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THE USE OF AMARANTH IN THE FORMULATION OF FISHMEAL CULINARY PRODUCTS FOR FUNCTIONAL PURPOSES

The analysis of the nutritional status of the population of Ukraine shows that the structure of nutrition is deformed and has disorders, which leads to cardiovascular and oncological diseases, obesity, impaired gastrointestinal tract functions, diabetes mellitus etc.

To improve the nutrition structure of the population of Ukraine, it is advisable to improve traditional technologies and create new ones for functional products.

The aim of the work is to develop a formulation for fish-based culinary products by enriching traditional recipes with functional ingredients of plant origin.

One of the promising directions for creating functional products based on fish raw materials is food varieties of amaranth since they have a rich nutrient composition. Amaranth seeds, from which flour, starch, bran, and oil are made, have a high nutritional value. Depending on the variety, it consists from 13 to 21 % proteins; 6–9 % lipids, which have a high concentration of polyunsaturated fatty acids (linoleic and linolenic) and biologically active components; 60 % starch, a complex of vitamins B, C, E; carotenoids; a significant amount of macro and microelements, in particular iron and calcium [1].

Amaranth protein has a balanced amino acid composition, the main value of which is essential amino acids. In the lipid fraction, amaranth

seeds contain up to 11 % squalene that acts as a regulator of lipid and steroid metabolism in the human body and also has pronounced antioxidant properties [2].

The aboveground part of amaranth contains about 10–12 % pectin, and the seeds contain protopectin. These substances are widely used in the food industry and medicine to remove heavy metals and radionuclides from the human body [1]. The formulation and technology of fishmeal culinary products have been improved with the partial replacement of wheat flour with amaranth flour. The quantitative ratio of the proposed components was established during a one-factor experiment.

It has been established that the introduction of amaranth flour has a positive effect on the quality of fishmeal culinary products. They have an attractive appearance, juicy, delicate consistency, harmonious smell, and taste.

The Harrington method was used to conduct a comprehensive assessment of the quality of new fishmeal culinary products.

Thus, the possibility of using amaranth flour in the formulation of fishmeal culinary products has been substantiated to improve the organoleptic properties and increase the biological value of products.

Key words: functional products, amaranth, fishmeal culinary products.

List of sources used

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