BOOK OF ABSTRACTS

XIV International Scientific Agriculture Symposium

"Agrosym 2023"

Jahorina, October 05-08, 2023

AgroSym 2023

Agrosym 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

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

P 394 **HATCHABILITY PERCENTAGE OF PHEASANTS HATCHED FROM BLUE EGGSHELL COLOUR EGGS,** Dragoljub MARIĆ, Slobodan STOJANOVIĆ, Dragan ŽIKIĆ, Zdenko KANAČKI, Zoran RUŽIĆ

P 395 **THE INFLUENCE OF GASTROINTESTINAL NEMATODES ON MODERN SHEEP FARMING AND NOVEL CONTROL STRATEGIES,** Filip ŠTRBAC, Slobodan KRNJAJIĆ, Slađan STANKOVIĆ, Vedran TOMIĆ, Radomir RATAJAC, Dragica STOJANOVIĆ

P 396 **THE INFLUENCE OF ALTITUDE ON THE QUALITY OF HONEY IN CENTRAL SERBIA,** Goran JEVTIĆ, Snežana BABIĆ, Snežana ANĐELKOVIĆ, Đorđe LAZAREVIĆ, Mirjana PETROVIĆ, Kazimir MATOVIĆ, Nebojša NEDIĆ

P 397 **DISTRIBUTION OF LOCOMOTOR LESIONS IN DAIRY COWS IN SERBIA,** Milan NINKOVIĆ, Nemanja ZDRAVKOVIĆ, Nemanja JEZDIMIROVIĆ, Sveta ARSIĆ, Jovan BOJKOVSKI

P 398 **EFFECT OF FEEDING WITH FRESH CARROTS ON REPRODUCTIVE PERFORMANCE OF SIMMENTAL COWS,** Milan NINKOVIĆ, Nemanja ZDRAVKOVIĆ, Nemanja JEZDIMIROVIĆ, Aleksandra TASIĆ, Sveta ARSIĆ, Marija PAVLOVIĆ

P 399 **THE INFLUENCE OF THE TYPE OF POLLEN TRAP ON BEE POLLEN YIELD,** Nebojša NEDIĆ, Denis VOJT

P 400 **WHAT DOES THE ANTIBIOGRAM TELLS,** Nemanja ZDRAVKOVIĆ, Oliver RADANOVIĆ, Božidar SAVIĆ, Milan NINKOVIĆ, Bojan MILOVANOVIĆ, Đorđe MARJANOVIĆ, Ružica CVETKOVIĆ

P 401 **IMPACT OF GLOBAL WARMING ON EQUINE HEALTH AS A THREAT TO CONSERVATION OF AUTOCHTHONOUS EQUINES IN SERBIA,** Ružica TRAILOVIĆ, Dragiša TRAILOVIĆ, Lazar MARKOVIĆ, Ivan PAVLOVIĆ, Stefan ĐOKOVIĆ

P 402 **INFLUENCE OF ULTRASONIC TREATMENT ON THE FERMENTATION OF GOAT'S MILK SUPPLEMENTED WITH MILK PROTEIN ISOLATES,** Tanja VUCIC, Snezana JOVANOVIC, Marija MILETIC GLISIC

P 403 **EVALUATION OF BIRTH WEIGHT BY BANDED MEASURE IN SELECTED BREEDING HERD OF SLOVAK SPOTTED BREED,** Jozef BUJKO, Juraj CANDRÁK, Peter STRAPÁK, Cyril HRNČÁR, Mariusz BOGUCKI, Dariusz KOKOSZYŃSKI

P 404 **RECENT ADVANCES IN THE UTILIZATION OF BLACK SOLDIER FLY LARVAE MEAL IN BROILER DIETS,** Esra KARADUMAN, Ali AYGÜN, Doğan NARİNÇ

P 405 **THE EFFECTS OF STORING HATCHING EGGS OF WHITE LEGHORN AND DENIZLI CROSSBRED FOWL UNDER VARIED RELATIVE HUMIDITY CONDITIONS AND DURATIONS ON HATCHING PERFORMANCE AND CHICK QUALITY TRAITS,** Esra KARADUMAN, Ali AYGÜN, Doğan NARİNÇ

P 406 **DEVELOPMENT OF PROBIOTIC SUPPLEMENTS FOR PET ANIMALS,** Fadime KIRAN, Hazal KIBAR, Sedat SEVIN

P 407 **HIPPOTHERAPY IN THE CONTEXT OF MODERN METHODS OF REHABILITATION,** Igor V. GONCHARENKO

P 408 **BENEFITS OF SPRINKLER TECHNOLOGY IN PLANETARY BOUNDARIES: IMPROVEMENT OF WATER USAGE & BROILER PRODUCTION SUSTAINABILITY,** Tom TABLER, Yi LIANG, Sami DRIDI

P 409 **EFFECT OF HEAT STRESS ON HYPOTHALAMIC GENE EXPRESSION PROFILE IN DIVERGENTLY SELECTED BROILERS FOR LOW- OR HIGH-WATER EFFICIENCY,** Loujain ALOUI, Sara ORLOWSKI, Raouia BEN RHOUMA, Walter BOTTJE, Sami DRIDI

P 410 **IN-VITRO EFFECTS OF ALGERIAN *THYMUS MUNBYANUS*ESSENTIAL OIL ON *STAPHYLOCOCCUS SPECIES* CAUSINGMASTITIS IN DAIRY COWS,** Mohamed Walid HAMLAOUI, Ahmed HADEF, Fawzi Rostane MEKLATI

P 411 **PREVALENCE AND RISK FACTORS OF *EIMERIA SPP.* AND *GIARDIA SPP.* IN RABBITS OF LOCAL ALGERIAN POPULATION,** Mina HENNEB, Rafik BELABBAS, Safia ZENIA

P 412 **PHYSICOCHEMICAL AND MICROBIOLOGICAL QUALITY ASSESSMENT OF GOAT MILK IN ALGERIA,** Mina HENNEB, Rafik BELABBAS, Safia ZENIA

P 413 **PRENATAL FACTORS AFFECTING THE PROBABILITY OF SURVIVAL BETWEEN BIRTH AND WEANING IN RABBITS,** Rafik BELABBAS, Rym EZZEROUG, Maria De La Luz GARCIA, Mina HENNEB, Maria José ARGENTE

THE INFLUENCE OF GASTROINTESTINAL NEMATODES ON MODERN SHEEP FARMING AND NOVEL CONTROL STRATEGIES

Filip ŠTRBAC[1]*, Slobodan KRNJAJIĆ[1], Slađan STANKOVIĆ[2], Vedran TOMIĆ[2], Radomir RATAJAC[3], Dragica STOJANOVIĆ[4]

[1]Institute for Multidisciplinary Research, University of Belgrade, Serbia
[2]Institute for Science Application in Agriculture, Belgrade, Serbia
[3]Scientific Veterinary Institute Novi Sad, Serbia
[4]Department of Veterinary Medicine, Faculty of Agriculture, University of Novi Sad, Serbia
*Corresponding author: filip.strbac@imsi.bg.ac.rs

Abstract

Gastrointestinal nematodes represent parasites of great importance in veterinary medicine, especially in grazing animals such as small ruminants. In most cases, these parasites cause subclinical diseases with losses in body weight, reduced feed intake and decreased production. However, high worm burdens may lead to severe clinical signs such as anorexia, anemia, diarrhea, protein loss, edema, decreased immunity and fertility, which can lead to fatal outcomes. Therefore, gastrointestinal nematodes hinder sheep farming in different ways leading to high economic losses that are estimated at several hundred million euros in Europe, although it is difficult to quantify it precisely. An additional problem is the development of anthelmintic resistance in nematodes that occur as a result of irrational use of commercial drugs, whereby the main risk factors are overfrequent treatments, underdosing, the use of only one drug without combination or rotation etc. This leads to a decrease in their effectiveness, and consequently to even higher economic losses (an additional 35-40 million euros). Moreover, these costs will tend to increase in the future due to widespread of resistance and the occurrence of multiresistant strains. For these reasons, the focus of nowadays research is finding alternative solutions including genetic selection of naturally resistant animals, pasture management, dietary manipulation, biological control (use of nematophagous fungi, bacteria or earthworms and dung beetles) and the use of plant-based formulations such as extracts and essential oils. All of the above strategies have shown promise, although it appears that none of them could be used independently. Therefore, future strategies for the control of gastrointestinal nematodes should be based on an integrated approach. This implies the combination of mentioned alternatives with rational use of anthelmintics based on refugia strategies (target treatments and target selective treatments).

Keywords: *gastrointestinal nematodes, sheep, anthelmintic resistance, economic losses, alternative strategies.*