

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
ОДЕСЬКИЙ НАЦІОНАЛЬНИЙ ТЕХНОЛОГІЧНИЙ
УНІВЕРСИТЕТ**



**ЗБІРНИК ТЕЗ ДОПОВІДЕЙ
83 НАУКОВОЇ КОНФЕРЕНЦІЇ
ВИКЛАДАЧІВ УНІВЕРСИТЕТУ**

Одеса 2023

Наукове видання

Збірник тез доповідей 83 наукової конференції викладачів університету
25 – 28 квітня 2023 р.

Матеріали, занесені до збірника, друкуються за авторськими оригіналами.
За достовірність інформації відповідає автор публікації

Рекомендовано до друку та розповсюдження в мережі Internet Вченою радою
Одеського національного технологічного університету,
протокол № 13 від 16.05.2023 р.

Під загальною редакцією Заслуженого діяча науки і техніки України,
Лауреата Державної премії України в галузі науки і техніки,
д-ра техн. наук, професора Б.В. Єгорова

Укладач Т.Л. Дьяченко

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Хобін В.А., д.т.н., професор

Хмельнюк М.Г., д.т.н., професор

There is no smell of overripe preserves. Behind the light aroma of citrus, you can hear the smell of fish and seafood. The color of the hydrolyzate did not change, but became more cloudy. The consistency of the hydrolyzate became more viscous. It was decided to use citrus pectin to modify the aroma of the hydrolyzate.

UDC 637.521.47 : 635.65

COMBINED MEAT AND PLANT SEMI-FINISHED PRODUCTS

**Azarova N.G., Ph.D., associate professor, Patyukov S.D., Ph.D., associate professor,
Fugol A.G., student, Nesterenko R.O., student
Odesa National University of Technology, Odesa**

Healthy nutrition is of great importance for the human body. It ensures mental and physical development, the formation of immunity and adaptive reserves of the body. Modern humanity is under the influence of many factors: the rhythm of modern life, stressful situations, complex environmental conditions, etc. As a result, according to various authors, the number of healthy people is decreasing. One of the reasons for this dynamic is their diet, including insufficient consumption of meat products, which is explained by their high cost. Therefore, the work on expanding the range of meat-based products, which will be related to healthy food and will be available for human consumption, is urgent.

Rabbit meat in the food industry has not found wide industrial use, which is due to the specifics of rabbit breeding and processing. Therefore, products using rabbit meat have a limited range that needs to be expanded.

Rabbit meat is characterized by a significant amount of complete protein (21.5 %), while the amount of collagen and elastin, which are difficult to digest, is small. Rabbit meat protein has 19 essential amino acids. The chemical composition of rabbit meat depends on their age, so in the meat of young rabbits, the amount of protein is (15-19) %, fat (5-6) %, minerals (1-1.1) %, in adult rabbits these indicators are higher. Rabbit fat is rich in polyunsaturated fatty acids, has healing properties and is well absorbed. Rabbit meat has macro- and microelements (potassium, phosphorus, calcium, zinc, and others), it is rich in vitamins PP, C, E, group B, and others. Due to its chemical composition, rabbit meat has useful qualities and is absorbed by the human body by 90 %. Therefore, it is classified as dietary and recommended for a healthy diet.

In the field of improving the nutrition structure, trends are developing that are aimed at improving the consumer properties of food products. Proteins play an important role in this, as they are the main component of the cells of all organs and tissues of the body. At the same time, the ratio of proteins of animal and vegetable origin, which is recommended, should be 55 : 45 %, respectively.

Beans were chosen as a raw material with a high content of vegetable proteins for research. Beans belong to the legume family. It is used for cooking and canning. Bean powder (BP) is obtained by crushing white beans followed by sieving through a sieve with holes up to 0.5 mm in size. It is a loose mass of white color with a grayish tint, with a slight characteristic smell of beans, with a mass fraction of moisture of 12.7 % and protein substances – 20.2 %.

Meat raw material – rabbit meat and vegetable raw material – bean powder were used for research. Chopped semi-finished products from rabbit meat, which are in great demand among the population, were chosen as the object of research. Based on the data on the chemical composition of food products, it was established that in chopped semi-finished products, namely rabbit cutlets, the amount of proteins of animal origin significantly outweighs the amount of vegetable proteins, which does not correspond to the recommended ratio. Based on this, research was conducted to establish

the possibility of enriching semi-finished products with proteins of vegetable origin without practically reducing the organoleptic indicators.

The influence of BPP on the technological properties of minced meat systems was carried out on model samples, which used rabbit meat, which was chopped to 2-3 mm. In addition to the control sample, 5 % of bean powder was added in step 1. After mixing, the samples were kept for 20 minutes until the moisture was distributed throughout the volume of the minced meat. Then, the change in the mass fraction of moisture, water-holding capacity, ultimate shear stress, change in pH and the amount of losses during heat treatment were determined in the samples. Studies have shown that the addition of BP to mincemeat from rabbit meat leads to a decrease in moisture in the samples and thickening of the consistency, to an increase in water-holding capacity and a decrease in mass loss during heat treatment. The analysis of research data showed that bean powder improves the functional and technological properties of minced meat systems. To determine the rational amount of BP, which can replace bread in minced meat of chopped semi-finished products from rabbit meat, was determined by organoleptic indicators.

Minced meat for chopped semi-finished products was made in the following sequence: first, minced meat was dosed into the minced meat mixer, then hydrated bean powder (50 % of the total amount of water according to the recipe was used) and mixed for 2 minutes. Then all the components according to the recipe were added, the second part of water and mixed for another 2 minutes until the components were completely distributed over the volume of minced meat. The minced meat of the test samples had a higher viscosity and density in relation to the control, therefore, to compare the consistency, water was added to the test samples. The consistency of minced meat was controlled by the values of ultimate shear stress. Heat treatment of the samples was carried out at the same temperature parameters.

Organoleptic parameters (appearance, color, smell, consistency, taste) and losses during heat treatment were determined in the finished samples. It was noted that test samples of semi-finished products made from rabbit meat practically did not differ from control samples when up to 30% of bread was replaced with bean powder. At the same time, the sliced semi-finished products had a lighter color on the cut and were juicier. Due to the reduction of losses during heat treatment, the yield of the test samples increased by 1.8 % in relation to the control samples.

Based on the conducted research, a recipe for chopped semi-finished products for healthy diet was developed.

UDC [639.4:641.3]:577.152.3:613.292

USE OF HYDROBIONTS DEEP PROCESSING PRODUCTS FOR FLOUR BAKERY PROPERTIES REGULATING

**Palamarchuk A.S., Ph.D., associate professor, Solonytska I.V., Ph.D., associate professor,
Patyukov S.D., Ph.D., associate professor, Fugol V.G., student
Odesa National University of Technology, Odesa**

The diet of a modern person, sufficient to cover energy costs, cannot provide the FAO / WHO recommended physiological norms for the consumption of essential nutrients.

The problem of malnutrition is international. In human nutrition of the third millennium, the constant use of functional foods is necessary.

The disadvantages of flour include: low content and low quality of gluten (short-twisting, crumbly or tearing in layers, inelastic, overly stretchy), increased or decreased activity of amylolytic and proteolytic enzymes. One of the ways to improve the baking properties of flour is the use of baking improvers, they allow you to control the quality of the finished product and control and

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