

24. The use of dairy products in the development of recipes for chopped semi-finished products

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Introduction. Today, chopped semi-finished products are indispensable components of the diet for consumers and are available to all quintile groups of the population, therefore the production of these products is the most promising sector of the meat industry and occupies a significant share of the domestic market of meat products. The issue of quality and safety of this segment of the food market is especially important.

The main problems that arise in the process of production and sale of chilled semi-finished products are the use of inexpensive raw materials, which leads to the production of finished products of low consumer quality, the problem of insufficiently long storage and sale of products. Therefore, taking into account global social trends towards the quality and safety of food products, the Ukrainian meat industry is reorienting itself to a new level of understanding of food products. One of the main directions of development of the modern meat industry is the production of ecological products with a minimum content of synthetic food additives or without them. To a large extent, this also applies to cut semi-finished products, because their volumes make up 6–14% of the existing assortment of meat products and 50% of the total volume of production of meat semi-finished products.

The results. The basis of the production of chopped semi-finished products is the creation of minced meat, which is a polydisperse physico-chemical, biochemical and thermodynamically unstable system. Its composition includes meat and other components that have functional properties and high biological value.

Changes in organoleptic and physico-chemical indicators of chopped semi-finished products using milk proteins were studied in the scientific work. The value of milk is due to the presence in its composition of the phosphorus-containing protein casein and fats that are easily absorbed by the body. On average, 100 ml of milk contains 3.2 g of protein. Of them, 80-87% are casein, 10-12% albumin and 3-6% globulin. Milk is also a source of minerals (potassium, calcium, phosphorus, sodium, magnesium), trace elements (copper, manganese, iodine, zinc, etc.) and vitamins necessary for the body. Dry milk protein concentrates stabilize minced meat and compact the structure of products. They activate meat proteins, increase their moisture-binding capacity, allowing to reduce losses during heat treatment, increasing elasticity and stabilizing the consistency of meat products during production and storage. To maximize the moisture-binding capacity of meat, the recommended dose of adding dry milk proteins is 0.1...1.0%. Dry whey helps to improve the consistency, increases the viscosity of minced meat, prevents the release of fat from the emulsion, and improves the color of finished meat products.

Conclusions. Therefore, the use of milk protein concentrates in the production of chopped semi-finished products will improve the organoleptic characteristics of meat products and increase the biological value of the product.

Literature.

Гашук О.І., Москалюк О.С., Головачко В. Розроблення рецептури м'ясного паштету для спеціального харчування, Наукові проблеми харчових технологій та промислової біотехнології в контексті Євроінтеграції: Програма та тези матеріалів ІХ-ї Міжн. Н-т, 09-10. 11. 2021 р., м. Київ, НУХТ, 2021 р., с.204.