

Advanced
search[Home](#) / [Journals](#) / [Nutrition & Food Science](#) / [Volume 52 Issue 4](#)

/ Research of resilience and elastic properties of short pastry with the meals of soy, sunflower and milk thistle

To read this content please select one of the options below:

[Access through your institution](#)[Access and purchase options](#)

Research of resilience and elastic properties of short pastry with the meals of soy, sunflower and milk thistle

[Vitalii Mihailik, Oksana Vitriak, Inna Danyliuk, Mykola Valko, Olga Mamai, Tatyana Popovych, Anna Ryabinina, Lyudmila Vishnevskaya, Valentyna Burak, Ludmila Vognivenko](#) ▼[Nutrition & Food Science](#)

ISSN: 0034-6659

(International

Article publication date: 17 December 2021

Standard

[Permissions](#)

Serial publication date: 28 April 2022

Number.)

DOWNLOADS



69

Abstract

Purpose

The purpose of this paper is to study the resilience and elastic properties of short pastry with the meals of soy, sunflower and milk thistle.

Design/methodology/approach

Recent studies in the emerging food technologies of short pastry with use of meals were considered. Their focus on the improvement of the functional peculiarities of short pastry and benefits for people were the defining characteristics of the studies.

Findings

Model food compositions have been developed from soybean meal, sunflower meal and milk thistle for adding them to semi-finished short pastry products. The technology of short pastry confectionery made from short pastry with oilseed meal has been scientifically substantiated and developed. The chemical composition of shortbread cookies with the use of oilseed meal was calculated. The developed technology increased protein content by 2.5 times, cellulose content – by six times, significantly increased mineralization in the developed confectionery products. The content of calcium increased by 172.9 mg, selenium – by 13.06 mcg, iodine – by 2.76 mcg and vitamin E by 2.4 mg.

Practical implications

The developed technology of short pastry with a model composition of the meal can be used in practice. The use of a meal composition is a promising direction to improve the brittleness of short pastry products. The developed pastry products made from short pastry with added meal can be introduced into catering establishments as functional products with improved biological value.

Social implications

Developed pastry products can be used as functional products with improved biological value, which is important for people's health and has positive effects on the human body.

Originality/value

The use of meals of soy, sunflower and milk thistle in short pastry increases its nutritional and biological value, which improves the impact on the human body. The developed pastry products can be introduced as functional products with improved biological value, which is important for the improvement of people's health in different countries of the world.

Keywords

Meals

Model compositions

Oilseeds

Shortbread

Citation

Mihailik, V., Vitriak, O., Danyliuk, L., Valko, M., Mamai, O., Popovych, T., Ryabinina, A., Vishnevskaya, L., Burak, V. and Vognivenko, L. (2022), "Research of resilience and elastic properties of short pastry with the meals of soy, sunflower and milk thistle", *Nutrition & Food Science*, Vol. 52 No. 4, pp. 752-764. <https://doi.org/10.1108/NFS-06-2021-0189>

 [Download as .RIS](#)

Publisher: Emerald Publishing Limited

Copyright © 2021, Emerald Publishing Limited

[Support & Feedback](#) ▲ [Manage cookies](#)



© 2025 Emerald Publishing Limited. All rights reserved, including rights for text and data mining, artificial intelligence training and similar technologies.

Services

[Authors](#)

[Editors](#)

[Librarians](#)

[Researchers](#)

[Reviewers](#)

About

[About Emerald](#)

[Working for Emerald](#)

[Contact us](#)

[Publication sitemap](#)

Policies and information

[Privacy notice](#)

[Site policies](#)

[Modern Slavery Act](#)

[Accessibility](#)