



**Special Monothematic Issue :: 2015(18)**



**ICOAS2015**

5th International Conference on Organic Agriculture Sciences

October 14-17, 2015  
Bratislava, Slovakia

*"Bringing Innovations to Organic Farming"*

---

**Editors**

**Magdaléna Lacko-Bartošová**

**Dóra Drexler**

**Ewa Rembiałkowska**

**Paola Migliorini**

**Charles Andrew Francis**

**Urs Niggli**

**Reviewers**

**Magdaléna Lacko-Bartošová** Slovak University of Agriculture in Nitra, Slovakia

**Dóra Drexler** Hungarian Research Institute of Organic Agriculture, Hungary

**Charles Andrew Francis** University of Nebraska-Lincoln, USA

**Eva Hunyadi Borbélyné** Hungarian Research Institute of Organic Agriculture, Hungary

**András Jung** Hungarian Research Institute of Organic Agriculture, Hungary

**Paola Migliorini** University of Gastronomic Sciences, Italy

**Petr Konvalina** University of South Bohemia, Czech Republic

**Urs Niggli** Research Institute of Organic Agriculture (FiBL), Switzerland

**Orsolya Papp** Hungarian Research Institute of Organic Agriculture, Hungary

**Ewa Rembiałkowska** Warsaw University Of Life Sciences, Poland

**Milan Šimko** Slovak University of Agriculture in Nitra, Slovakia

**Atle Wibe** Bioforsk, Norway

**Contents :: Short Communications**

Indirect indicators of baking quality of organic emmer wheat <b>Veronika Curna, Magdalena Lacko-Bartosova</b> .....	1-3
Emmer wheat – Production parameters <b>Veronika Curna, Magdalena Lacko-Bartosova</b> .....	4-6
An innovation for organic crop production by compost fertilizer of Isfahan municipal's waste as bionematicide and biofertilizer <b>M. Nasr Esfahani, Asghar Mohsenzade, Kermani N. Abbasi</b> .....	7-9
Production capabilities of catch crops <b>Martina Handlířová, Blanka Procházková, Vladimír Smutný</b> .....	10-12
Fragile ecosystems and scarce resources meet growing food demand: Is "business as usual" land use an appropriate long-term solution for the Alpine countries? <b>Judith Hecht, Rahel Meier, Klavdija Ramsak-Noemi, Lisa Mair, Othmar Schwank, Olaf Tietje, Matthias Stolze</b> .....	13-15
Effect of pre-crops, cover crops and manure application on organic potato production in a field experiment in eastern Austria <b>Tsolmon Nyamdavaa, Jürgen K. Friedel</b> .....	16-18
Natural Fusarium occurrence qualitative evaluation on cereals under conventional and organic system in the Czech Republic <b>Dagmar Janovská, Leona Leišová-Svobodová, Ivana Capouchová, Petr Konvalina, Martin Káš</b> .....	19-21
The grain quality of winter wheat in organic and conventional farming <b>Mariana Švančárková , Štefan Žák</b> .....	22-24
Weed infestation of maize grown in sustainable farming systems <b>Štefan Tyr , Ludmila Levakova, Veronika Curna</b> .....	25-27
Effect of tillage and fertilization on soil N forms <b>Boris Václav, Peter Ondrišík, Jana Urmińska</b> .....	28-30
Sustainable assessment of a vegetable farm using grass mulch in Japan <b>Eri Matsuura, Rahmatullah Hashimi, Daisuke Muramatsu,Masakazu Komatsuzaki</b> .....	31-33
Non-chemical weed control systems in organically grown spring oilseed rape <b>Aušra Marcinkevičienė, Rimantas Velička, Rita Mockevičienė, Rita Pupalienė, Zita Kriauciūnienė, Lina Marija Butkevičienė, Robertas Kosteckas, Sigitas Čekanauskas</b> ... 34-36	
Conceptual approach to assess farm-level sustainability in the Hungarian organic sector <b>Dóra Mészáros, Jan Landert, Balázs Sipos, Christian Schader, László Podmaniczky, Lukas Baumgart</b> .....	37-39
Biocompounds content in organic and conventional raspberry fruits <b>Renata Kazimierczak, Ewelina Hallmann, Karolina Kowalska, Ewa Rembiałkowska</b> .....	40-42
Textural properties of spelt noodles <b>Joanna Korczyk-Szabó, Magdalena Lacko-Bartosova</b> .....	43-44
Measuring and evaluating spelt bread texture <b>Joanna Korczyk-Szabó, Magdalena Lacko-Bartosova</b> .....	45-46

The egg parasitoid Telenomus sp. as a novel biocontrol agent to prevent the cabbage moth <b>Guendalina Barloggio, Lucius Tamm, Thomas Oberhänsli, Peter Nagel, Henryk Luka</b> .....	47-49
What do humus balances really tell about soil organic matter? <b>Christopher Brock, Meike Oltmanns, Günter Leithold</b> .....	50-52
Biodiversity enhancement and utilization – Pest control in brassicas <b>Henryk Luka, Guendalina Barloggio</b> .....	53-55
Greenhouse gases emissions from selected crops growing within organic farming <b>Jan Moudrý jr., Zuzana Jelínková, Jaroslav Bernas, Marek Kopecký, Petr Konvalina, Jan Moudrý, Jana Mráčková</b> .....	56-58
Winter wheat noodle colour evaluation in sustainable farming systems <b>Magdalena Lacko-Bartosova, Lucia Lacko-Bartosova</b> .....	59-61
Organic wild species crops: a tool to recover traditional knowledge, and to enhance biodiversity, food security and sustainable rural development <b>Marc Talavera Roma, Josep M. Ninot Sugrañes, Adrià Solé Cantero</b> .....	62-64
On-farm examination of main-crop potato varieties in Hungary <b>Orsolya Papp</b> .....	65-67
Field spectroscopy for precision organic production <b>András Jung, Boglárka Hegedüs, Dóra Drexler</b> .....	68-70
Effects of meat bone meal as fertilizer on leaf nitrogen status in sugar beet and on soil nitrate concentrations <b>Jukka Kivelä</b> .....	71-73
Productivity and technical efficiency of organic farming – A literature survey <b>Sebastian Lakner, Gunnar Breustedt</b> .....	74-77
An approach towards explaining market shares of organic food – Evidence from Swiss household data <b>Franziska Götze, Stefan Mann, Ali Ferjani, Andreas Kohler, Thomas Heckelei</b> .....	78-80
Selection and evaluation of emmer, einkorn and spelta germplasm in Greece for organic farming adaptability and bakery-nutritional quality <b>Kostas Koutis</b> .....	81-82
How growth of a local organic box scheme influenced supplying farmers <b>Susanne Kummer, Petra Hirner, Rebecka Milestad</b> .....	83-85
Educational innovations in agroecology: Learning-centred open-ended cases <b>Charles Francis, Anna Marie Nicolaysen, Suzanne Morse, Geir Lieblein, Tor Arvid Breland</b> .....	86-89
Effects of different ecological environments on phenological and cultural parameters of organically cultivated soybean ( <i>Glycine max</i> (L.) Merril.) <b>Éva Hunyadi Borbélyné, Mihály Földi</b> .....	90-93
Organic field trials to promote Hungarian organic cereal production – testing wheat varieties <b>Mihaly Földi, Dóra Drexler</b> .....	94-97
Humus, nitrogen and energy balances and greenhouse gas emissions of organic farming with biowaste compost fertilization <b>Eva Erhart, Harald Schmid, Kurt-Jürgen Hülsbergen, Wilfried Hartl</b> .....	98-101

The use of entomopathogenic fungi in biological control of pests <b>Eliška Ondráčková</b> .....	102-105
Detection of qualitative changes of ecologically cultivated wheat with different intensity of <i>Fusarium</i> spp. contamination using rheological system Mixolab <b>Ivana Capouchová, Ludmila Papoušková, Petr Konvalina, Dagmar Janovská, Monika Zrcková</b> .....	106-109
Carbon storage in soil size-density fractions after 20 years of compost fertilization <b>Eva Erhart, Adriano Tomasetti, Stefan Pantic, Dieter Haas, Katrin Fuchs, Marion Bonell, Wilfried Hartl</b> .....	110-112
Weak point analyze of nutrient cycles in organic dairy farms <b>Sommer Hendrik, Leithold Günther</b> .....	113-115
Antioxidant potential in selected species of small berry fruits <b>Lenka Predná, Marta Habánová</b> .....	116-118
P uptake, root properties and biomass of six cover-crops <b>Sebastian Radlwimmer, Jürgen KurtFriedel</b> .....	119-121
Linking animal welfare to sustainability indicators of farms <b>Sylvia Warnecke, Hans Marten Paulsen, Harald Schmid, Jan Brinkmann, Helmut Frank, Solveig March</b> .....	122-124
Socio-economic effects of the organic certification system <b>Bernhardt, Theresa</b> .....	125-127
Intercropping experiments in Hungarian vineyards <b>Ádám Donkó, Tamás Miglécz, Orsolya Valkó, Béla Tóthmérész, Balázs Deák, András Kelemen, Péter Török, Gábor Zanathy, György Zsigrai, Dóra Drexler</b> .....	128-130
Effect of Rhizobium and AM fungi inoculation on soybean <b>Tünde Takács, Imre Cseresnyés, Ramóna Kovács, István Parádi, Orsolya Gazdag, Tibor Szili-Kovács, Bettina Kelemen, Anna Füzy</b> .....	131-133
On-farm assessment of landrace of tomato ( <i>Lycopersicon esculentum</i> L.) under organic conditions in Hungary <b>Barbara Cseperkálóné Mirek, Dániel Reiter, Anna Divéky-Ertsey, Dóra Drexler</b> .....	134-137
Compost mulch no-tillage systems in organic vegetable production <b>Zoltán Dezsény</b> .....	138-141
Technological quality of minor wheat species from organic farming and possibilities of their use <b>Monika Zrcková, Ivana Capouchová, Petr Konvalina, Dagmar Janovská</b> .....	142-144
Consumer motivations in the purchase of organic foods in Hungary <b>Viktória Szente</b> .....	145-147
Organic market data: Bridging the gap between data collectors and end users <b>Robert Home, Catherine Gerrard, Corinna Feldmann</b> .....	148-150
Lobesia mating disruption by pheromone mesofiber dispensers <b>Hans E. Hummel, Simone Langner, Michael Breuer</b> .....	151-153
Social factors in the decision by Swiss farmers to convert to organic farming <b>Robert Home, Elke Ries, Anna Tschanz, Annina Indermühle</b> .....	154-156

---

Hungarian on-farm research program for varroa control in organic beekeeping <b>Tamás Csáki, Dóra Drexler</b> .....	157-159
Productivity and macroelements content of cereal and legume crops <b>Milan Macák, Štefan Žák, Marta Andrejčíková</b> .....	160-162
Earthworm diversity and ecosystem services in agriculture – Choosing appropriate taxon indicators and measurements <b>Sebastian Wolfrum, Anna Zvorykina, Anna Köhler, Susanne Papaja-Hülsbergen</b> .....	163-165
Nutrient balance of ecological and conventional cropping system <b>Milan Macák, Štefan Žák</b> .....	166-168
Unusually versatile plant genus <i>Azadirachta</i> with many useful and so far incompletely exploited properties for agriculture, medicine and industry <b>H.E. Hummel, S.S. Langner, D. F. Hein, U. Sanguanpong, H. Schmutterer</b> .....	169-175