**ОДЕСЬКА НАЦІОНАЛЬНА АКАДЕМІЯ
ХАРЧОВИХ ТЕХНОЛОГІЙ**

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РОЗДІЛ 4

СУЧАСНІ ТЕНДЕНЦІЇ В ТЕХНОЛОГІЇ ПИТНОЇ ВОДИ ТА ПЕРЕРОБЦІ М'ЯСА, МОЛОКА Й МОРЕПРОДУКТІВ

BUTTERMILK AS A SECONDARYDAIRY MILK

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Dairy products – these are products in which the cost of up to 80-85% is the cost of raw materials and basic materials. Therefore, the full use of all constituents of milk within a single enterprise is the most expedient. The waste-free production is a production where the waste of one technological process is used as raw material in another, which ensures the most complete utilization of all valuable components, without allowing their negative impact on the environment. It can take place in one enterprise, or in different one typical enterprises. High specific gravity and a large amount of secondary raw materials, its inefficient use negatively affects environmental safety, contaminating the environment.

Secondary dairy raw materials include – skim milk, casein, buttermilk, whey, and others. A considerable place is occupied by oil shale. It is its nutritional properties much more valuable than non-fat milk.

Sketches (oilseed) is a product of milk processing, which is a plasma of cream obtained during the processing of cream on butter. Depending on the type of oil, the oil can be obtained in the production of both sweet – cream and sour - butter, the method of whipping or the conversion of high – fat cream [1].

The chemical composition of the lubricant is not constant and varies depending on the type of oil, the conditions of its receipt, the mass fraction of the cream, their acidity and other factors.

Dairy fat in buttermilk is a triglyceride – it has a high degree of dispersion, which facilitates the easier emulsification and fatty absorption of bile acids (cholera, glycolic). Assimilation of milk fat grease reaches 95-96%. Phosphatides – lecithin and sterol – cholesterol have been detected in oily oil. Phosphatides transferring oxygen to the human body promote the release of bile, oxidation and absorption of fatty acids, participate in the processes of oxidation, respiration and enhance the catalytic activity of enzymes. Lecithin, which is converted into oil in the manufacture of butter from cream, is an ester of glycerol, phosphoric acid, choline and fatty acids (stearic and oleic).

Cholesterol, which is part of lecithin, has the ability to bind toxic substances that enter the human body or are formed therein and disinfect them. The composition of the lubricant is up to 40 mg/% cholesterol.

In the mineral composition of 21 elements, of great importance are calcium, sulfur, phosphorus, potassium, chlorine, copper. The role of these substances in the human body is significant. So calcium is involved in the formation of bones, phosphorus nourishes the nervous system, copper catalyzes the oxidation-reducing processes and takes part in the metabolism, cobalt is part of the vitamin B12.

Oily is a large amount of biologically active substances – phospholipids containing 22 fatty acids such as palmitic, stearic, oleinic and linolenic, and the amount of phospholipids in oil seeds up to 77%. Vitamins in oilseed are both fat soluble and water soluble [2].

When taking 100 grams of butter, the daily rate of organic acids is 50%. Phosphorus by 11%, calcium – 12%, cobalt – 8%, vitamin B12 – 14%, B2 – 8,5%, H – 7%.

From the chemical composition of the above, it is evident that it is biologically more valuable than non-fat milk and whey.

Mash is considered an ideal product for people with problems of the gastrointestinal tract, in the presence of cardiovascular diseases, urinary tract, nervous system, as it contrib-

utes to the restoration of water-alkaline balance, intestinal microflora, normalizes lipid metabolism.

Dry and condensed swabs are used in the production of soft and fat-free cheeses, diet cheese and various dairy products in the confectionery and bakery industries. Skin and their acidophilin and acidophilic milk prepared from them are used for feeding young animals of farm animals.

Scientific adviser – Associate Professor, c.t.s., Semenova O.I.

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BIOTECHNOLOGY IN MEAT PRODUCTION

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Biotechnology in the food industry is oriented towards the creation of new types of food products, additives and improving the quality of food products. Biotechnology allows solving the problem of the consumption of the eco-friendly food products.

At the moment, in order to intensify the technological processes, improve the opagonoleptic indicators of products, increase the output of the finished product by increasing the multicomponent brine when syringing meat raw materials is used. All the components affect the diffuse and biochemical processes occurring in meat raw materials. As a result of the selection of components with abrine with action, it is possible to obtain a product of specified quality.

As all components of the brine interact between themselves, this can lead to an uncontrolled ampoule process, so you should pay attention to the development of technologies and recipes for multicomponent brines, taking into account the properties of raw materials and non-organic ingredients.

With the use of various brines and microorganisms (bifidobacteria and propionic acid bacteria), having positive properties, it is important to consider the possibility of introducing into the composition of bacterial prepapatic strains that determine the healthy biocenose in the human body. The last stimulates the processes of fermentation in the gastrointestinal tract, the level of digestibility of nutrients. Today, the most prospective is the emergence of bacterial preparation with the use of representatives of the normal human microflora.

Human microflora is represented by lactobacilli, bifidobacteria, streptococcus, staphylococcus, and others. Bifidobacteria dominates in the human microbiocenosis, accounting for 95% of the entire microflora. Bifidoflora is given a leading role in the normalization of intestinal microbiocenosis, improvement of the processes of absorption and hydrolysis of fats, protein and mineral metabolism, and support of non-specific resistance of the organism.

Nanotechnology has now found its application in the production of meat products in the creation of intelligent packaging, new forms of food additives.

Наукове видання

Збірник наукових праць молодих учених, аспірантів та студентів

Том 1

Головний редактор, д-р техн. наук, проф. Б.В. Єгоров
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