



14th Baltic Conference on Food Science and Technology

FoodBalt2021

“Sustainable Food for Conscious Consumer”

Book of abstracts



Tallinn 2021



Center of Food and Fermentation Technologies

14th Baltic Conference on Food Science and Technology

FoodBalt 2021

“Sustainable Food for Conscious Consumer”

Book of abstracts

Tallinn, Estonia

2021



**Latvia University
of Life Sciences
and Technologies**



Conference Organizers

Scientific Committee

Prof. Raivo Vilu Center of Food and Fermentation Technologies, EE

Ene Viiard, Ph.D. Center of Food and Fermentation Technologies, EE

Sirli Rosenvald, Ph.D. Center of Food and Fermentation Technologies, EE

Ranno Nahku, Ph.D. Center of Food and Fermentation Technologies, EE

Mary-Liis Kütt, Ph.D. Center of Food and Fermentation Technologies, EE

Anna Traksmäa, Ph.D. Department of Chemistry and Biotechnology at TalTech, EE

Prof. Petras Rimantas Venskutonis Kaunas University of Technology, LT

Prof. Daiva Leskauskaitė Kaunas University of Technology, LT

Prof. Inga Ciprova Latvia University of Life Sciences and Technologies, LV

Prof. Ruta Galoburda Latvia University of Life Sciences and Technologies, LV

Prof. Aušra Šipailienė Main organizer of FoodBalt in Kaunas, LT

Erkan Yalcin Ph.D. Bolu Abant İzzet Baysal University, TR

Organizing Committee

Kättrin Karu Center of Food and Fermentation Technologies, EE

Mari-Liis Kutti Center of Food and Fermentation Technologies, EE

Ene Viiard, Ph.D. Center of Food and Fermentation Technologies, EE

Mary-Liis Kütt, Ph.D. Center of Food and Fermentation Technologies, EE

Sirli Rosenvald, Ph.D. Center of Food and Fermentation Technologies, EE

Martti Tamm, Ph.D. Center of Food and Fermentation Technologies, EE

Prof. Rimantas Venskutonis Kaunas University of Technology, LT

Zanda Krūma Ph.D. Latvia University of Life Sciences and Technologies, LV

FoodBalt 2021: Book of abstracts

Publisher: Center of Food and Fermentation Technologies

Editor: Mari-Liis Kutti

Copyright: the editor and authors, 2021

Dear colleagues,

FoodBalt2021 was supposed to take place in 2020 and be the 14th conference in a row. TFTAK, Center of Food and Fermentation Technologies in Tallinn was preparing the conference to take an honorable place in the chain of events as a traditional meeting of Baltic food and biotechnologists with their international colleagues. COVID-19 spoiled our plan. The conference was postponed first for a year and now it is clear that we cannot meet face-to-face even in 2021. Considering this the Organizing Committee decided to make the least possible and publish the abstracts sent to us now as a token of goodwill. Let the FoodBaltic2021 abstract book be a firm indication that after getting over the pandemic we shall meet again in person and enjoy scientific and personal discussions as neighbors and colleagues.

Having read the abstracts we can assure you and us all that it would have been an interesting and high-level international conference!



Professor Raivo Vilu
Research Director, TFTAK
Scientific Committee of FoodBalt2021

THE APPLICATION OF TRITICALE FLOUR FOR THE PRODUCTION OF COOKIES

Miona Belović^{1*}, Aleksandra Torbica¹, Dubravka Škrobot¹, Jelena Tomić¹, Ivana Čabarkapa¹, Dragan Živančev², Slaviša Štatkić², Vladimir Aćin², Kristína Kukurová³, Zuzana Ciesarová³

¹ University of Novi Sad, Institute of Food Technology, Bulevar cara Lazara 1, 21000 Novi Sad, Serbia

² Institute of Field and Vegetable Crops, Small Grains Department, Maksima Gorkog 30, 21101 Novi Sad, Serbia

³ NPPC VÚP National Agricultural and Food Centre in Slovakia, Food Research Institute, Priemysel'ná 4, 824 75, Bratislava, Slovakia

Triticale is a hybrid cereal developed by crossing of wheat and rye. It is characterized by higher environmental tolerance than wheat and increased content of lysine, amino acid which is deficient in most cereals. The application of triticale flour in bakery and confectionary industry is limited by high stickiness of dough and low gluten strength. Refined and wholegrain flour prepared from hexaploid triticale cultivar 'Odisej' were used for the production of cookies in this study. The cookies were prepared according to the standard method of American Association of Cereal Chemists for the evaluation of baking quality of cookie flour – micro wire-cut formulation. Dimensions, colour, hardness and sensory properties of triticale cookies were compared to the cookies prepared from refined and wholegrain wheat and rye flours.

Spread ratio of cookies manufactured from refined triticale flour did not differ significantly from refined wheat flour cookies, while instrumentally determined hardness and sensory scores for structure and chewiness were in the range obtained for wheat flour cookies. Total sensory score of cookies manufactured from refined triticale flour was the highest among all samples, indicating that refined triticale flour is suitable for the production of cookies. However, cookies prepared from wholegrain triticale flour were characterized by the lowest spread ratio and the lowest score for appearance, while its texture was assessed as too crumbly. It is supposed that different milling technique is needed to obtain wholegrain triticale flour which is more suitable for cookie production.

Keywords: *triticale, cookies, colour, texture properties, sensory properties*

*For further information please contact: miona.belovic@fins.uns.ac.rs