# BOOK OF ABSTURA CIES







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

### **Tehnical 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

# ANTIFEEDANT ACTIVITY OF THE PLANT PRODUCTS DERIVED FROM THE NEEM AND LINALOOL ON THE SPONGY MOTH LARVAE

Nemanja SIMOVIĆ<sup>1</sup>, Jovan DOBROSAVLJEVIĆ<sup>1</sup>\*, Ivan MILENKOVIĆ<sup>1,3</sup>, Goran BRANKOVIĆ<sup>2</sup>, Zorica BRANKOVIĆ<sup>2</sup>, Jovana ĆIRKOVIĆ<sup>2</sup>, Aleksandar RADOJKOVIĆ<sup>2</sup>, Sanja PERAĆ<sup>2</sup>, Jelena JOVANOVIĆ<sup>2</sup>, Dušan JOVANOVIĆ<sup>1</sup>, Slobodan MILANOVIĆ<sup>1,3</sup>

<sup>1</sup>University of Belgrade, Faculty of Forestry, Belgrade, Serbia Belgrade

<sup>2</sup>University of Belgrade - Institute for Multidisciplinary Research, Belgrade, Serbia

<sup>3</sup>Mendel University in Brno, Faculty of Forestry and Wood Technology, Brno, Czech Republic

\*Corresponding author: Jovan.dobrosavljevic@sfb.bg.ac.rs

### **Abstract**

With the significant loss of biodiversity in the 20<sup>th</sup> and 21<sup>st</sup> century, pollution of air, soil, and water, alternatives to chemical pesticides are needed to preserve nature. One of the alternatives is the usage of plant components as pest insect control. They are an appropriate alternative to chemical pesticides as they are cost-effective, easy, and safe to use, do not affect the environment or beneficial insects negatively, and are still an effective measure against pest insects. The biggest challenge with plant components is that they are biologically unstable. That is why further insight into the effectiveness of different extracts and oils against different pest insects is needed. We tested the antifeedant activity of plant products derived from neem (*Azadirachta indica* A.Juss.), and linalool on the Spongy moth (*Lymantria dispar* L, 1758) larvae. To test the efficiency of these compounds, we conducted choice tests in laboratory conditions. Two disks (treatment and control) cut from red oak (*Quercus rubra* L.) leaves were presented to the second instar spongy moth larvae in Petri dishes for the testing. Twenty-five Petri dishes were used for each of the tested compounds at four concentrations (200 in total). The tested compounds showed the most significant effect at higher concentrations.

**Keywords:** Biological control, Azadirachta indica, Lymantria dispar.

**Acknowledgments:** This research was supported by the Science Fund of the Republic of Serbia, #6693, PestFreeTree.