



MILK PROCESSING TECHNOLOGY

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World Dairy Day is an international day established by the United Nations Food and Agriculture Organization (FAO) to recognize the importance of milk as a global food. <sup>[1]</sup> It has been celebrated annually on June 1 since 2001. <sup>[2]</sup> This day is meant to allow attention to activities related to the dairy industry. <sup>[2]</sup> The day allows us to focus on milk and raise awareness of healthy eating, responsible food production, as well as the role of dairy products in supporting lives and communities. This is confirmed by FAO data, the lives of more than a billion people are supported by the dairy industry, and dairy products are consumed by more than six billion people worldwide. <sup>[3]</sup>

Bridge	Level changes for 2013/2007	Country	Milk consumption 2013(per kg/per capita)	Milk consumption 2007(per kg/per capita)
67	14	Uzbekistan	130.81	143.36

<sup>[3]</sup> The production of dairy raw materials requires a lot of money and labor for the state, therefore it is recommended to use these products more fully and efficiently in the process of processing. One of the problems in the domestic dairy industry is whey processing. In the manufacture of cottage cheese, cottage cheese, casein and other dairy products, its secondary product is extracted from whey. It contains 50% of milk, up to 200 different mixtures, milk fat, soluble nitrogen compounds and mineral salts, lactose, as well as vitamins, enzymes, organic acids. In addition to nutritional value, whey and products derived from it are parasitic and therapeutic. These beverages contain almost all complexes of biological substances with high quality and good organoleptic properties in whey content. Milk is an important part of the human diet. It contains elements that are necessary for human health. Dairy raw materials are used in the production of sweets, candy products and other products. Whey is used in production. <sup>[4]</sup> The standard set of products includes pasteurized milk, kefir, sour cream, fermented cooked milk, cottage cheese and cheese. In workshops equipped with a separator, products with different fat content of milk are produced. Full processing of milk allows you to distinguish fractions of whey proteins. After separation, the whey is purified from the cheese particles, the fat content is reduced to 0.05% and heat-treated.

*1-table*

*Chemical composition of milk whey and milk whey powder*

Content	milk serum		whey powder	
	sweet	sour	sweet	sour
Amount of dry	6,4	6,5	96,0	96,0



matter, %				
Suv, %	93,7	93,5	3,6	4,0
Lipids, %	0,5	0,1	0,8	0,6
Protein, %	0,8	0,8	13,1	12,5
Lactose, %	4,9	4,9	75	67,4
Amount of ash, %	0,5	0,8	7,3	11,8
Acidate, %	0,1	0,4	0,2	4,2

Analyzing the composition of milk whey, it can be concluded that it contains very valuable natural components, indicating the need to improve their extraction technologies.

There are the following types of whey processing:

Biological (enrichment with useful substances, decay of milk proteins, etc.).

Thermal (pasteurization, cooling, etc.).

Santrifugalash (separation).

Membranalash (giperfiltratsiya, elektrodializ).

Conservation (processing for long-term storage).

When separating the whey, a concentrate is taken, from which the cheese cream is prepared. This product is used to normalize mixtures in the technology of production of ice cream, processed cheese and other products. Cottage cheese whey is used to produce albumin-cottage cheese products. Albumin cottage cheese is a kind of sports nutrition, with a high protein content. For private farmers, they brew mini-equipment that does not require complex maintenance (butter, cream sprinklers, etc.) and allows processing milk at home. The necessary stage of production is pasteurization. By placing the milk container in heated water, the raw material can be pasteurized for a long time (20-30 minutes at a temperature of 63 ° C). The process does not affect the taste and composition of the product. All stages of the processing of milk raw materials (cooling, pasteurization, packaging, etc.) are carried out in mini-workshops - in factories that automatically process small volumes. The production of dairy products should be carried out in accordance with sanitary rules. Government agencies tightly control the work of dairy plants and dairy producers. The use of processing technologies allows farmers to create high-value, high-quality and profitable products. Analysis of the resources, including and production resources available in the enterprise, is one of the elements of the implementation of this system in order to ensure its quality and competitiveness in the implementation of a quality management system for the production of dairy products. In order to form quality indicators and safety indicators of dairy products, it is necessary to carry out the principles of risk analysis and critical checkpoints. At the same time, the state of production equipment and their ability to work, its novelty, its technical perfection, and so on are important.

#### REFERENCE:

1. ["Today is World Milk Day."](#) It was taken on June 2, 2015.
2. [Go up: a b c "World Milk Day: June 1, 2015"](#). Taken on June 2, 2015.



3. ["Rotterdam's Dairy Declaration"](#). *www.fao.org*. Obtained 2018-08-2.
4. Kuznetsov, V.V. Manual for Milk Production Technology. Technology and recipes.T.
5. ["Countries by milk consumption per capita"](#)