

<https://doi.org/10.17221/206/2021-CJFS>

Impact of plant additives: Parsley (*Petroselinum crispum*) leaves and red bell pepper (*Capsicum annuum*) on the quality of eggless wheat pasta

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Citation: Covaliov E., Deseatnicova O., Resitca V., Suhodol N., Grosu C., Siminiuc R. (2022): Impact of plant additives: Parsley (*Petroselinum crispum*) leaves and red bell pepper (*Capsicum annuum*) on the quality of eggless wheat pasta. Czech J. Food Sci., 40: 281–289.

Abstract: Pasta is very popular among different groups of the population, being a healthy and cheap product. Therefore, pasta is a promising object for its enrichment with functional ingredients. The paper examined the possibility and feasibility of using red bell pepper powder (BPP) and parsley leaf powder (PLP) in order to enhance the pasta biological value. Recipes of spaghetti pasta production with the addition of red BPP and PLP were developed. The effect of powders from red bell pepper and parsley leaf incorporation on the physicochemical and culinary properties of pasta was studied. The enrichment of pasta induced a decrease in optimal cooking time, swelling index (*SI*) and water absorption index (*WAI*). The addition of plant powders decreased the lightness of pasta significantly ($P < 0.05$) compared to the control sample. On the other hand, the addition of vegetable powders has a positive influence on the total polyphenol content (TPC) and antioxidant activity of pasta. In enriched pasta, the polyphenol content has doubled (pasta with 10.0% BPP) or even tripled (pasta with 10.0% PLP). The received scores from the sensory evaluation showed that pasta fortified with PLP and red BPP can be a technological alternative to provide nutritionally enriched pasta.

Keywords: vegetable powders; swelling index; polyphenols; antioxidant activity

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Received: April 16, 2022

Accepted: May 30, 2022

Published online: July 11, 2022