; Bijeljina)

Book of Abstract / 5th International Scientific Conference  
"Village and Agriculture", 30. September and 1. October, Bijeljina ;  
[Editors Boro Krstić, Miroslav Nedeljković, Milivoje Ćosić]. -  
Bijeljina : Bijeljina University, 2022 ([S. l. : s. n.]). - 42 стр. ; 24 cm

ISBN 978-99976-956-6-6

COBISS.RS-ID 136766721

**Project number:** 609755-EPP-1-2019-1-BA-EPPKA2-CBHE-JP

**Project name:** Vitalising ICT Relevance in Agricultural Learning

Disclaimer: The European Commission support for the production of this presentation does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Co-funded by the  
Erasmus+ Programme  
of the European Union



*Co-organizing:*

**VIRAL** (Vitalising ICT Relevance in Agricultural Learning-Erasmus+ Programme)  
<http://viralerasmus.org/>

**The City of Bijeljina**  
<https://www.gradbijeljina.org/en/>

**Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina**  
Administration of Bosnia and Herzegovina for Plant Health Protection  
<https://uzzb.gov.ba>

**Chamber of Agricultural Engineers of Republic of Srpska**

**Institute of Agricultural Economics**  
<https://www.iep.bg.ac.rs>

**Institut Institute for Vegetable Crops**  
<https://institut-palanka.rs>

**Institute of Forestry**  
<https://www.forest.org.rs>

**Faculty of Hotel Management and Tourism**  
<https://www.hit-vb.kg.ac.rs>

**Research Network on Resources Economics and Bioeconomy Association,  
RebResNet** <https://rebresnet.eu/>

**Faculty of Business Economics and Entrepreneurship**  
<https://vspep.edu.rs>

**Faculty of Biofarming**  
<https://megatrend.edu.rs/en/faculty-of-biofarming-backa-topola/>

**Faculty of Economics and Engineering Management**  
<https://www.fimek.edu.rs>

**Educons University**  
<https://educons.edu.rs/>

**Faculty of Applied Sciences in Nis**  
<https://fjn.rs>

## **ORGANIZING COMMITTEE:**

*President*

*Boro Krstić, Ph.D*

*Members:*

*Grigorije Trifunović, Ph.D; Zoran Rajić, Ph.D; Sreten Jelić, Ph.D; Miroslav Nedeljković, Ph.D; Milivoje Ćosić, Ph.D; Olga Gavrić, MA; Stefan Gordanić, MA; Marija Popović, MA; Danica Đokić, Bsc.*

## **INTERNATIONAL SCIENTIFIC COMMITTEE:**

*President*

*Miroslav Nedeljković, Ph.D*

*Members:*

*Grigorije Trifunović, Ph.D, Professor emeritus (BiH); Gorica Cvijanović, Ph.D, Rector (BiH); Boro Krstić, Ph.D, Dean (BiH); Drago Cvijanović, Ph.D (Serbia); Zoran Rajić, Ph.D (Serbia); Sreten Jelić, Ph.D (Serbia); Jonel Subić, Ph.D (Serbia); Milivoje Ćosić, Ph.D (Serbia); Marija Cvijanović, Ph.D (BiH); Živka Malić, Ph.D (BiH); Aleksandar Životić, Ph.D (BiH); Mersida Jandrić, Ph.D (BiH); Milorad Đokić, Ph.D (BiH); Jasmina Filipović, Ph.D (BiH); Ivan Urošević, Ph.D (BiH); Radovan Živković, Ph.D (BiH); Miljan Leković, Ph.D (Serbia); Tanja Stanišić, Ph.D (Serbia); Mile Peševski, Ph.D (N. Macedonia); Željko Dolijanović, Ph.D (Serbia); Zorica Vasiljević, Ph.D (Serbia); Dragan Nikolić, Ph.D (Serbia); Beba Mutavdžić, Ph.D (Serbia); Tihomir Zoranović, Ph.D (Serbia); Nebojša Novković, Ph.D (Serbia); Goran Perković, Ph.D (BiH); Radivoj Prodanović, Ph.D (Serbia); Nikola Puvača, Ph.D (Serbia); Gordana Đurić, Ph.D (BiH); Miljan Cvetković, Ph.D (BiH); Jorde Jokimovski, Ph.D (N. Macedonia); Jean Andrei Vasilie, Ph.D (Romania); Dona Pikard, Ph.D (Bulgaria); Erhe Kovach, Ph.D (Hungary); Eva Rocika, Ph.D (Poland); Vahid Parvaneh, Ph.D (Iran); Raluca Andreea Jon, Ph.D (Romania); Jaroslav Cmejrek, Ph.D (Czechia); Mirjana Radović Marković, Ph.D (USA); Ayinla Omolaja Muhammed, Ph.D (Nigeria); Shajahan Kabir, Ph.D (Bangladesh);*

*Imani Silver Karuzy, Ph.D (UK); Vesna Gantner, Ph.D (Croatia); Ranko Gantner, Ph.D (Croatia); Maja Gregić, Ph.D (Croatia); Klemen Potočnik, Ph.D (Slovenia); Nidal Shaban, Ph.D (Bulgaria); Ema Musa Kadhum, Ph.D (Bulgaria); Aleksandar Shpakov, Ph.D (Russia); Hawaa Milham, Ph.D (Iraq); Dragomir Jeremić, Ph.D (Austria); Alexios Panagopoulos, Ph.D (Greece); Paul Wang, Ph.D (China); Gjoko Bunevski, Ph.D (N. Macedonia); Biljana Markovska Korunovska, Ph.D (N. Macedonia); Zeki Kara, Ph.D (Turkey); Aleksandra Despotović, Ph.D (Montenegro); Vladan Pešić, Ph.D (Serbia); Slađana Vujičić, Ph.D (Serbia); Maja Cogoljević, Ph.D (Serbia); Milan Gavrilović, Ph.D (Serbia); Stamen Radulović, Ph.D (Serbia); Marica Šljukić, Ph.D (Serbia); Đorđe Moravčević, Ph.D (Serbia); Grujica Vico, Ph.D (BiH); Milan Knežević, Ph.D (Serbia); Simo Stevanović, Ph.D (Serbia); Jela Ikanović, Ph.D (Serbia); Predrag Vukosavljević, Ph.D (Serbia); Mirko Kulina, Ph.D (BiH); Branka Kalanović Bulatović, Ph.D (Serbia); Ljiljana Keča, Ph.D (Serbia); Milorad Mirilović, Ph.D (Serbia); Siniša Domazet, Ph.D (Serbia); Ljubiša Živanović, Ph.D (Serbia); Marija Lukić, Ph.D (Serbia); Vladan Cogoljević, Ph.D (Serbia); Tamara Vesić, Ph.D (Serbia); Sonja Milutinović, Ph.D (Serbia); Milica Luković, Ph.D (Serbia); Bojan Dimitrijević, Ph.D (Serbia); Dragana Đurić, Ph.D (Serbia); Tatjana Jovanovi, Ph.D (Serbia); Tamara Paunović, Ph.D (Serbia); Mihailo Munćan, Ph.D (Serbia); Saša Todorović, Ph.D (Serbia); Jelena Đoković, Ph.D (Serbia); Tijana Urošević, Ph.D (Serbia); Snežana Stevanović, Ph.D (Serbia); Nenad Đurić, Ph.D (Serbia); Marina Dervišević, Ph.D (Serbia); Cvijetin Živanović, Ph.D (BiH); Marko Jeločnik, Ph.D (Serbia); Aleksandar Maksimović, Ph.D (BiH); Adis Puška, Ph.D (BiH); Gordana Radović, Ph.D (Serbia); Vera Popović, Ph.D (Serbia); Vojin Đukić, Ph.D (Serbia).*

### **HONORARY COMMITTEE**

- *Ljiljana Tomić, Ph.D, Founder, Bijeljina University*
- *Ljubiša Petrović, Bijeljina Mayor, The City of Bijeljina*
- *Zoran Maletić, Ph.D, Ministry of Agriculture, Forestry and Water Management, Republic of Srpska*

## Contents

INFLUENCE OF AQUATIC EXTRACT BANANA AND NETTLE WITH COMMON COMFREY COMBINATION ON WEIGHT OF PLANTS AND WEIGHT OF 1000 GRAINS SOYBEANS

*Zlatica Mamlić, Vojin Đukić, Jegor Miladinović, Gordana Dozet, Marija Bajagić, Sanja Vasiljević, Gorica Cvijanović..... 11*

INFLUENCE OF THE YEAR ON THE PRODUCTIVITY OF ALTERNATIVE CEREAL SPELT ON DEGRADE SOIL

*Jela Ikanović, Vera Popović, Zoran Rajić, Zdravka Petković, Ljubiša Živanović, Ljubiša Kolarić, Dejan Zejak, Nikola Rakašćan ..... 12*

PRODUCTION TECHNOLOGY OF *Panicum miliaceum* - MILLET IS FUNCTIONAL FOOD FOR ANEMICAL PEOPLE - RICH WITH MAGNESIUM AND IRON

*Vera Popović, Marko Burić, Savo Vučković, Vesna Gantner, Jela Ikanović, Milivoje Ćosić, Ljubiša Živanović, Radmila Bojović..... 13*

STRUCTURE OF LIVESTOCK PRODUCTION IN THE SOUTHWESTERN PART OF SERBIA

*Mersida Jandric, Milivoje Ćosic, Alexios Panagopoulos ..... 14*

EMISSIONS OF VETERINARY PHARMACEUTICALS FROM LIVESTOCK BREEDING: EXPERIENCE FROM THE NETHERLANDS

*Nikola Rakonjac ..... 15*

TUBER YIELD AND STARCH CONTENT IN POTATO OF A DIFFERENT RIPENING IN AGRO-ECOLOGICAL CONDITIONS OF NORTHERN MONTENEGRO

*Nenad Đurić, Sanida Arslanović Lukač, Veselinka Zečević, Dobrivoj Poštić, Gorica Cvijanović, Gordana Dozet ..... 16*

THE IMPACT OF THE ANIMAL PRODUCTION SECTOR ON THE ENVIRONMENT

*Vesna Gantner, Vera Popović, Milivoje Ćosić, Ranko Gantner ..... 17*

ANALYSIS OF THE CHARACTERISTICS OF THE RURAL SPACE OF THE REPUBLIC OF SERBIA AND THE REPUBLIC OF CROATIA

*Dragan Dokić, Vera Popović, Vesna Gantner ..... 18*

THE EFFECT OF A COW'S HEALTH ON THE VALUE OF BIOCHEMICAL PARAMETERS IN BLOOD SERUM AND MILK

*Vesna Gantner, Ivana Jožef, Vera Popović, Maja Gregić, Gjoko Bunevski, Marcela Šperanda..... 19*

BASIC CALCULATIONS FOR THE PLANNED LIVESTOCK GRAZING

*Ranko Gantner, Goran Herman, Mario Matičić, Gordana Bukvić, Vesna Gantner.... 20*

STRATEGIC TECHNOLOGY OF PRODUCTION OF CLEAR JUICES

*Ivan Mičić, Aleksandar Shparov..... 21*

STRATEGIC SIGNIFICANCE OF FOREST VEGETATION ON PLANTS AND VEGETATION	
<i>Ivan Mičić, Marijan Stevanovski</i> .....	22
SCALE INSECTS ( <i>HEMIPTERA: COCCIDAE</i> ) ON FRUIT TREES IN SERBIA	
<i>Marina Dervišević, Draga Graora</i> .....	23
STRATEGY FOR PRODUCTION OF LAMBS FOR SALE AND SHEEP'S WOOL IN FARM CONDITIONS	
<i>Ivan Mičić, Botio Zaharinov</i> .....	24
INVESTIGATION OF THE EFFECT OF THE "NEW FORMULA" OF ZEOLITE ON THE QUALITY CHARACTERISTICS OF WINE ROOTSTOCK	
<i>Biljana Korunoska, Vladan Pešić, Maksim Baković</i> .....	25
CHANGES OF CLIMATIC CONDITIONS AND BIOCLIMATE VITICULTURAL INDICES, WITH PROJECTIONS FOR FUTURE	
<i>Zorica Ranković-Vasić, Ana Vuković Vimić, Marija Ćosić, Vladimir Đurđević, Mirjam Vujadinović Mandić</i> .....	26
APPLICATION OF BIOLOGICAL WASTE OF THE FOOD INDUSTRY FOR ANIMAL FEEDING	
<i>Aleksandra Ivetić, Milivoje Ćosić</i> .....	27
RISK MANAGEMENT IN DEBT COLLECTION IN DOMESTIC AGRICULTURAL ENTERPRISES	
<i>Radivoj Prodanović, Miroslav Čavlin, Katarina Đurić</i> .....	28
THE INFLUENCE OF THE CURRENT YEAR'S YIELD ON THE NEXT YEAR'S SOWING STRUCTURE OF THE MOST IMPORTANT FIELD CROPS IN THE REPUBLIC OF SERBIA	
<i>Beba Mutavdžić, Nebojša Novković, Dragana Tekić, Tihomir Novaković, Nataša Vukelić, Veljko Šarac</i> .....	29
SUSTAINABILITY AS THE INITIATOR OF RURAL DEVELOPMENT IN REPUBLIC OF SERBIA	
<i>Suzana Borović, Drago Cvijanović</i> .....	30
RESOURCES IN AGRICULTURE IN THE TERRITORY OF THE DANUBE DISTRICT	
<i>Kristina Antić, Branka Kalanović</i> .....	31
REGIONAL AND ECONOMIC ASPECTS OF TOURISM DEVELOPMENT IN RURAL AREAS IN THE REPUBLIC OF SERBIA	
<i>Tatjana Bošković, Dragana Đurić, Bojana Kovačević Berleković, Ana Jovičić<sup>1</sup></i> .....	32
ECONOMIC CHARACTERISTICS AND SPECIFICITIES OF BIOMASS AS A RENEWABLE ENERGY SOURCES	
<i>Simo Stevanović, Snežana Stevanović, Radovan Živković</i> .....	33



ECONOMIC ASPECTS OF AGRICULTURE AND ITS IMPORTANCE FOR THE ECONOMY AND PEOPLE'S HEALTH - THE CASE OF SERBIA <i>Milan Beslač, Milomir Gačević, Vladan Cogoljević</i> .....	34
AGRICULTURAL INSURANCE – EXPERIENCES OF THE REPUBLIC OF SERBIA AND THE REPUBLIC OF SERBIA <i>Gordana Radović, Radovan Pejanović, Jonel Subić</i> .....	35
THE ROLE OF THE QUALITY OF AGRICULTURAL PRODUCTS ON THE DEVELOPMENT OF AGRICULTURAL FARMS <i>Slađana Vujičić, Marija Lukić, Radović Marković Mirjana, Imani Silver Kyaruzi, Kabir Shajahan</i> .....	36
WOMEN'S ENTREPRENEURSHIP IN AGRICULTURE <i>Slađana Vujičić, Mirjana Radović Marković, Marija Lukić, Muhammed Ayinla Omolaja</i> .....	37
RESILIENCE – A NEW TERMINOLOGY FOR SUSTAINABLE GROWTH <i>Cvijetin Živanović</i> .....	38
CONCEPTUAL BLOCKCHAIN MODEL FOR HONEY SUPPLY CHAIN SYSTEM <i>Marija V. Paunović, Zahra Alizadeh</i> .....	39
INTRAPRENEURSHIP AS A PROXY FOR THE IMPROVEMENT OF EXISTING AND INTRODUCTION OF NEW TECHNOLOGIES <i>Zoran Poduška, Todor Stojanov, Snežana Stajić, Sabahudin Hadrović</i> .....	40
USE OF ICT BY AGRICULTURAL PRODUCERS IN BOSNIA AND HERZEGOVINA <i>Alisa Hadžiabulić, Silva Grobelnik-Mlakar, Miljan Cvetković</i> .....	41
SOCIO-DEMOGRAPHIC CHARACTERISTICS OF YOUNG PEOPLE IN SERBIA AND SURROUNDING COUNTRIES <i>Sreten Jelić, Tatjana Jovanović, Marija Popović</i> .....	42

# THE IMPACT OF THE ANIMAL PRODUCTION SECTOR ON THE ENVIRONMENT

Vesna Gantner<sup>1</sup>, Vera Popović<sup>2</sup>, Milivoje Ćosić<sup>3</sup>, Ranko Gantner<sup>1</sup>

<sup>1</sup> Faculty of Agrobiotechnical Sciences J.J. Strossmayer University of Osijek, Osijek, Croatia

<sup>2</sup> Institute of Field and Vegetable Crops, Novi Sad, Serbia

<sup>3</sup> Institute of Forestry, Belgrade, Serbia

E-mail: vgantner@fazos.hr

## Abstract

Changes in climate will significantly affect agricultural production and especially plant and animal production worldwide. Climate change threatens global food supply as certain crops become more expensive due to reduced production and supply. The global human population is projected to increase to over 9 billion people by the year 2050. Forecasted population growth will result in an increase in demands for food by about 50–60% approximated to the current demands. This study aimed to show the models and the possibilities of improving productivity while reducing emissions. Precision animal farming by using various sensors and big data management contributes improvement of the system in terms of animal health, productivity, and welfare. It will make it possible for farmers to optimize the management of the farm and consequently realize an efficient and sustainable production system from the economic and environmental point of view.

*Key words: Animal production sector, environmental impact, GHG emission, climate change, resources*

BOOK OF ABSTRACTS

