



THE 12TH INTERNATIONAL SYMPOSIUM
**PROSPECTS FOR THE
3rd MILLENNIUM
AGRICULTURE**
26th - 28th of September 2013, Cluj-Napoca, Romania



BOOK OF ABSTRACTS



IMPRESSUM

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IMPRESSUM

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Organize

THE 12th INTERNATIONAL SYMPOSIUM

“PROSPECTS FOR THE 3rd MILLENNIUM AGRICULTURE”

26th – 28th of September 2013
Cluj-Napoca, Romania

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WELCOME MESSAGE

We are pleased to welcome you at the University of Agricultural Sciences and Veterinary Medicine from Cluj-Napoca, Romania to share our scientific performance and progress during this special scientific event.

The University of Agricultural Sciences and Veterinary Medicine from Cluj-Napoca, recently classified in the first category of “advanced research” universities of Romania, place also confirmed by the European University Association (EUA). The University becomes nowadays one of the most prestigious academic institutions from Romania.

The 12th International Symposium "Prospects for the 3rd Millennium Agriculture", is a dynamic forum of exchanges for scientific experiences, innovative ideas and concepts, future prospects in agriculture, plant and animal science, food science and technology, biotechnology, veterinary medicine, as well in other interdisciplinary and transdisciplinary areas.

The 12th International Symposium "Prospects for the 3rd Millennium Agriculture" includes invited conferences, presented by known international and national personalities, oral and poster presentations, as well round tables and exhibitions, where recent advanced scientific and technical results can be seen, especially now, in the context of the new European Research Program “Horizon 2020” and of the national Research – Technological Development and Innovation Program, related to Life Sciences.

The symposium program will consist of ten main sections:

1. Agriculture
2. Environmental Protection and Sustainable Development
3. Food Science and Technology
4. Horticulture and Forestry
5. Economics and Rural Development
6. Animal Science
7. Biotechnology
8. Veterinary Medicine - Fundamental and preclinical sciences
9. Veterinary Medicine - Clinical sciences
10. Land Measurement, Natural and Humanistic Sciences

The participants registered to our symposium have the opportunity not only to present their results, published as summary in the “Book of Abstracts” but also to publish in extenso their contributions. The oral presentations, after a previous peer review process, can be published in the journal Bulletin of UASVM-CN nr. 70(1-2)/2013–Agriculture, Horticulture, Animal Science-Biotechnology and Veterinary Medicine or nr. 1(1-2)/2013 – Food Science and Technology. To mention, the Bulletin UASVM-CN, now at volume 70, is indexed in prestigious international data bases.

This proceedings’ “Book of Abstracts” contain 717 abstracts submitted by participants from different countries. We wish to thank all participants and organizers for making this meeting possible. We do hope that you will find during the 12th International Symposium an interesting program and a great opportunity to interact with colleagues and friends from Romania.

With best wishes,

Prof. dr. Doru PAMFIL, Rector

Prof. dr. Carmen SOCACIU, Vice-rector for Research

ANNOTATION

**The abstracts and contact information are submitted by the main authors.
Each author explicitly confirms that the abstract meets the ethical standards for authors
and coauthors.**

SYMPOSIUM PROGRAM

Thursday, 26 th of September 2013		
8:00-12:00	Registration of participants (Hall, Aula Magna “Mihai Serban”, USAMV Cluj-Napoca)	
9:00-9:15	Opening ceremony (Aula Magna “Mihai Serban”)	Rector, Prof. D. Pamfil Representatives of Ministry, Academy and local authorities
9:15-10:30	1st Plenary Session	
9:15-9:40	Extensive land use systems and their significance for safeguarding European cultural and ecological heritage	Rainer LUICK, Germany
9:40-10:05	Innovation in the cryopreservation (-196°C) of plant biodiversity	Maurizio LAMBARDI, Italy
10:05-10:30	The biosynthesis, regulation and engineering of high-value and nutritional isoprenoids in plants	Paul FRASER, UK
10:30-10:50	Coffee break	
10:50-12:00	2nd Plenary Session	
10:50-11:15	Potential of insects as an innovative source of proteins for feed production	Andre THEWIS, Belgium
11:15-11:40	Maternal effects participate to the gut length control	Sylvain BELLIER, France
11:40-12:05	International Master Program organized by the CASSE network	Barbara HINTERSTOISSER, Austria
12:10-13:10	Ceremony of Doctor Honoris Causa Prof. Dr. Vasile Vântu – Rector of USAMV Iași Prof. Dr. Petru Alexe – University “Dunarea de Jos” Galați	
13:20-14:30	Lunch (<i>Biodiversity Institute and Agronomia Restaurant</i>)	
14:30-19:00	Oral Sessions (sections I-X)	
20:00-21:30	Dinner (<i>Agronomia restaurant</i>)	
Friday, 27 th of September 2013		
09:00-11:00	Oral Sessions (sections I-X) and	Poster viewing (Hall, Institute of Life Sciences)
08:30-12:00	Round table – “Bioenergetic status change by the action of the bio-phyto-dynamic modulators.”	Hall 24 – Faculty of Horticulture
9.00 – 11.00	WORKSHOP - ”Neurologic examination in domestic large animals” and ”Imaging diagnosis in gastroenterology in domestic large animals”	Blue Hall of FMV Cluj- Napoca

9.00 – 11.00	Round table – "Actualités dans l'Éthologie et l'Ethopatologie chez les animaux de compagnie"	La salle du Conseil profesoral FMV CN
11:00-11:30	<i>Coffee break</i>	
11:30-13:00	Oral Sessions (sections I-X) and	Poster viewing (Hall, Institute of Life Sciences)
13.00-15:00	<i>Lunch (Agronomia restaurant)</i>	
14:00-17:00	Round table - "Insights on the Fertilizers Industry in Context of Romanian Economic, Climatic, and Social Challenges"	Hall A6 – Faculty of Agriculture
15:00-17:00 15:30-16:30	Poster Sessions and presentations (sections I-X) Presentation of fellowship program offered by DBU (German Foundation for Environment) (room 26, Institute of Life Sciences)	
19:00-24:00	<i>Banquet (Center for Biodiversity)</i>	
Saturday, 28th of September 2013		
08:00-21:00	Transylvania tour – optional (35 EURO) Visit of Sighisoara medieval city - a UNESCO World Heritage (details in http://www.romaniatourism.com/sighisoara.html) and Saline Turda (http://www.salinaturda.eu).	

LIST OF ABSTRACTS

ORAL PRESENTATIONS..... 40

SESSION 3: FOOD SCIENCE AND TECHNOLOGY

THE BIOSYNTHESIS, REGULATION AND ENGINEERING OF HIGH-VALUE AND NUTRITIONAL ISOPRENOIDS IN PLANTS Fraser P.D.....	41
NOVEL PROCESSING FOR MIXING AND LAMINATION OF WHEAT-DOUGH -FULLY CONTINUOUS OPERATING INDUSTRIAL DOUGH-PROCESS- Börsmann J. ¹ , Gross F. ² , Delgado A., Zeh R., Endrass B., Mathis W., Fehner D. ¹ , von Barga M. ¹ , Lösche K. ¹	42
PRELIMINARY RESEARCH REGARDING HIGH GRAVITY BREWING IN THE PILOT STATION USAMV CLUJ-NAPOCA Borşa A., Mudura E.*, Hădărean Munteanu V.V., Muste S., Cerbu (Mureşan) A., Vlaic R.	43
NUMERICAL MODELING OF CFD MODEL APPLIED TO A HAMMER MILL Budăcan I. and Deac I.*	44
SIZE DISTRIBUTION OF WHEAT MILLED PARTICLES OBTAINED BY USING A HAMMER MILL Budăcan I., Drocaş I.*, Pop D.**	45
FOOD CONSUMPTION IN ROMANIA – QUANTITATIVE AND QUALITATIVE ASPECTS OF FOOD SECURITY Gavrilă V., Kruzlicika M., Chirişescu V.*	46
RESEARCH ON THE PROGRESS OF MICROBIOLOGICAL PARAMETRES DURING THE RIPENING OF TWO KINDS OF SEMI-HARD CHEESE Jimborean M. and Tibulca D.*	47
THE INFLUENCE OF HAMMER TYPE USED IN GRINDING MILLS ON GRIST FINENESS Muntean M.V. ¹ , Marian O. ¹ , Ranta O. ¹ , Drocaş I. ¹ , Catunescu G.M.	48
THE INFLUENCE OF PALM OIL ADDITION ON SUNFLOWER HALVA STABILITY AND TEXTURE Mureşan V.* ⁽¹⁾ , Danthine S. ⁽²⁾ , Racołta E. ⁽¹⁾ , Muste S. ⁽¹⁾ , Blecker C. ⁽²⁾ , Borşa A. ⁽¹⁾ , Mureşan E.A. ⁽¹⁾	49
QUALITY CONTROL OF WILD BERRIES HONEY SYRUP Hîngan A. M., Muste S., Stan L.	50

THE INFLUENCE OF PALM OIL ADDITION ON SUNFLOWER HALVA STABILITY AND TEXTURE

Mureşan V.*⁽¹⁾, Danthine S.⁽²⁾, Racolfa E.⁽¹⁾, Muste S.⁽¹⁾, Blecker C.⁽²⁾, Borşa A.⁽¹⁾, Mureşan E.A.⁽¹⁾

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Keywords: oil separation problem, halva stability, halva texture, palm oil.

Introduction: Halva is one of the most popular food products of Middle Eastern and North African countries, deriving its specific texture from a mixture of nougat (sugar and glucose syrup beat with soapwort extract) and tahini (a paste produced by milling roasting seeds or nuts). In Eastern European countries halva recipe has been adapted since years by using as main raw material sunflower seeds due to their high availability in this region. Even if sunflower halva is a very appreciated product, it has currently a quality below the expectations of the new generation of consumers. Sunflower halva main issue is caused by the oil which separates at the surface during storage, determining a low commercial aspect of the product.

Aims: The aim of this work is to assess the influence of palm oil addition on sunflower halva stability and texture.

Materials and methods: The nougat and sunflower tahini were obtained by traditional technology at S.C. Amylon S.A. Sibiu, Feleacul Plant Cluj-Napoca, Romania. In order to assess the influence of palm oil addition, samples containing different oil percentages [m/m] (1%, 2%, 3%, 4%, 5%) were prepared. A control sample was prepared using the standard recipe (no palm oil added). For texture analysis a Brookfield CT3 Texture Analyzer with the Texture Pro CT software was used. All samples were stored for 40 days at two different temperatures (1-2°C and 15-20°C). During storage the colloidal stability of all samples was evaluated by a gravimetric technique, with a precise determination on the percentage of the exudated oil.

Results: After the storage test at 1-2°C, there were not significant differences between the samples, the percentages of separated oil being below 0.6%, for all palm oil containing samples as well as for control. On the other hand, for higher storage temperature conditions, after 40 days of storage at 15-20°C the control sample had separated 4.53%, very close to sample containing 1% of palm oil (4.77%). With respect to the control sample, the halva samples containing 4% and 5% of palm oil showed a decrease in their stability, while samples 2% and 3% showed an improved stability (3.44% and 1.78% of separated oil).

Conclusion: During this study it was established that the sample containing 3% palm oil was the most efficient, regarding its organoleptic and textural properties, as well as its colloidal stability.