

NUTRITIONAL AND SENSORY EVALUATION OF WHEY CHEESE PRODUCED WITH DRIED BLACK CHOKEBERRY POMACE

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Abstract

The integration of fruit by-products into dairy products is a chance to improve nutritional value and sensory attractiveness while promoting sustainable food production. This study examines the nutritional and sensory assessment of cheese made with the incorporation of dried black chokeberry (*Aronia melanocarpa*) pomace. Nutritional analyses concentrated on proximate composition, dietary fiber, phenolic compounds, and antioxidant capacity, contrasting enriched cheeses with control samples. The results revealed a substantial enhancement in total polyphenols (4.45 ± 0.27 - 9.13 ± 0.31 mg GAE/g dw), dietary fiber, and antioxidant activity (26.43 ± 0.24 - 48.94 ± 0.34 μ mol TE/g dw) in cheeses fortified with chokeberry pomace, underscoring its potential as a functional ingredient. Sensory evaluation demonstrated that moderate incorporation of pomace was positively perceived, particularly through improvements in colour and appearance, whereas higher inclusion levels were associated with a slight reduction in overall flavour acceptability. The results indicate that dried black chokeberry pomace can be effectively employed in cheese production to enhance nutritional attributes while preserving acceptable sensory qualities, hence facilitating the creation of value-added functional dairy products.

Keywords: Aronia Pomace, Anthocyanins, Antioxidant activity, Cheese Enhancement, Consumer Acceptance