

**UNIVERSITY OF SZEGED FACULTY OF AGRICULTURE**

in cooperation with

**UNIVERSITY OF LIFE SCIENCES "KING MIHAI I" FROM TIMISOARA**

**HUNGARIAN ACADEMY OF SCIENCES REGIONAL COMMITTEE IN SZEGED**

**COMMITTEE ON AGRICULTURAL BIOTECHNOLOGY OF HUNGARIAN  
ACADEMY OF SCIENCES**

**FOUNDATION FOR AGRICULTURAL MODERNIZATION AND RURAL  
DEVELOPMENT**

and

**SCIENTIFIC COMMITTEE, AGRICULTURAL AND BIOSYSTEMS  
ENGINEERING OF HUNGARIAN ACADEMY OF SCIENCES**



110 ÉVE AZ OKTATÁS ÉS A TUDOMÁNY SZOLGÁLATÁBAN, 100 ÉVE SZEGED ÉS A RÉGIÓ FEJLŐDÉSÉÉRT.

**SZTE** SZEGEDI TUDOMÁNYEGYETEM  
UNIVERSITY OF SZEGED



# **20<sup>th</sup> Wellmann International Scientific Conference Online Conference**

## **PROGRAM**

**03<sup>th</sup> April 2023**

**Hódmezővásárhely**

## **PROGRAM:**

|               |  |
|---------------|--|
| 09:30 – 09:45 | Opening ceremony and welcome speeches                                |
| 09:45 – 10:45 | Plenary session  |
| 11:00 – 14:00 | Parallel sessions  |
| 09:30 – 14:00 | Poster session<br>(Can be viewed continuously during the conference) |

## **Parallel Sessions:**

|   |              |
|---|--------------|
| Agricultural economics and Innovation in Agriculture          | BBB platform |
| Agricultural production                                       | BBB platform |
| Environmental protection and Wildlife management              | BBB platform |
| Food processing and safety, Rural and Sustainable development | BBB platform |

## **PROGRAM OF THE PLENARY SESSION**

### **09:30 Opening ceremony and welcome speeches**

*Dr. Edit Mikó, Dean of the Faculty of Agriculture, University of Szeged, Hungary*  
*Prof. Dr. Szilárd Czóbel, Secretary of the Conference Organising Committee*

### **09:45 Plenary session**

09:45 – 10:05

#### **GREEN LENDING IN THE AGRICULTURE**

*Zsuzsanna Széles*

*Alexandre Lamfalussy Faculty of Economicse, University of Sopron, Sopron,  
HUNGARY,*

10:05 – 10:25

#### **ANIMAL WELFARE ASSESSMENT PROTOCOLS IN RUMINANTS**

*Özkan ELMAZ*

*Department of Animal Science, Faculty of Veterinary Medicine,  
Burdur Mehmet Akif Ersoy University, Burdur, TURKIYE,*

10:25 – 10:45

#### **EDIBLE INSECTS AS ALTERNATIVE PROTEIN SOURCES**

*Diána Bánáti*

*Department of Food Engineering, Faculty of Engineering, University of Szeged,  
Szeged, HUNGARY*

## **AGRICULTURAL ECONOMICS AND INNOVATION IN AGRICULTURE SESSION**

**Chair:** *Dr. Balázs Duray, Hungary*

**Co-chair:** *Dr. Annamária Korom, Hungary*

### *Regular presentations*

11:00-11:15

#### **ECONOMIC IMPACT OF SOYBEEN-FREE FEEDING ON LAYING HENS**

*József Horvath, Krisztofer Herman*

11:15 -11:30

#### **MAIN CHANGES IN FOOD TRADE IN EUROPE AND THE WORLD UNDER COVID-19 RESTRICTION**

*Gábor Gyarmati*

11:30 -11:45

#### **THE IMPORTANCE OF COUPLED SUPPORT IN HUNGARIAN LIVESTOCK PRODUCTION**

*Miklós Vásáry*

11:45 -12:00

#### **THE MAIN OBSTACLES TO GENERATIONAL RENEWAL IN AGRICULTURE**

*Aron József Borda, Jeremiás Máté Balogh*

12:00 -12:15

#### **AGRO-PHOTOVOLTAICS: A SUSTAINABLE SYNERGY BETWEEN FOOD PRODUC-TION AND RENEWABLE ENERGY GENERATION**

*Balázs Duray*

12:15 -12:30

#### **COLOUR-MASKING OF DOMESTIC PAPRIKA (CAPSICUM ANNUUM L.) POWDER**

*Dániel Szabó, Ágnes Urbin, László Sipos*

12:30 -12:45

#### **INNOVATION IN HUNGARIAN AQUACULTURE**

*Béla Urbányi, Zoltán Bokor, Julianna Kobolák, Emese Bozánné Békefi,  
Szvetlana Lengyel, Zsófia-Tarnai-Király, Katalin Rákóczi, Rita Fekete*

12:45 -13:00

**INVESTIGATING THE EFFECTS OF PEPTAIBOLS THROUGH  
STRUCTURE- ACTIVITY RELATIONSHIPS**

Dóra Balázs, Tamás Marik, Ákos Rozsnyói, András Szekeres, Csaba Vágvolgyi, Chetna Tyagi,  
László Kredics

*Short presentations*

13:00 -13:05

**VALUE CHAIN ANALYSIS IN AQUACULTURE  
DEVELOPMENT**

Emese Békefi Bozánne, Béla Urbányi, Zsuzsanna Brlás-Molnár

## **AGRICULTURAL PRODUCTION SESSION**

**Chair:** *Dr. Tamás Monostori, Hungary*

**Co-chair:** *Dr. Péter Jakab, Hungary*

### *Regular presentations*

11:00-11:15

#### **LET'S SAVE OUR NATIVE CHICKEN BREEDS WITH THE CAPON AS A CURIOUS PRODUCT!**

*Ákos Benk, Katica Erzsébet Benk, Szilárd Pinnyey*

11:15 -11:30

#### **CHALLENGES OF ESTABLISHING THE CIRCULAR OYSTER MUSHROOM PRODUCTION MODEL IN KENYA**

*Miklós Gyalai-Korpos, Monica Mburu, Adrienn dr. Somosné Nagy*

11:30 -11:45

#### **COMPARISON OF THE FLEECE PRODUCTION OF TWO EXTENSIVE FRENCH SHEEP GENOTYPES**

*Gabriella Fúró, Krisztina Varga, István Csízi*

11:45 -12:00

#### **DEVELOPMENT OF GROWING MEDIA FOR ORGANIC SEEDLING PRODUCTION FROM DOMESTIC RESOURCES**

*Nataly Ftaimi, Emese Gyöngyösi, Dóra Drexler, Zoltán Pék, Ferenc Tóth*

12:00 -12:15

#### **EFFECT OF DIFFERENT NITROGEN FERTILIZER AND PLANT DENSITY ON YIELD OF FOUR HYBRIDS OF SWEET CORN (ZEA MAYS L. SACCHARATES)**

*Sidahmed, H.M., Arpad Illes, A. Vad, Nagy Janos*

12:15 -12:30

#### **IMPACT OF DIFFERENT NUTRIENT SUPPLY LEVELS ON YIELD PARAMETERS OF ORGANIC KAPIA PEPPER IN PLASTIC TUNNEL**

*Orsolya Papp, Katalin Allacherné Szépkuthy, Miklós Gulyás, Attila Ombódi, Nuri Nurlaila Setiawan, Ilona Kaponyás, Ferenc Tóth*

12:30 -12:45

**WASTE SLUDGE COMPOSITION AND POTENTIAL USE AS A FERTILIZER – A REVIEW**

*Brian Ssemugenze, Akasairi Ocwa, Tóth Brigitta, Janos Nagy*

12:45 -13:00

**IDENTIFICATION OF LR34 AND YR17 RUST RESISTANCE GENES OF WHEAT USING MOLECULAR MARKERS**

*Tungalag Munkhbat, Melinda Tar, Laszlo Purnhauser*

*Short presentations*

13:00 -13:05

**IMPROVING OF MAIZE YIELD STABILITY WITH FOLIAR FERTILIZERS**

*Péter Jakab, Györgyi Csontos, Mihály Sárvári, Melinda Tar, István Kristó*

13:05 -13:10

**MICROPROPAGATION OF PHILODENDRON ERUBESCENS WITH THE USE OF DIFFERENT BIOSTIMULATORS**

*Máté Ördögh*

13:10 -13:15

**PRECISION NUTRIENT APPLICATION TECHNOLOGIES IN CROP PRODUCTION**

*Akasairi Ocwa, Safwan Mohammed, Brian Ssemugenze, Endre Harsányi*

13:15 -13:20

**RESPONSES OF SELECTED MAIZE GENOTYPES (ZEA MAYS L.) ON NITROGEN FERTILIZATION: GRAIN YIELD AND QUALITY ATTRIBUTES**

*Muhoja Sylvester Nyandi, Dr. Petér Pepó*

13:20 -13:25

**TECHNICAL AND CULTIVATION TECHNOLOGY RESEARCH AND DEVELOPMENT OF PRECISION CROP CULTIVATION ON THE SUBJECT OF CORN PLANTING**

*István Sojnóczki*

## **ENVIRONMENTAL PROTECTION AND WILDLIFE MANAGEMENT SESSION**

**Chair:** *Dr. Tímea Süli-Zakar, Hungary*

**Co-chair:** *László Beier, Hungary*

### *Regular presentations*

11:00-11:15

#### **A REVIEW OF THE HUMAN WILDLIFE CONFLICTS AROUND THE NAIROBI NATIONAL PARK, KENYA.**

*Jocelyn Weyala Burudi, Krisztian Katona, Eszter Tormane Kovacs*

11:15 -11:30

#### **COMPARATIVE ANALYSIS OF THE MACROINVERTEBRATE FAUNA OF ECOLOGICALLY STABLE AND TRADITIONAL GARDEN PONDS**

*Bence Tamás, Orsolya Ivett Hoffmann, Ákos Malatinszky*

11:30 -11:45

#### **CONTRIBUTION OF NATURE CONSERVATION RELATED CITIZEN SCIENCE PROJECTS TO LEARNING, ATTITUDE AND BEHAVIORAL CHANGE OF PARTICIPANTS**

*Johanna Maribel Soria Aguirre, Eszter Tormáné Kovács*

11:45 -12:00

#### **MICROALGAL BIOPESTICIDES AS A SUSTAINABLE SOLUTION FOR PLANT PROTECTION**

*Andrea Cheradil, Bákonyi Nora, Andras Csoto*

12:00 -12:15

#### **SUCCESSFUL COLONIZATION OF FOREST STEPPE SPECIES IN DIFFERENT AREAS ABANDONED FROM TRADITIONAL CULTIVATION**

*Orsolya Szirmai, Dénes Saláta, Szilárd Czóbel*



12:15 -12:30

**EFFECT OF WILD BOAR ROOTING ON SOIL  
CHARACTERISTICS IN VÖRÖSKÖVÁR, BUDAPEST,  
HUNGARY**

*Natalia Pitta-Osses, Ádám Fehér, Krisztián Katona, Csaba Centeri*

12:30 -12:45

**MORPHOLOGICAL AND ANATOMICAL  
CHARACTERISTICS OF NUTRIA  
(MYOCASTOR COYPUS) IN A SLOVAKIAN POPULATION**

*Balázs Bócsi, Zsolt Biró, Krisztián Katona*

12:45 -13:00

**SPATIAL PATTERN OF SMALL MAMMAL POPULATION  
DENSITY IN THE AREA OF LISZT FERENC AIRPORT,  
BUDAPEST**

*Mihály Márton, László Szabó, Miklós Heltai*

13:25 -13:40

**POLLEN CONCENTRATION DATA SET FOR  
XANTHIUM SPP. IN 2019 IN THE NORTHERN GREAT  
PLAIN REGION**

*Viktor József Vojnich, Dóra Kajtor-Apatini, Donát Magyar*

*Short presentations*

13:00 -13:05

**APPLICATION OF 3D PRINTED TURBULENCE PROMOTER  
IN DAIRY WASTEWATER ULTRAFILTRATION**

*Nikolett Sz. Gulyás, Szabolcs Kertész, Cecilia Hodúr*

13:05 -13:10

**FINANCIAL PERFORMANCE OF ROMANIAN WASTE  
COLLECTION BUSINESSES**

*Cosmina-Simona Toader, Ioan Brad, Cosmin Sălășan,  
Andrea Ana Feher, Elena Claudia Sîrbulescu, Carmen Simona Dumitrescu*

13:10 -13:15

**PRELIMINARY METHODOLOGICAL EXPERIMENTS ON  
THE HYDRO-PHILIC/HYDROPHOBIC CHARACTER OF  
SOILS USING KRÜSS DSA 100 DROP SHAPE ANALYSER**

*Aliz Füleki-Veress, Gyöngyi Barna, András Makó*

13:15 -13:20

**THE EFFECT OF ADDING DIFFERENT OILS ON LIQUID  
WHOLE EGG SENSORIAL PROPERTIES**

*Majd Elayan, Csaba Németh, Munkhnasan Enkhbold, Adrienn Tóth*

13:20 -13:25

**BEHAVIOR PATTERN OF ROE DEER AT FEEDING PLACES  
REVEALED BY CAMERA-TRAPPING IN THE HUNGARIAN  
GREAT PLAIN**

*Gergely Tóth, Natania Ferreira De Souza, Krisztián Katona*

## **FOOD PROCESSING AND SAFETY, RURAL AND SUSTAINABLE DEVELOPMENT SESSION**

**Chair:** *Dr. Anita Csiba, Hungary*

**Co-chair:** *Dr. Adrienn Szarvas, Hungary*

### *Regular presentations*

11:00-11:15

#### **TEXTURAL INVESTIGATION OF A PROTEIN RICH JELLY SWEET**

*Adrienn Varga-Tóth, Majd Elayan, Munkhnasan Enkbold, Anikó Boros, Csaba Németh*

11:15 -11:30

#### **THE EFFECT OF DIFFERENT TEMPERATURES ON THE LIQUID EXTRACTION FROM PLEUROTUS OSTREATUS (JACQ.:FR.) KUMM. MUSHROOM**

*Gréta Törőss, Dr. Ferenc Peles, Dr. József Prokisch*

11:30 -11:45

#### **EXAMINATION OF CONSUMER ATTITUDES REGARDING THE CONSUMPTION OF NOVEL FOODS, ESPECIALLY DUCKWEEDS**

*Dóra Szepesi-Bencsik*

11:45 -12:00

#### **HETEROLOGOUS PROTEIN EXPRESSION OF MUCOR LUSITANICUS COX1 AND HSBA GENES IN PENICILLIUM CHRYSOGENUM AND PICHIA PASTORIS**

*Molnár Anna, Kovács Vanda, Masa Csilla, Kiss Karina, Kocsis Dominik Sándor,  
Szegedi Botond, Galgóczy László, Siliman A. S. T. Khaliefeh, Rafael Bence, Vágvölgyi Csaba,  
Nagy Gábor, Papp Tamás, Szebenyi Csilla*

12:00 -12:15

#### **OCCURENCE OF DEOXYNIVALENOL IN WINTER WHEAT GRAINS HARVESTED IN HUNGARY OVER THE YEARS 2012-2017**

*Tamás Mészlénny, Beáta Tóth, Szieberth Dénes, Ákos Mesterházy*

12:15 -12:30

**SUSTAINABLE RURAL DEVELOPMENT THROUGH  
THE UTILIZATION OF INVASIVE ALIEN SHRUBS TO  
PRODUCE LOCAL BIOENERGY**

Csaba Vaszkó

*Short presentations*

12:30 -12:35

**EVALUATION OF WATER CALTROP (TRAPA NATANS L.)  
HARVESTED FROM LAKE TISZA, HUNGARY**

Judit Tarek-Tilistyák, Gyula Kücsön

12:35 -12:40

**INVESTIGATION OF TANNASE ACTIVITIES IN  
MUCOROMYCOTA FUNGI**

Tamás Kovács, Anita Kovács, Csaba Vágvolgyi, Judit Krisch, Miklós Takó

12:40 -12:45

**APPLICATION OF DATA ANALYSIS METHODS IN  
DETERMINING THE MIGRATION KINETIC OF POLIMER  
ADDITIVES**

Norbert Magyar, Csaba Kirchkeszner, Noémi Petrovics, Ilona Kovácsné Székely,  
Zsuzsanna Eke

12:45 -12:50

**BIOCONTROL OF AFLATOXIN CONTAMINATION AND THE  
EFFECT OF ASPERGILLUS FLAVUS ON MAIZE QUALITY**

Lourraine Sena Doh, Tünde Pusztahelyi

12:50 -12:55

**THE IMPACT OF LACTIC ACID AND ASCORBIC ACID  
MIXTURE ON QUALITY PARAMETERS OF WILD BOAR  
MEAT**

Munkhnasan Enkhbold, Attila Lőrincz, Majd Elayan, László Friedrich, Attila Solymosi,  
Balázs Wieszt, Jáni Kornél, Adrienn Tóth

12:55 -13:00

**INVESTIGATION OF THE EFFECT OF AERATION AND  
TEMPERATURE ON MICROALGAE CULTIVATION IN  
DIFFERENT NUTRIENT SOLUTIONS**

Pretty Londhe, Péter Tamás Nagy, Tamás Magyar

13:00 -13:05

**CRISIS LEADERSHIP: IS IT IMPORTANT?**

*Andrea Feher, Ioan Brad, Cosmina Toader, Claudia Sirbulescu, Ciprian Rujescu,  
Miroslav Raicov*

## **POSTER SESSION**

### **AGRICULTURAL ECONOMICS AND INNOVATION IN AGRICULTURE**

#### **CAN YOU TELL ME WHERE YOU SHOP? I'LL TELL YOU WHO YOU ARE! CONSUMER ANALYSIS OF FARMERS' MARKETS USING A SYSTEMATIC LITERATURE REVIEW**

*Gréta Maró, Zalán Márk Maró, Áron Török, Zsófia Jámbo*

#### **DOES CONSUMER ETHNOCENTRISM EXIST IN THE HUNGARIAN ALCOHOLIC BEVERAGE MARKET?**

*Zalán Márk Maró, Péter Balogh, Péter Czine, Áron Török*

#### **ECONOMIC ANALYSIS OF PRECISION CULTIVATION OF AUTUMN RAPESEED**

*Árpád Ferencz, Levente Komarek, Anita Csiba, Zuzsanna Deák*

#### **FARMERS' MARKETS IN THE 21ST CENTURY – A BIBLIOMETRIC OUTLOOK**

*Áron Török, Sándor Kovács, Gréta Maró, Zalán Márk Maró*

#### **FARMERS' MARKETS ORGANIZED BY UNIVERSITIES**

*Gréta Maró, Péter Czine, Zalán Márk Maró, Áron Török*

#### **PRODUCERS IN SHORT FOOD SUPPLY CHAINS AND THE ROLE OF LOCAL FARMERS' MARKETS IN SALES**

*Szabolcs Troján, Károly Kacz, Anita Miklósné Varga*

#### **REVIEW OF DIAGNOSTIC SIGNS OF INVOLUTION PROBLEMS IN DAIRY COWS BY THE HELP OF CATUS DATABASE**

*Bettina Póth-Szebenyi, Henrietta Nagyné Kiszlinger, József Stefler, Sára Ágnes Nagy,  
Orsolya Varga-Balogh, László Kern, György Gábor*

## **AGRICULTURAL PRODUCTION**

### **GROWTH AND FEED UTILIZATION CHARACTERISTICS OF TWO COMMON CARP GENOTYPES REARED ON ARTHROPODAL FEED SOURCES**

*Szabolcs Márk Turuczki, Péter Mikics, Tamás Monostori*

### **IN VITRO EFFICACY OF DISINFECTANTS AND FUNGICIDES USED IN THE CULTIVATION OF BUTTON MUSHROOM (AGARICUS BISPORUS)**

*Henrietta Allaga, András Mész, Rita Büchner, András Varga, Nóra Bakos-Barczi, Judit Bajzát, László Kredics, Csaba Csutorás, Csaba Vágvölgyi*

### **SOIL PESTS PROBLEM IN SWEETPOTATO (IPOMOEA BATATAS (L.) LAM.) PRODUCTION IN SOUTH HUNGARY**

*Adrienn Szarvas, Sundusin Afiqah Izzati Binti, Zhou Dai*

### **THE EFFECT OF ARBUSCULAR MYCORRHIZA ON THE YIELD OF DIFFERENT WINTER WHEAT VARIETIES AT FOUR NUTRIENT LEVELS.**

*Lajos Szentpéteri, Katalin Irmes, István Kristó, Attila Rácz, Marianna Vályi-Nagy, Melinda Tar*

### **THE IMPLICATIONS OF EUROPEAN GREEN DEAL ON AGRICULTURAL SYSTEMS**

*Carmen Simona Dumitrescu, Cosmin Sălășan, Cosmina Simona Toader, Simona Cristina Constantinescu, Oana Maria Sicoe-Murg, Iasmina Iosim, Sorin Mihai Stanciu*

## **ENVIRONMENTAL PROTECTION AND WILDLIFE MANAGEMENT**

### **BOTANICAL OBSERVATIONS IN THE NATURE CONSERVATION AREA OF HAJÓS**

*Károly Ecseri, Tímea Kiss*

### **COMPARATIVE STUDY OF THE FLOWERING PHENOLOGY OF WILD GROWING GEOPHYTES IN TWO DIFFERENT MESOCLIMATIC AREAS IN THE CARPATHIAN BASIN**

*Krisztina Verbényiné Neumann, Szilárd Czóbel*

### **EFFECTS OF HIGH NUTRIENT AND HEAVY METAL CONTAINING SOILS ON SOME CHEMICAL AND BIOCHEMICAL FEATURES OF SUDAN GRASS**

*György Vincze, Csilla Tóth, Zsuzsanna Uri, Katalin Irinyiné-Oláh, Szabolcs Vigh,  
László Simon*

### **HISTORICAL ECOLOGICAL RESEARCH OF THE KURGANS OF HAJDÚNÁNÁS–ZAGOLYA-DŰLŐ**

*Ákos Pető, Ádám Braun, Alex Bakodi, Dénes Saláta, Attila Rigó, Ákos Malatinszky*

### **INVESTIGATING THE EFFECT OF CLIMATE CHANGE ON THE LAND USE AND LAND COVER OF THE JORDAN RIVER BASIN**

*Ansam Bzour, István Valánszki*

### **THE EFFECT OF HEAVY METAL CONTAINING WASTEWATER SEDIMENT ON THE MICROANATOMICAL CHARACTERISTICS OF THE LEAVES AND STEM OF SALIX VIMINALIS**

*Csilla Tóth, György Vincze, Katalin Irinyiné Oláh, Zsuzsanna Uri, Szabolcs Vigh, László  
Simon*

### **THE PORTRAYAL OF WILD BOAR ON SOCIAL MEDIA IN MALAYSIA**

*Siti Mastura Hasan, Sándor Csányi*



## **FOOD PROCESSING AND SAFETY, RURAL AND SUSTAINABLE DEVELOPMENT**

### **COMPARATIVE ANALYSIS OF MEAT PRODUCTS MADE FROM DIFFERENT MEAT RAW MATERIALS**

*Tamás Kulcsár, Bálint Erdei, Eszter Szőke-Trenyik, József Mihalkó, Balázs P. Szabó*

### **FERMENTATION OF EGG WHITE DRINK BY BIFIDOBACTERIUM WITH DIFFERENT CARBOHYDRATE SOURCES**

*Reem Mourad, Zsombor Tóth, Barbara Csehi, Erika Bujna*

### **IDENTIFICATION OF BIOACTIVE COMPOUNDS USING RP-HPLC ANALYSIS OF SOME HAWTHORN SPECIES EXTRACTS (CRATAEGUS PINNATIFIDA BGE., C. MONOGYNA JACQ., C. CRUS-GALLI) AND ANTIOXIDANT ACTIVITY EVALUATION.**

*Areej Alsobh, Gyula Vatai, Szilvia Bánvölgyi*

### **MONITORING THE SPOILAGE PROCESS OF DAIRY PRODUCTS BY DIELECTRIC MEASUREMENT**

*Réka Dobozi, Zoltán Jákói, Anita Vidács, József Csanádi, Sándor Beszédes*

### **THE EFFECT OF ENZYMATIC PRETREATMENT OF CHICKPEA ON PROPERTIES OF PREPARED PROTEIN NANOPARTICLES**

*Milica Perović, Maja Milošević, Mirjana Antov*

### **THE INFLUENCE OF CONTENT OF OREGANO ESSENTIAL OIL ON MICROSTRUCTURAL, ANTIOXIDANT, BARRIER AND ANTIMICROBIAL PROPERTIES OF CITRUS PECTIN-BASED EDIBLE FILMS**

*Marija Kostić, Branimir Bajac, Jelena Bajac, Ljiljana Janjušević, Mirjana Antov*

### **XYLANASE AND CELLULASE ASSISTED ACID EXTRACTION OF PECTIC FIBER FROM BUTTERNUT SQUASH**

*Maja Milošević, Milica Perović, Mirjana Antov*

### **COMBINED EFFECT OF NATURAL LEMON ESSENTIAL OIL AND LEMON JUICE PRESERVATIVES ON PEAR AND RASPBERRY MILKSHAKES**

*Waminee Niramit, Aruzhan Otegenova, Aulia Putri Srie Wardani, Balázs P. Szabó, Judit Krisch*

### **PROBIOTIC FERMENTATION OF MIXED FRUIT AND VEGETABLE JUICES**

*Aruzhan Otegenova, Aulia Putri Srie Wardani, Waminee Niramit, Balázs P. Szabó, Judit Krisch*

### **THE COMBINED EFFECT OF LEMON ESSENTIAL OIL AND LEMON JUICE AS NATURAL PRESERVATIVES IN APPLE AND GRAPE JUICES**

*Aulia Putri Srie Wardani, Aruzhan Otegenova, Waminee Niramit, Balázs P. Szabó, Judit Krisch*

**A RURAL DEVELOPMENT PERSPECTIVE ON THE CHALLENGES AND PROSPECTS OF THE HUNGARIAN LIVESTOCK FARMING SECTOR**

*Jenő Zsolt Farkas, Irén Rita Kőszegi, Edit Hoyk, Ádám Szalai*

**THE RELATIONSHIPS OF THE EUROPEAN UNION PROJECTS IMPLEMENTED IN DEBRECEN IN THE PERIOD 2014-2020 AND THE BIOLOGICAL ACTIVITY VALUE**

*György Orosz, Botond Kőhalmi, Julianna Skutai*

**DOES SOIL MATTER? HELPING BIODIVERSITY MANAGEMENT IN A SOLAR PARK**

*Viktor Grónás, Márk Pálfi, Csaba Centeri*