

## **16. IMPROVEMENT OF THE TECHNOLOGY OF MEAT PRODUCTS USING CALCIUM ALGINATE GELS**

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Nowadays, improving of competitiveness of food products is connected with the improvement of consumer characteristics, by extending the range, by developing new technologies based on modern scientific and technological achievements.

One of the problems that humanity must solve today is improvement of the quality of food in general. The important task in this direction is to provide the population of Ukraine by foods that have a balanced chemical composition and specified physiological properties of products and they should facilitate correction of diet.

The trend in the last decade, researches show an increase in the volume of production of meat products with different supplements of plant and animal origin.

The sodium alginate is currently widely used in food industry as an emulsifier, stabilizer, thickener and gelling ingredient. Its many uses are due to its special properties: its ability to easily thicken and quickly become viscous once it is dissolved in cold or hot water. Another beneficial property is that it forms a gel once in contact with calcium. Unlike agar-agar gel, sodium alginate can thicken even when dissolved in a cold solution.

Sodium alginate is a compound of the sodium salt of alginic acid. It is a whole food extracted from the cell walls of brown algae. Sodium alginate is a polymer composed of a repeating chain of the carbohydrates D-mannuronic and L-guluronic acid.

Thus, researches are relevant and they devoted to the improvement of the meat minced food products using calcium alginate gels with maximum preservation of food and biological value of raw materials, with specified functional and technological properties.

During the investigation it was established regularities of influence of calcium alginate gels on physicochemical, functional and technological, structural and mechanical and microbiological properties, on periods of storage of the meat minced food products and opportunities to improve their quality by indicators moisture and fat-containing capacity and by rheological properties that provide stable organoleptic and technological performance. Carried out researches allowed us to develop new formulation of the meat minced food products and improve their technology.

Summarizing the above, we can conclude that the feasibility of using calcium alginate gels in the production of the meat minced food products with high quality performance was substantiated and experimentally verified for the first time.