STUDIES ON THE QUALITY OF FOOD PRODUCTS ENRICHED WITH BUCKWHEAT, BASIL AND SUNFLOWER OIL

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Abstract

This study investigates the impact of adding buckwheat and basil on the quality of food products formulated with sunflower. The research focuses on the chemical, functional, and sensory characteristics of the products, with the objective of demonstrating how these ingredients contribute to the creation of modern functional foods. Buckwheat is a pseudocereal rich in flavonoids, fiber, and high-biological-value proteins, known for its antioxidant properties and its contribution to improving the nutritional profile of food preparations. Basil, through its essential oils, provides a significant contribution of bioactive compounds with a protective effect against oxidative processes, as well as a highly appreciated aromatic profile. Sunflower oil, rich in vitamin E and polyunsaturated fatty acids, offers important nutritional benefits but shows lower oxidative stability. In contrast, rapeseed oil has a balanced fatty acid profile and higher resistance to degradation processes, which makes it suitable for functional formulations. By combining buckwheat and basil with these oils, products with superior nutritional value, improved stability, and increased sensory acceptability can be obtained. The study confirms the potential of these combinations in the modern food industry and outlines future directions for the development of innovative, healthier products adapted to the demands of contemporary consumers.

Key words: *buckwheat, basil, functional foods, nutritional value, sensory characteristics*#