



THE 13<sup>TH</sup> INTERNATIONAL SYMPOSIUM  
**PROSPECTS FOR THE  
3<sup>rd</sup> MILLENNIUM  
AGRICULTURE**  
25<sup>th</sup> - 27<sup>th</sup> of September 2014, Cluj-Napoca, Romania



# BOOK OF ABSTRACTS

No. 1/2014



## TEXTURE AND STABILITY OF SUNFLOWER HALVA PRODUCED FROM DIFFERENT PARTICLE SIZE TAHINI

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**Keywords:** halva, tahini, stability, texture, sunflower

**Introduction.** Sunflower halva is an appreciated product, but shows currently a quality below the expectations of the new generation of consumers, having a hard texture and oil exuded on the surface (low stability).

**Aims.** The aim of this work was to assess the influence of tahini particle size on sunflower halva texture and stability.

**Materials and methods.** Eight, different particle size sunflower tahini samples were produced at pilot plant scale, the higher the number of passes through the colloidal mill, the smaller the particle size (P1- coarsest → P8 - finest). Tahini samples particle size were assessed by laser diffraction. Halva prototypes (25g / piece), including also an industrial sample (H0), were obtained at laboratory scale by mixing the nougat with tahini. The texture was evaluated on a Stable micro systems TA. HD Plus texture analyzer equipped either with a cylinder probe (P/0.5,  $\Phi$ 1/2", Derlin) or a blade set. All samples were stored for 60 days at 4°C, room temperature (25±3°C) or 40°C. During storage the colloidal stability of all samples was assessed by a gravimetric technique.

**Results.** Tahini samples P6 → P8 were not suitable for halva production while due to the low viscosities, the product was impossible to be shaped. Among obtained sunflower halva prototypes (H1 → H5) it was shown that decreasing tahini particle size decreased sunflower halva hardness and stability. For each sample, the increase of storage temperature, decreased sunflower halva stability.

**Conclusion.** Sunflower halva H3 was the most efficient, while was more stable and showed smaller hardness values than H0.

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## **IMPRESSUM**

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# **IMPRESSUM**

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## **THE 13<sup>th</sup> INTERNATIONAL SYMPOSIUM**

### **“PROSPECTS FOR THE 3<sup>rd</sup> MILLENNIUM AGRICULTURE”**

25<sup>th</sup> – 27<sup>th</sup> of September 2014  
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 13<sup>th</sup> 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 13<sup>th</sup> 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. Biotechnologies
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. 71(2)/2014 –Agriculture, Horticulture, Animal Science-Biotechnologies, Veterinary Medicine and Food Science and Technology.

This proceedings’ “Book of Abstracts” contain 782 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 13<sup>th</sup> 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, 25 <sup>th</sup> of September 2014		
8:00-16:00	Registration of participants (Hall, Aula Magna "Mihai Serban", USAMV Cluj-Napoca)	
9:00-9:20	Opening ceremony (Aula Magna "Mihai Serban")	Rector, Prof. D. Pamfil Representatives of Ministry, Academy and local authorities
9:20-11:00	1 <sup>st</sup> Plenary Session	
9:20-9:50	Who represents plant scientists at European level – how can you have a say?	Karin METZLAFF, Belgium
9:50-10:20	Plant breeding: new directions for an old science	Clay SNELLER, USA
10:20-10:50	Flavonoids: Antioxidants for human health and plant defence	Oscar VICENTE, Spain
11:00-11:30	<i>Coffee break</i>	
11:30-13:00	2 <sup>nd</sup> Plenary Session	
11:30-12:00	The importance of traditional agriculture for sustainable development	Stefano GREGO, Italy
12:00-12:30	Wild and managed honey bees in Africa, impact on colony health	Robin M. CREWE, South Africa
12:30-13:00	Bovine papillomavirus type 13 expression in the urothelial bladder tumours of cattle	Franco ROPERTO, Italy
13:00-14:30	<i>Lunch (Biodiversity Institute or Agronomia Restaurant)</i>	
14:30-19:00	Oral Sessions (sections I-X)	
20:00-21:30	<i>Dinner (Agronomia restaurant)</i>	
Friday, 26 <sup>th</sup> of September 2014		
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11:30-13:00	Oral Sessions (sections I-X)	
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15:00-17:00	Round table - " Contribution of Innovative Fertilization to Agriculture Progress "	Hall A6 – Faculty of Agriculture
15:00-17:00	Poster Sessions and presentations (sections I-X)	
19:00-24:00	<i>Banquet (Napoca Hotel)</i>	
Saturday, 27 <sup>th</sup> of September 2014		
08:00-21:00	Post - symposium tours(optional) – 35 Euros or 150 lei <b>1. Saxon Transylvania Tour</b> Route: Cluj-Napoca-Bazna-Mediaş-Biertan-Sibiu-Cluj-Napoca  <b>2. Transylvania Village Tour</b> Route: Cluj-Napoca-Turda-Rimetea-Colteşti-Aiud-Alba Iulia-Cluj-Napoca	



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