

## DEVELOPMENT OF A WAFER FILLING FOR CHILDREN'S FOOD PRODUCTS

**O.V. Romanenko<sup>1</sup>, D.V. Matiukhov<sup>2</sup>**

<sup>1</sup> Graduate Student, Department of Technology of Fats and Fermentation Products, NTU "KhPI", Kharkiv, Ukraine

<sup>2</sup> Associate Professor, PhD in Engineering, Department of Technology of Fats and Fermentation Products, NTU "KhPI", Kharkiv, Ukraine

[romanenko.aleksa@gmail.com](mailto:romanenko.aleksa@gmail.com)

Today, the market for children's confectionery products focuses not only on improving taste and appearance, but also on enhancing the nutritional and functional value of products. A wafer filling made from natural ingredients can combine a pleasant taste with health benefits for children.

The purpose of this study is to justify the feasibility of producing such a filling with high nutritional, biological, and functional value, based on natural ingredients — vegetable oils, skimmed milk powder, cocoa powder, inulin, and fruit jams — to enhance the preventive value for children's health.

The recipe includes a blend of coconut, pumpkin seed, and wheat germ oils. Coconut oil provides medium-chain triglycerides (MCTs), which can be quickly converted into energy without promoting fat storage, making them particularly important during childhood [1]. Pumpkin seed oil is rich in polyunsaturated fatty acids, phytosterols, tocopherols, and minerals that support the cardiovascular and immune systems [2]. Wheat germ oil contains  $\alpha$ -tocopherol (vitamin E), which aids in nervous system development and cognitive function [2]. Skimmed milk powder supplies complete proteins, calcium, and B vitamins, crucial for growth and bone formation. Inulin, a natural prebiotic, stimulates beneficial gut microflora, improves mineral absorption, and reduces infection risks [3]. Fruit jams (such as cherry, blueberry, and blackcurrant) enrich the filling with antioxidants, vitamins, polyphenols, and natural pectins, which improve immunity, digestion, and intestinal health, while adding a pleasant taste and color [4, 5]. Cocoa powder enhances flavor and aroma, providing polyphenols that support cognitive function and antioxidant protection [1]. The developed wafer filling offers a safe, beneficial, and tasty option suitable for children's daily diets and industrial confectionery production. Its natural composition and pleasant texture make it attractive to children while delivering essential nutrients, antioxidants, and prebiotics necessary for healthy development.

### References:

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