

ROLE OF NON-TRADITIONAL DAIRY PRODUCTS

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ABSTRACT

The article describes the properties of camel milk. The features of the composition of camel milk have been studied. Recommendations for inclusion in the daily diet are offered.

Keywords: camel milk, healthy diet, diabetes.

INTRODUCTION

In the Southern Aral Sea region, livestock farming is developed for use in the production of dairy products. Modern technologies make it possible to obtain high-quality and healthy products. These products contain all the biological substances necessary for the body, increase the effectiveness of treatment, and can also be used for preventive purposes.

Over the past few years, much attention has been paid to the rational nutrition of the population. This is due to the improvement of the quality, biological value and taste of food products, as well as the expansion of the range and production of products that are suitable for dietary nutrition. Currently, nutrition is one of the most important factors that affects physical and intellectual development, the body's ability to resist negative influences, its ability to work, life expectancy, etc.

As a result, milk and dairy products are of great importance in human nutrition. First of all, it should be noted that they contain a large amount of calcium and phosphorus, which play an important role in human life. Due to the fact that both elements are in milk in optimal proportions, they receive a fairly high digestibility. According to research, about 80% of a person's daily calcium requirement is met by milk and dairy products. Milk fat is a valuable product because it is better absorbed in the human body than animal fats. The absorption rate of milk fat is 97-99%. Milk from different animals is similar in composition, but they differ in quantitative ratio and their valuable features. In areas where it is difficult to breed cultural cattle breeds, camels are the most dairy animals. They produce milk using the natural pasture vegetation of the desert and semi-desert zones of our country. Camel milk has a longer bactericidal phase than cow's milk. Cooled to 100C, it does not sour for 72 hours. The possibilities of selecting camels for milk productivity are extremely high, and breeding work in the direction of increasing milk production can give good results and open up new ways of developing camel breeding. In recent years, the number of camels in the region has increased, which makes it possible to develop a technological line for the production of camel milk and shubat.

Whole camel milk is thick and viscous, has low transparency and is bright white. Locals usually drink whole camel milk with tea, using it as cream. Camel milk is useful for people suffering from allergies, diabetes, and digestive disorders. Fresh and warm camel milk has a strong smell and slightly salty taste, is opaque white. You can also detect a slight sweetness. The taste of the drink largely depends on the camel's diet and the amount of water it has drunk

beforehand. When people try camel milk for the first time, not everyone can digest it, so there is a chance of diarrhea for 1-2 days. This is normal, since the gastrointestinal tract is cleansed. As soon as the body gets used to the new product, the side effects will disappear. The drink is slightly saltier in taste, contains 3 times more vitamin C and 10 times more iron than cow's milk. It has less fat and cholesterol, it is a good source of protein and unsaturated fatty acids. Also present: vitamins A and B-complex, calcium and potassium, iron and copper, magnesium, manganese, zinc and phosphorus. Camel milk is easily digestible and is a natural probiotic, that is, it supports the growth of beneficial bacteria in the intestines. In camel milk, the dry matter content varies, depending on the feed and habitat, from 11.6-12.5% to 15.2-16.4%, with an average protein content of 3.2-3.8%, fat 3.9-6.0%, sugar - 3.4-5.0%, ash - 0.7-0.8% with a density of 1.027-1.032. Information on the vitamin composition of camel milk provided by researchers shows that 1 liter of Bactrian camel milk contains on average 0.3-0.5 mg of vitamin A, 57-79 mg of vitamin C, 0.9-1.8 mg of vitamin B1, 0.7-1.7 mg of vitamin B2. At the same time, the content of vitamin C in camel milk is affected by the diet and individual characteristics of the animals. It is known that when camels are fed dry camel thorn, their milk contains 75.43 mg / l of vitamin C, and when grazing on spring pastures, its content increases to 97.07 mg / l. 1 liter of dromedary milk contains (mg) vitamin A-0.343-0.487, vitamin B1-0.95-1.86, vitamin B2-0.66-1.75, vitamin C-58.2. The average fat content of dromedary milk is 4.5%, Bactrian milk is 5.4%.

The duration of lactation varies among different camel species. In dromedaries it is 500-560 days, in Bactrians - 520-540 days. The milk yield during the first lactation is 2800-3500 kg for dromedaries, during the second it increases to 3400-5300 kg. The milk yield of Bactrians is lower and averages 770-1700 kg. This milk yield increases to 4-5 lactations. Lactation is most intense during the first 6-7 months. During this period, half of the milk yield for the entire lactation is obtained. The maximum daily milk yield for dromedaries reaches 18-20 kg, for Bactrians - 3-7 kg with 5-6% fat. Fundamental studies of camel milk are conducted in Egypt, the United Arab Emirates, and Israel. However, in the Arab countries, Egypt, and Israel, one-humped camels - dromedaries - are common, the composition of whose milk differs significantly from the milk of two-humped Bactrians.

The milk of camels, cows, buffalos, sheep, goats, mares, donkeys, and women was analyzed for the composition of amino acids and the concentration of immune factors such as lysozyme, lactoferrin, and immunoglobulin. The highest concentration of immunoglobulin is in camel milk.

Basically, camel milk is used to prepare a pleasant-tasting and very nutritious fermented milk drink - shubat. Shubat is a drink made from camel milk, widely used in Kazakh cooking. In terms of its biological properties, shubat is not only a nutritious and tasty product, but also a source of vitamins A, B1, B2, C. Thus, in terms of the content of vitamins B1, B2, C, camel milk is many times superior to cow's milk. One liter of shubat can satisfy the daily need of the human body for vitamin C, thiamine and riboflavin. Shubat contains significantly more fat, protein, some minerals, and vitamins than kefir. The quality of shubat largely depends on the quality of the starter, the best is a good strong shubat. Shubat is prepared in wineskins, clay vessels and small barrels with a capacity of up to 30 liters. Sour camel milk or previously prepared shubat are used as a starter for preparing shubat. Shubat is divided into weak - it

ripens within 24 hours, medium - two days, strong - three days. Arabs consider it an elixir of eternal youth, an aphrodisiac that excites desire, food and medicine that has bactericidal properties and helps with asthma, tuberculosis, liver inflammation, diabetes and psoriasis. They say it cools in the summer and warms in the winter. The drink, like camel milk itself, contains calcium, copper, iron, magnesium, soda, zinc, phosphorus and other elements. There are three times more vitamins C and D than in cow's milk. And there is more sugar lactose, which provides nutrition to the brain and nervous system.

The ability to consume this valuable drink on a regular basis replenishes a wide range of medical and healing properties. In the south of Russia, it is traditionally used to treat tuberculosis and other lung diseases, and in India it is used for dropsy, jaundice and anemia.

1. For diabetes - camel milk contains a protein that is close to insulin at the molecular level, which is important for people suffering from diabetes. A study conducted in 2005 in India confirmed that drinking the drink by patients with type I diabetes helps to reduce the dose of insulin needed to maintain blood sugar levels at the proper level. For a long-term effect, doctors recommend drinking 500 ml of fresh camel milk per day.

2. For skin diseases - many of the beneficial properties of camel milk for the skin are associated with the biologically active proteins in its composition. When applied externally, the product softens, nourishes and moisturizes the skin, makes it elastic, soothes irritated, inflamed and flaky skin, relieves itching, due to its strong antibacterial properties fights acne, treats eczema and psoriasis.

REFERENCES

1. Сыман К.Ж. «Белки, аминокислоты верблюжьего молока и сухой саумал»: Монография/ К.Ж. Сыман - Алматы, Нур-Принт, 2018. 106 с.
2. Сапарова Г.Б. Использование в рационе питания экологически чистых продуктов из местного сырья Южного Приаралья. Республика илмий-амалий конеренцияси. Материаллари. II булим 20 май 2020 йил. Нукус Илим - 2020
3. Saparova G.B. Study of the effect of natural fruit fillers on the taste of fermented dairy beverages. Journal of Pharmaceutical Negative Results ; Volume 13 ; Special Issue 6 ; 2022DOI: 10.47750/pnr.2022.13.S06.284
4. Saparova G.B., Urinbayev J. The role of non-traditional dairy products in the diet of the population of Karakalpakstan. In Volume 9, Issue 7, of JournalNX- A Multidisciplinary Peer Reviewed Journal, July, 2023, Published by Novateur Publication, M.S. India. JournalNX ISSN: 2581 – 4230.
5. Saparova G.B., Arpadinova E. Goat milk, its physio-chemical properties and role in human health improvement. GALAXY INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL (GIIRJ) ISSN (E): 2347-6915 Vol. 12, Issue 5 May (2024).