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TECHNOLOGY OF MEAT AND VEGETABLE-BASED CANNED PRODUCTS FOR HERODIETARY NUTRITION

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Abstract

This scientific work describes in detail the technological aspects of canned meat and vegetable products used in the gerodietic nutrition system. The physiological characteristics of the elderly, their nutritional needs, criteria for selecting raw materials and production stages are analyzed based on scientific sources. The nutritional value, advantages and comparative characteristics of canned meat and vegetable products are presented in tables.

Keywords

gerodietic nutrition, canned products, meat technology, vegetable raw materials, nutrition of the elderly, food safety.

In the current era of increasing average life expectancy, proper organization of nutrition for the elderly is one of the urgent problems. According to scientific studies, in old age, metabolism slows down, the activity of digestive enzymes decreases, and the body's need for certain nutrients changes [1]. Therefore, there is a need to develop special - gerodietic food products for the elderly.

Gerodietic nutrition is based on easily digestible, high biological value, safe and balanced products. Canned products play an important role in this system, as they are distinguished by long-term storage, convenient consumption and hygienic reliability [2].

The requirements for gerodietic canned products are primarily related to their nutritional and biological value. Such products should have a limited amount of fat and salt, and high protein quality. Also, the products must fully meet the requirements of microbiological safety [3].

Table 1

The main requirements for gerodietic canned foods

Indicator	Requirement
Protein content	High biological value
Fat content	Low or standard
Salt content	Limited
Digestibility	Mild
Safety	Free of microorganisms

In the production of meat-based canned foods, lean or low-fat meats are selected. Beef, chicken and turkey are the main sources of protein and essential amino acids, which are important for the preservation of muscle tissue [4]. The technological process consists of the stages of sorting, cleaning, grinding, heat treatment, packaging and sterilization of raw materials. Heat treatment ensures the safety of the product and improves the digestibility of proteins.

Plant-based canned foods are made from vegetables, legumes and cereals. They are an important source of vitamins, minerals and dietary fiber. Studies show that plant fiber improves intestinal function and reduces the risk of cardiovascular diseases [5].

Table 2

Comparative description of meat and plant-based canned foods

Index	Meat-based	Plant-based
Protein	High	Medium
Vitamins	Group B	A, C, E
Dietary fiber	Low	High
Digestibility	Average	Light
Energy value	high	Low

Main research areas:

1. Meat-vegetable canned foods:

• Use of vegetable proteins (soybean, chickpea) to partially replace meat, reduce cost and increase nutritional value (fiber content).

• Development of recipes with a balance of amino acids similar to meat.

2. Composition optimization:

• Reducing the amount of saturated fats and cholesterol in canned meat, using vegetable oils instead.

• Adding vitamins (group B, D, C) and minerals (calcium, iron), which are often deficient in the elderly.

• Introduction of prebiotics and probiotics to improve intestinal microflora.

3. Processing technologies:

• Use of hydrothermal treatment and microwave drying methods to reduce energy consumption and preserve vitamins.

• Use of high pressure technology (HPP) to increase product safety and maintain freshness.

• Development of fermentation methods to improve digestibility and taste.

4. Texture and organoleptic properties:

• Research on creating a soft, non-chewable (easy to chew) structure for pâtés, meat purees and rolls.

• Development of “clean label” (artificially additive-free) products and natural colors and flavors.

Canned food production

Canned food is one of the most common products on store shelves. Everyone knows about their nutritional value and long shelf life, but few people think about how they are produced.

Beef, mutton, pork, poultry, offal and blood are used as raw materials for canned food. Canned food is also produced from sausage, bacon, sausage, beef, pork, ham and sausage minced meat. In addition, canned meat and vegetable-based canned food are also prepared.

The combined use of canned meat and vegetable-based canned food increases the effectiveness of gerodietic nutrition. According to experts, balanced consumption of these products in the diet provides the elderly with the necessary nutrients.

Conclusion: The conducted analyzes show that canned meat and vegetable-based products intended for gerodietic nutrition are important in maintaining the health of the elderly. These products serve to meet the age-related needs of the elderly.

Canned meat is a source of high biological value proteins and helps maintain muscle mass. Canned vegetable-based foods enrich the body with vitamins, minerals and dietary fiber. Proper organization of their technology ensures the nutritional value and safety of the products. Also, gerodietic canned food is distinguished by its long-term storage and convenient consumption. This allows them to be widely introduced as a practical and effective food product for the elderly. In the future, the introduction of innovative technologies and expansion of product ranges in this area is an urgent task.

REFERENCES:

1) Ismoilov R. Ovqatlanish fiziologiyasi. – Toshkent: Fan, 2020.
2) Karimov A. Oziq-ovqat mahsulotlari texnologiyasi. – Toshkent, 2019.
3) Normatov B. Gerodietik ovqatlanish asoslari. – Toshkent, 2021.
4) Fellows P. Food Processing Technology. – Woodhead Publishing, 2017.
5) FAO/WHO. Nutrition for Older Persons. – Rome, 2018.
6) Gibson R. Principles of Nutritional Assessment. – Oxford University Press, 2016.