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## The higher utilization of flour from nettle seeds in order to obtain innovative bakery products by their fortification

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The nettle (*Urtica dioica* L.), which is well-known for its properties, is widely spread throughout the temperate and tropical zones around the world. The aim of this product is to enrich bakery products by fortification, thus their nutritional value being raised. This has a positive impact on the consumers who, nowadays, take a growing interest in functional products which are rich in active compounds. Bread enriched with flour from nettle seeds is a product with high nutritional value. The innovative feature of this product consists in its being enriched with essential fatty and amino acids by the addition of 3%, 6% and 9%, respectively, of nettle seed flour. As a result, products with higher nutritional and functional properties have been obtained. The new products, thus, have had increased contents of protein (from  $6.60 \pm 0.14$  to  $7.16 \pm 0.14\%$ ) and fat (from  $17.48 \pm 0.11$  to  $2.85 \pm 0.21\%$ ). Moreover, the content of polyphenols also increased from  $49.88 \pm 0.42$  to  $88.55 \pm 0.96$  mg EAG/100 g, whereas the antioxidant activity increased from  $56.81 \pm 1.10$  to  $77.91 \pm 0.77\%$ . According to the sensory analysis by using the hedonic test the most appreciated bread was found to be that with 6% flour from nettle seeds. In terms of the texture analysis, the control sample compared to the samples with 3% and 6% added flour showed close results; a decrease was though noted in the sample with 9% added flour as compared to the control.

### Biography

Romina Alina Vlaic has more than 6 years of experience in exploitation of food science, development and optimization of functional food products, extraction and analysis of bioactive compounds (polyphenols, volatile oils, natural pigments, vitamins, proteins, fiber, essential fatty acids and sugars), and determination of food products quality parameters. She has obtained her PhD in the field of Agriculture. In 2016 and 2017 she was awarded with Excellence Diploma at the International Salon of Inventions, Proinvent approved by Ministry of Education and the Academy of Technical Sciences of Romania.

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