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35. DEVELOPMENT OF HEALTHY FOOD PRODUCTS

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Functional ingredients that are added to benefit human health include probiotic bacteria, prebiotics, dietary fibers, synbiotics, plant sterols, antioxidants, polyunsaturated (ω -3, ω -6) fatty acids, bioactive peptides, vitamins and minerals. As for meat products, it is important that the addition of functional ingredients does not change their properties, and that the new ingredients are present in the formulations in quantities that positively affect the health of consumers.

Modern production of functional food products based on meat raw materials is developing in the direction of expanding the species diversity of products, combining and optimizing its composition in order to achieve proper nutritional and biological value, preserving the most important components of the raw materials, compensating for the lack of a number of macro- and micronutrients by including functional ingredients in the recipe.

Modification of meat products by changing the content of lipids and fatty acids or by adding fibers, vegetable proteins, monounsaturated or polyunsaturated fatty acids, vitamins, calcium, phytomaterials and other ingredients is widely used. The trend of using functional bioactive compounds in meat production is becoming increasingly relevant. Undoubtedly, these components can significantly affect human health, but the qualitative and quantitative composition of these substances should be properly selected. No less important in the development of functional meat products is also due consideration of the deficiency of certain substances in the diet of specific groups of consumers. The process of creating new meat products with functional properties is complex and depends not only on the impact of functional ingredients on the nutritional value of the final product, but also on how well it will be manufactured.

When creating meat-based food products, the following rules are followed. The physiological effect is more pronounced when the protein component of functional meat

products combines protein of animal and plant origin - sources of animal protein in the product can be beef, pork, poultry, and sources of plant protein - chickpeas, soybean products, cereals and grains. It is necessary to take care of the proper enrichment of the functional product with vitamins, macro- and microelements in their optimal ratio, polyunsaturated fatty acids, dietary fiber, etc.

Fats from meat raw materials are added to the composition of the complex fat component and, as a source of polyunsaturated fatty acids, oils such as sunflower, corn, linseed, soybean, etc. In meat-based foods, the source of carbohydrates is usually plant products - cereals, vegetables, which contain a sufficient amount of fiber and dietary fiber.

The rational energy value of 100 g of the product should be within 150-200 kcal. There is information about the feasibility of using rice and corn flour and cereals in functional meat products in order to save resources of valuable proteins of animal origin. Important components of functional foods are vegetable oils. In particular, they contain sterols that have a pronounced antioxidant effect, inhibit tumor growth, inactivate toxic substances and bacteria, and have anti-inflammatory and immunoprotective properties.

Therefore, the inclusion of vegetable oils in the recipes of functional foods has a preventive effect on the occurrence of diseases such as cancer, type II diabetes, etc. To improve the fatty acid composition of meat products, it is recommended to add vegetable oils in the form of emulsions to their recipes.

Therefore, the development of health food products requires the combination of raw materials of animal and plant origin rich in natural, easily accessible compounds containing macro- and microelements, which will lead to an increase in the functional properties of the product.

References.

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