

STUDY OF MORPHOLOGICAL FEATURES OF PROTEIN AND ANIMAL PROTEINS OF PROTEINS USED IN MEAT PRODUCTS PRODUCTION

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In the conditions of a shortage of high quality domestic meat raw materials, manufacturers increasingly use nutritional supplements, both protein and carbohydrate, which give the product the necessary technological properties, increase the yield of finished products by 115 - 200% and allow to obtain illegal profits. The modern market of food additives for the meat industry offers a wide range of ready-made complex dry loose mixes for the preparation of protein-fat emulsions, for the injection of semolina semi-finished products, both domestic and foreign, containing in its composition animal and vegetable protein, starches, hydrocolloids, emulsifiers, phosphates and others. Such additives have a high ability to hydrate. In some cases, manufacturers use them for the production of artificial sebum from various types of natural fats, while using all the edible fats remaining in the process of processing in the enterprise.

Animal protein supplements are made mainly of pig skin and veins, pork trimmings, beef veins, blood plasma, whey and eggs. Vegetable protein supplements are products of soy processing, such as soybean isolate, texture and concentrate. The presence and origin of protein food additives, their differentiation and morphology can be identified by conducting microstructural studies.

This article presents the results of microstructural studies of protein food additives of animal and plant origin. Their morphological, morphometric and tinctorial features were studied, differentiation was carried out for the purpose of subsequent identification in the finished meat products.

For the study, model forcemeat systems were manufactured into which the bulk food additives were added in accordance with the manufacturer's instructions; histological preparations were made and their identification was carried out.

Due to the received data on the morphological structure of plant and animal additives, it is possible to formulate the main criteria for their identification as a part of the finished meat products: this form of particles, especially their location in minced meat, the size and tincture properties. For the differentiation of soy protein components, an additional parameter is the presence in the preparation of the fragments of the soy bean shell, the specific structure of the particles, the presence of cellulose

membrane in the plant cells. The preparations of animal protein in general form are a protein preparation based on the fibers of animal connective tissue and its intercellular fibrous substance different degree of hydration.

Keywords: MEAT FOODS, FOOD ADDITIONS, MORPHOLOGY, ANIMAL ALBUMEN, SOY-BEAN ALBUMEN.