



Sveučilište u Zagrebu
Agronomski fakultet



University of Zagreb
Faculty of Agriculture



FACULTY OF AGRICULTURE ZAGREB
AGRICULTURAL ENGINEERING DEPARTMENT
FACULTY OF AGRICULTURE OSIJEK
FACULTY OF AGRICULTURE AND LIFE SCIENCES
UNIVERSITY OF MARIBOR
INSTITUTE OF AGRICULTURAL ENGINEERING, BOKU, VIENNA
AGRICULTURAL INSTITUTE OF SLOVENIA
NATIONAL INSTITUTE FOR AGRICULTURAL MACHINERY - INMA BUCHAREST
CROATIAN AGRICULTURAL ENGINEERING SOCIETY



47th International Symposium “Actual Tasks on Agricultural Engineering”

PROVISIONAL PROGRAMME

5th – 7th March 2019, Grand hotel "Adriatic" Opatija, Croatia

MONDAY - 4th March 2019.

18.00-19.00 Registration of participants

TUESDAY - 5th March 2019.

8.00-9.00 Registration of participants

9.00-9.30 OFFICIAL OPENING

Prof. Zoran Grgić, Dean of Faculty of Agriculture University of Zagreb

Prof. Dubravko Filipović, Head of Department of Agricultural Engineering

Prof. Silvio Košutić, President of Scientific Committee of ATAE

Prof. Istvan Szabo, CASEE representative, Faculty of Mechanical Engineering SZIE, Hungary

Prof. Andreas Gronauer, BOKU, Vienna, Head of Institute of Agricultural Engineering

9.30-11.00 PAPER PRESENTATIONS

Milan MARTINOV, Andreas GRONAUER, Silvio KOŠUTIĆ
Highlights of 28th club of Bologna meeting

Bojan SRDJEVIC, Paulo MELO, Zorica SRDJEVIC, Luisa JORGE, Tihomir ZORANOVIC
Water allocation for agricultural users based on multi criteria analysis and use of decision-making tools

Zorica SRĐEVIĆ, Bojan SRĐEVIĆ
Multiagent conflicts and resolutions in water resources management

Vanja JURIŠIĆ, Domagoj ŠKORIĆ, Ana MATIN, Tajana KRIČKA, Mateja GRUBOR
Pyrolysis of BSG with the aim of gaining energy and added-value products

Jochen Georg WIECHA, Tim BÖGEL, Thomas HERLITZIUS, Heinz BERNHARDT
Electrification of mounted implements - concepts of traction assistance

Kęstutis ROMANECKAS, Dovilė AVIŽIENYTĖ, Aida ADAMAVIČIENĖ, Vaclovas BOGUŽAS, Aušra SINKEVIČIENĖ, Egidijus ŠARAUSKIS, Algirdas JASINSKAS, Rasa KIMBIRAUSKIENĖ, Jovita BALANDAITĖ, Aleksandra MINAJEVA, Marek MARKS, Jozef TYBURSKI, Ashirali SMANOV
Impact of reduced tillage on spring oil seed rape, winter wheat, maize and spring barley production in Lithuania

Algirdas JASINSKAS
Energy forestry and agro-residues in the Lithuania's domestic energy supply

11.00-11.30 COFFEE BREAK

11.30-13.30 PAPER PRESENTATIONS

Ana MATIN, Tajana KRIČKA, Tugomir MAJDAK, Mateja GRUBOR, Vanja JURIŠIĆ
Influence of harvest time and drying methods on the qualitative properties of rosemary

Tajana KRIČKA, Mateja GRUBOR, Ana MATIN
Impact of the maize hybrids FAO group on the water release rate by drying and grain nutritional value

Anamarija BANAJ, Đuro BANAJ, Vjekoslav TADIĆ, Davor PETROVIĆ, Vinko DUVNJAK
Application of MaterMacc Twin Row-2 sowing machine in corn sowing on experimental field „Tenja“

Peter LIEBHARDT, P. WEINDL, J. MAXA, G. BELLOF, Heinz BERNHARDT, S. WÖRZ, S. THURNER
Ensiling alfalfa leaves as a high protein feed for monogastric animals

Anamarija PETER, Mateja GRUBOR, Dubravka DUJMOVIĆ PURGAR, Ana BUDIMIR, Neven VOČA
Use of invasive plant species tree of heaven (*Ailanthus altissima* Mill.) biomass in energy production

Rajko BERNIK, Filip VUČAJNK
The impact of different secondary tillage on quality and yield of carrot crop (*Daucus carota* L.)

Aleksandra MINAJEVA, Algirdas JASINSKAS, Egidijus ŠARAUSKIS, Kęstutis ROMANECKAS, Andres ANNUK
Investigation and comparison of indicators of fodder bean waste and wood pellets

Maximilian TREIBER, Franz HILLERBRAND, Josef BAUERDICK, Heinz BERNHARDT
On the current state of agricultural robotics in crop farming chances and risks

Martin HÖHENDINGER, Sophie KERN, Jörn STUMPENHAUSEN, Heinz BERNHARDT
Estimation of effects on the workload at dairy farms caused by automatization

Davor PETROVIĆ, Đuro BANAJ, Vjekoslav TADIĆ, Dario KNEŽEVIĆ, Anamarija BANAJ
Impact of orchard sparyer type and technical spraying factors on spray deposit

13.30-15.30 LUNCH BREAK

15.30-17.30 PAPER PRESENTATIONS

Mihaela NITU, Augustina PRUTEANU, Mihai MATAACHE, Iulia GAGEANU, Dan CUJBESCU
Influence of working pressure on spraying angle for different types of agriculture nozzles

George IPATE, Gabriel CONSTANTIN, Gheorghe VOICU, Gabriel MUSUROI, Elena Madalina STEFAN, Mariana Gabriela MUNTEANU, Laurentiu DUMITRESCU

Small agribot for monitoring environmental variables in greenhouse

Georgiana MOICEANU, Gheorghe VOICU, Gigel PARASCHIV, Valentin VLADUT, Petru CARDEI, Mirela DINCA

Relationships analysis between the grinding parameters of *Miscanthus giganteus* stalks using a hammer mill

Augustina PRUTEANU, D.M. BORDEAN, Valentin VLĂDUȚ

Accumulation of heavy metals in vegetables grown on contaminated soils

Nicoleta UNGUREANU, Valentin VLĂDUȚ, Irina-Aura ISTRATE, Bianca – Ștefania ZĂBAVĂ, Carmen TOCIU, Mariana FERDEȘ, Mirela DINCĂ

Advanced electrochemical treatment of the wastewater from cattle farm

Bianca - Ștefania ZĂBAVĂ, George IPATE, Gheorghe VOICU, Mirela DINCĂ, Nicoleta UNGUREANU, Mariana FERDEȘ, Valentin VLĂDUȚ

Smart system to monitor wastewater treatment based on Raspberry Pi computer

Mariana FERDEȘ, Mirela DINCĂ, Nicoleta UNGUREANU, Bianca ZĂBAVĂ, Gigel PARASCHIV, Laura TOMA, Carmen TOCIU

Effect of ozone on *Salmonella enteritidis* and *Escherichia coli* in contaminated water

Gabriel GHEORGHE, Cătălin PERSU, Iulia GAGEANU, Dan CUJBESCU

Structural and modal analysis of the subsoiler equipment to prepare the germinative bed

Cătălina STAN (TUDORA), Laurențiu VLĂDUȚOIU, Valentin Nicolae VLĂDUȚ, Adriana MUSCALU

Harvest and quality of hyssop (*Hyssopus officinalis* L.)

Paul GĂGEANU, Leonid FADEEV, Iuliana GĂGEANU, Alexandru ZAICA

New solutions for the interphase transport - decreasing the degree of injuring seed in bucket elevators

17.30 WELCOME RECEPTION

WEDNESDAY - 6th March 2019.

9.00-10.45 PAPER PRESENTATIONS

Milan MARTINOV, Djordje DJATKOV, Miodrag VISKOVIĆ

Potentials of crop residues as energy sources and feedstock

Kaarel SOOTS, Andres OLT, Jüri OLT

Manufacturing technology and mechanical properties of biodegradable tableware made from cereal bran

Oana Corina GHERGAN, Dumitru ȚUCU, Anuța IUSCO, Daniela DRĂGHICESCU, Roxana Mihaela BABANATIS MERCE

Small greenhouse robotized solutions: state of the art and future perspectives

Anuța IUSCO, Dumitru ȚUCU, Oana-Corina GHERGAN, Septimiu LICA

Energy production from the walk of the animals in paddock by the use of piezoelectric elements

Jaroslav ČEPL, Pavel KASAL, Jiří ZÁMEČNÍK, Jan LUKÁŠ, Andrea SVOBODOVÁ

Drip irrigation in potato cultivation

Aleksandra DIMITRIJEVIĆ, Carmela SICA, Rajko MIODRAGOVIĆ, Zoran MILEUSNIĆ

Energy efficiency of the tomato and lettuce greenhouse production systems

Dina STATUTO, Pietro PICUNO, Ahmed M. ABDEL-GHANY

Shading methods for crop protection under greenhouse in Mediterranean areas

Daniela DRĂGHICESCU, Dumitru ȚUCU, Oana Corina GHERGAN, Anuta IUSCO

Nuts varieties influence on walnut breaking and peeling process

Dan CUJBESCU, Cătălin PERSU, Iuliana GĂGEANU, Iulian VOICEA, Gabriel GHEORGHE, Nicoleta UNGUREANU

Mechanizing the garlic bulbs detaching into cloves

10.45-11.15 COFFEE BREAK

11.15-11.45 COMMERCIAL PRESENTATIONS

INA Maziva Zagreb

11.45-13.30 PAPER PRESENTATIONS

Peter SCHULZE LAMMERS

Performance test of sugar beet harvesters – test standard and test results

Ranko KOPRIVICA, Vera ĐEKIĆ, Biljana VELJKOVIĆ, Dragan TERZIĆ, Dragoslav ĐOKIĆ Zoran MILEUSNIĆ

The decrease of wheat yield on the plot edges – headlands due to soil compaction

Cristina HALBAC-COTOARA-ZAMFIR, Rares HALBAC-COTOARA-ZAMFIR, Jarbas H. DE MIRANDA

Economic design of drain depths and spacing using different EU and non-EU models

Rares HALBAC-COTOARA-ZAMFIR

Nature-based solutions for flood risk management: a Romanian case study

Katerina GABROVSKA-EVSTATIEVA, Boris EVSTATIEV, Dimitar TRIFONOV, Nikolay MIHAILOV

Autonomous powering of an orchard irrigation system and fruit storage

Boris EVSTATIEV, Katerina GABROVSKA-EVSTATIEVA, Dimitar TRIFONOV, Nikolay MIHAILOV

Solar energy potential to power the irrigation of orchards in Bulgaria

Denis STAJNKO, Damijan KELC, Miran LAKOTA

Potential reduction of ecological footprint, CO₂ emissions and GWP using auto tandem parlour system with heat exchanger

Damijan KELC, Peter VINDIŠ, Jurij RAKUN, Denis STAJNKO, Miran LAKOTA

Technology for a ‘baby leafe’ production of a Corn salad and Radicchio

Vlad Nicolae ARSENOAIA, Nicolae Valentin VLĂDUȚ, Ioan ȚENU, Iulian VOICEA, Petru Marian CĂRLESCU

Drying process modeling with effects of physical parameters on dehydrated seeds

Gabriel-Alexandru CONSTANTIN, Gheorghe VOICU, George IPATE, Gabriel MUSUROI, Elena Madalina STEFAN, Mariana Gabriela MUNTEANU, Dorel STOICA

Influence of motion type on granulometric distribution of grist obtained from some varieties of wheat and corn

13.30-15.30 LUNCH BREAK

15.30-17.30 PAPER PRESENTATIONS

Marin ČAGALJ, Ivo GRGIĆ, Josip GUGIĆ

Analysis of absorbed funds till the end of 2017 from the Rural Development Programme of the Republic of Croatia for the Period 2014-2020

Ivo GRGIĆ, Stjepan KRZNAR, Vjekoslav BRATIĆ

Agricultural production of the Republic of Croatia before and after EU accession

Nicolae FILIP, Victor ROS, Teodora DEAC, Lucian FECHETE-TUTUNARU

Romanian’s experience and perspectives regarding to education in biosystems engineering

Dumitru ȚUCU, George Cătălin CRIȘAN, Alexandru ȚUCU

The use of self-assessment in occupational risk management system in SMEs from agriculture

Ivo GRGIĆ, Marina PETRIĆ, Vladimir LEVAK, Magdalena ZRAKIĆ
Wine roads as a tourist offer of rural areas: attitudes of inhabitants of Zagreb City

Ivo GRGIĆ, Kristina BATELIĆ, Kristina SVRŽNJAK, Jernej PRIŠENK, Magdalena ZRAKIĆ
Attitudes of students on the role of agrotourism in preserving rural space

Carmela SICA, Aleksandra DIMITRIJEVIC
Water mills in Basilicata region – a heritage to be preserved

Giuseppe CILLIS, Dina STATUTO, Pietro PICUNO
Valorisation of historical farm buildings for protecting the rural landscape

Tomaž POJE
Analysis of pesticide application equipment inspection in 2017 in Slovenia

Viktor JEJČIČ, Tomaž POJE
Energy consumption in hay making

Viktor JEJČIČ, Tomaž POJE
Energy consumption in the production of vegetable oils at family farms

20.00 OFFICIAL DINNER

THURSDAY - 7th March 2019

10.00 Annual meeting of Croatian society of agricultural engineering

Registration fee payment information is accessible on website of the Symposium: <http://atae.agr.hr/>

All authors are kindly asked that any of coauthors of the paper have the oral presentation and to limit the time of presentation at 10 minutes!

We wish You a pleasant time in Opatija and useful contacts during Symposium.

Organiser of ATAE_2019



Hotel accommodation You can get directly at following link: [Grand hotel Adriatic booking service](#)

Congress package (breakfast and dinner)	Adriatic ****	
	Single room	Double room
	74,00 €	104,00 €

Prices in Euros are related to exchange rate of HRK

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web: <http://www.hotel-adriatic.hr/en/> mail: info@hotel-adriatic.hr