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GOAT MILK, ITS PHYSIO-CHEMICAL PROPERTIES AND ROLE IN HUMAN HEALTH IMPROVEMENT

Saparova G. B.
Arpadinova E.
Karakalpak Institute of Agriculture and Agrotechnology, Nukus

ABSTRACT

The article describes the use of dairy products since ancient times. Due to the negative impact of the environment on the human body, which has led to its significant change, there is a need to use milk and dairy products to maintain immunity. Milk is a complex biological fluid that contains a significant amount of useful components

The paper presents a comparative analysis of cow's and goat's milk. Goat's milk has healing properties and supports the human intestinal microflora.

Keywords: milk, microflora, organism, fermented milk products, cow's milk, goat's milk, bacteria, minerals.

INTRODUCTION

Relevance and purpose of the study. Since ancient times, the peoples of the world have used fermented milk products, fermented with sourdough from fermented milk bacteria, not only for food, but also as a curative remedy for many diseases. In Bashkiria, Kyrgyzstan, Kazakhstan and Uzbekistan, mare's milk is used to make fermented milk drink koumiss, which is used as a treatment for tuberculosis. In Turkmenistan, “chal” is made from camel milk, and kefir is made in the North Caucasus. For 2,500 years, Armenians used yogurt, and later “matsun”, as a remedy for gastrointestinal diseases and poisoning of humans and animals, for sunstroke, burns, and ulcers. (7)

The role of the normal microbial flora of the human gut in maintaining its health is well known, as it takes part in the metabolism, synthesis of vitamins and a number of biologically active compounds, and has antagonistic activity against pathogenic and opportunistic bacteria, thereby performing a protective function in the body. The role of the intestinal microbial flora in the formation of the body's immune-biological reactivity is very important.

Currently, dysbacteriosis affects the vast majority of the world's population. This is a consequence modern eating habitse, lifestyle, and uncontrolled use of antibiotics.

Antibacterial therapy and poor nutrition are not the only reasons for the development of dysbacteriosis, they can also be:

- previous intestinal infections (salmonellosis, dysentery),
- hypoacid gastritis, chronic enteritis and colitis, chronic pancreatitis,
- liver and gallbladder diseases, kidney diseases,
- malignant neoplasms, conditions after gastric resection,
- radiation and chemotherapy,
- early artificial feeding, late application of the child to the mother's breast,
- active hormone therapy.

Various diseases of the gastrointestinal tract are widespread in our region, especially among adolescents and students who do not receive proper nutrition due to their lifestyle conditions. Students often go to doctors with various symptoms of gastrointestinal disorders: constipation, unstable stools, a feeling of heaviness in the epigastric region, nausea, vomiting, etc. Along with traditional methods of treatment, the doctor also recommends a healthy diet.

The insufficient presence of milk, fermented milk products, and vegetable fiber in human diets deprives the intestinal microflora of a nutrient medium. Consuming foods containing preservatives and toxic substances suppresses normal flora. The diet should provide and compensate patients with a chronic disorder of the gastrointestinal tract with high energy and physical costs of the body in conditions of increasing psychological and emotional stress in modern schools.

Milk and dairy products occupy an important place in the diet of a person, especially a growing body. Milk is a complex biological fluid that contains a significant amount of useful components necessary for human life. One of the most distinctive and important properties of milk as a food product is its high biological value and digestibility, due to the presence of full-fledged proteins, milk fat, minerals, trace elements and vitamins. Milk and dairy products are digested by 95-98%. Fermented dairy products, which have high dietary and therapeutic value, are of great importance for the body. Fermented milk products, in the form of fermented milk, have increased digestibility.

Along with cow's milk, the milk of other animals, including goats, is used for food. Goat's milk is similar in chemical composition and properties to cow's milk and differs only in a higher amount of protein, fat and calcium, contains little carotene, so it has a paler color. Fat balls of goat's milk are smaller than fat balls of cow's milk, which contributes to better nutrition of the human body, rich in vitamins C, A and niacin. Goat's milk has more vitamin C and minerals than cow's milk. Fresh goat's milk is a good substitute for women's milk and therefore has an indisputable value in the nutrition of children, especially during weaning. Advantages of goat's milk over cow's milk:

- milk has a milder taste;
- alternativee food for children and sick people since it is easier to digest;
- the more homogeneous fat mixture in goat's milk ensures almost complete digestibility.
- it is better tolerated by asthmatics and allergy sufferers as it has a hypoallergenic property, unlike cow's milk, goat's milk does not contain complex proteins, which are the main stimulants of allergic reactions.
- it contains more chlorine, fluorine and silicon than the milk of any other livestock. Fluoride helps prevent diabetes.
- they are naturally immune to tuberculosis, so goat's milk is used in third world countries for the treatment of tuberculosis due to the antibodies present in it.
- contains more beta-carotene (provitamin A). Beta-carotene is thought to play an important role in cancer prevention.
- does not create additional stress on the diseased liver due to the smaller size of naturally homogenized fats.

Objects and methods of research: to solve the tasks set, the following was carried out:

1.Physical and chemical parameters of goat's milk are presented (determined).

2. Organoleptic parameters of fermented goat's milk product at home were studied.

Results of the study:

The analysis of the physio-chemical properties of cow's and goat's milk was carried out in the laboratory. A comparative analysis of the physio-chemical properties of cow's and goat's milk showed the following results.

Physical and chemical composition of cow's milk and goat 's milk

#	Types of milk	NDumplings			
		Fat content (%)	SOMO (%)	Ph	T⁰
1	Cow	4.02	9.68	6.45	19
2	Goat	3.84	10.8	4.85	18

During the experiment, kefir was obtained from goat's milk, fermented at home. The product had a gentle homogeneous clot, with a pronounced sour-milk taste. The lactic acid bacteria contained in kefir support the balance of flora, which helps with digestion, and promote the proper elimination of waste. A healthy digestive tract leads to improved nutrient absorption. Thus, since one of the most important branches of state activity is to provide the population with a healthy diet through the development of animal husbandry, the development and production of food products with maximum use of the biological properties of raw materials, in this regard, it seems reasonable to use not only cow's milk, but also goat's milk in food production, taking into account its valuable hypoallergenic and biological properties. However, the production of goat's milk and products made from it is not possible due to the lack of regulatory and technical documentation and restrictions in raw materials. A necessary condition for the production of high-quality products is raw materials that meet the needs. The expediency of using products based on goat's milk in the diet of children with pathology of the gastrointestinal tract is justified by scientific data and is associated with better digestibility of the components.

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