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**ҚҰРМА ШӘРБАТЫН ҚОЛДАНА ОТЫРЫП НАН-ТОҚАШ ӨНІМДЕРІНІҢ
ТЕХНОЛОГИЯСЫН ЖАСАУ**

Аңдатпа

Авторлармен құрма шәрбатын қолдана отырып нан-тоқаш өнімдерін өндіру технологиясы әзірленді. Бұл ретте құрма шәрбатының нан-тоқаш өнімдерінің физика-химиялық көрсеткіштеріне әсері зерттелді.

Кілт сөздер: нан-тоқаш өнімдері, физика-химиялық көрсеткіштер, құрма шәрбаты.

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**DEVELOPMENT OF TECHNOLOGY OF BAKERY PRODUCTS
WITH USE OF DATE SYRUP**

Annotation

The authors developed the technology of bakery products using date syrup. The influence of date syrups physico-chemical parameters of bakery products.

Key words: bakery products, physico-chemical characteristics of date syrup.

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**INDICATORS OF SAFETY OF MARE'S MILK AND KYMYZ
PRODUCED IN LLP "SARSEBEK"**

Abstract

In this article, milk samples, organoleptic and physicochemical parameters of mares grown in peasant Sarsebek farms were studied as the main raw material.

Key words: mare's milk, kymyz, lactic acid.

Introduction

Kymyz is-a fermented milk product from mare's milk. In the early Kazakh nomadic life kymyz was a medicine for the patient, added strength for a healthy. A mare's milk contains a lot of sugar, you can notice it right after milking. All the useful elements that contain koumiss are well absorbed. The mare's milk contains high Vitamin C, so its medicinal properties are especially helpful for the treatment of tuberculosis. That is why the first resort for the treatment of tuberculosis was opened in 1858 near Samara. The founder of this place, doctor V. Tolstikov wrote: "Kymyz strengthens digestion, gives man strength, and body renewal" [2]

Speaking about kymyz, Doctor of Biological Sciences, Professor Z.S. Seitov says that this drink is known to many people from early times and its roots go to the Scythians. In the 5th century BC, the Greek historian Herodotus notes that the Scythians were preparing koumiss from

mare's milk and that they carefully preserved the secret of conservation and did not tell anyone about it[4].

All the elements necessary for the human body are available in koumiss. In addition, the mare's milk contains many vitamins. Kymyz is the only remedy for nervous diseases. After all, in koumiss, in addition to vitamin B, there are vitamins B₂, B₁₂. As is known in people with tuberculosis, changes in the metabolism of vitamins in the body have been proven. Kymyz has a profound effect on the body. It enhances the function of the cardiovascular, nervous system and other organs of the digestive tract. The effect of koumiss changes the whole organism. Physiological and biochemical processes increase, and metabolism is restored. Kymyz contains lactic acid, which promotes good digestion of proteins, fats and various sugars in food.[1]

Every year the social significance of kymyz grows. And in Kazakhstan, its products are growing every year. At the present time, the All-Union Scientific Research Institute of Horse Breeding has developed model projects for koumiss farms. This is a building complex for 100, 200, 300, 400 dairy mares and foals. [4]

To assess the compliance of natural kymyz with the current standard, in accordance with the following research methods, RKST 1004-98. According to AUST 3622-68, koumiss should be poured into a chemical glass beaker and immersed in water at a temperature of 30-35 ° C for 10 minutes. Then it should be shaken to remove carbonate from it and cool to a temperature 20 ± 2 ° C. Thus, the extracted milk and koumiss are studied. [5]

Materials and methods

The mare's milk and kymyz, obtained as a subject of research, were tested according to the following methods.

Determination of organoleptic parameters of mare's milk and kymyz

The color of kymyz is good in daylight in glass containers. Milk has a pleasant smell characteristic of different kinds of animals. The smell of koumiss is checked through the lid of the closed container. The taste of koumiss is sour. It is checked in one gulp, from the tip of the tongue to the end, then make a deep exhalation through the nose. The consistency of milk can be seen fully if poured into a glass jar.

AUST 3624-92. Milk and dairy products. Method of titration of acidity

Pour 20 ml of water into a 100-250 ml flask, and top 10 ml of mare or kymyz, then add 3 drops of phenolphthalein solution, 0.1 L of alkaline acid and titrate until 2 minutes until the solution turns pink. Then 0.1 N of the alkaline acid to be spent for titration is fattened by 10 and determine the acidity (°C).

Determination of milk parameters using *LAKTAN 1-4*. With this device, you can immediately get 5 results: milk fat, the balance of dry matter in milk, density, protein and water content in milk.

Active acidity is the concentration of free hydrogen ions in milk, which is determined by the pH value. This indicator in milk contains 6.5-6.9, with an average of 6.5.

Research results and analysis

The main raw material of the study was the mare's milk and kymyz from the farm of Sarsebek. The main task of the farm is in the conditions of sustainable agriculture the milking of mare's milk and the production of high-quality kymyz. The farm is selected by Kazakh and local poplars. To obtain mare's milk in the farm, there is the regime DDA - 2. Each mare is milked 5-6 times in two hours, and the milk size is measured and recorded on the registration page. Currently, the total number of horses on the farm Sarsebek is about 150 heads. The number of mares in it is 58 heads, and the total number of milk mares now makes 19 heads. The

organization of integrated horse breeding is fully taken into account. Milk mare since the moment of becoming a foal and as long as it has been fought in a covered stables. In winter, horses are fed in a covered stable, while spring-summer seasons are used for pasture lands.

Study of organoleptic and physico-chemical parameters of mare's milk and koumiss obtained from livestock. The following tables show the results of the study.

Table1- Organoleptic parameters of mare's milk and kymyz

№	The name of indicators	Norm		Test result		Test Method
1	Taste and smell	Mare's milk	Kymyz	Mare's milk	Kymyz	RKST 1005-98 RKST 1004-98
		Pure, sweet, fragrant and delicious	Clean, natural, does not contain substandard other flavors and smells, fermented milk, piercing	Pure, sweet, without foreign smells and flavors	Clean, natural, without foreign tastes and smell, acute	
2	Consistency	Hothouse, without precipitation and flakes	Homogeneous, with gas, foamy	Hothouse, without precipitation and flakes	Homogeneous, with gas, foamy	
3	Colour	White, bluish	Bluish shade like milk	White, bluish	Bluish shade like milk	

According to the results in the table 1, the organoleptic parameters of mare's milk and koumiss meet the requirements..There is an unusual taste of milk, characteristic of koumiss. The structure is a liquid, bubbles, gas and proteins with small bubbles.

Table 2- Quality indicators of mare's milk and kymyz, identified by LAKTAN 1-4:

№	Name	Mare's milk	Kymyz	Norm	
1	Fat %	0,74	0,73	Mare's milk	Kymyz
				1,0	1,0
2	Dry matter residue,%	8,84	8,85		
3	Water volume,%	0	0	0	0
4	Density,%	32,49	33,00	1,029	1,015-1,025
5	Protein content	3,20	3,20		1,9

According to the results of the table 2, the fat content in mare's milk was 0.74%, in kymyz - 0.73%, density was 32.49% in mare's milk 33.0%, amount of protein in mare's milk 3.20%, and in kymyz 3,20%. Common acids are associated with gases, proteins, salts of organic and inorganic acids

Table 3- Indications for acidity and active acidity of mare's milk and kymyz

№	Name	Mare's milk	Kymyz	Norm	
1	Acidity	9° C	160°C	Mare's milk	kymyz
				7°C	70-120°C
2	Active acidity	6,50(18°C)	3.40(21°C)	6,3-6,9	

According to the data given in the table 3, the acidity of the mare's milk is 9°C, and the acidity of koumiss is 160 ° C.

Conclusion

The following conclusions can be drawn from the above figures. Taste and smell, consistency and color in accordance with the organoleptic characteristics of mountains and koumiss correspond to the requirements of the standard AUST 5867-90. The proportion of fat that meets the requirements corresponds to the standard. Molasses milk was in accordance with AUST 3624-92, and the acidity of koumiss was the third koumiss acid in accordance with AUST 3624-67. Increasing the density of protein, carbohydrates and minerals in accordance with AUST 3625-84 increases the density of milk, and an increase in the content of milk fat reduces it. Increasing the density of proteins, carbohydrates and minerals according to AUST 3625-84 increases the density of milk, and its increase reduces. By the way, all indicators meet the standard requirements.

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ПОКАЗАТЕЛИ БЕЗОПАСНОСТИ КОБЫЛЬЕГО МОЛОКА И КУМЫСА ПРОИЗВОДИМОГО В ТОО "САРСЕБЕК"

Аннотация

В данной статье были исследованы органолептические и физико-химические показатели кумыса и кобыльего молока в произведенного ТОО «Сарсебек»

Ключевые слова: кобылье молока, кумыс кисломолочные.

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«СӘРСЕБЕК» ЖШС –ДЕ ӨНДІРІЛЕТІН БИЕ СҮТІ МЕН ҚЫМЫЗДЫҢ ҚАУІПСІЗДІК КӨРСЕТКІШТЕРІ

Аңдатпа

Бұл мақалада негізгі шикізат ретінде «Сарсебек» шаруа қожалығында өсірілетін, сауын биелерінің сүтімен және одан жасалынған қымыздың, органолептикалық және физика-химиялық көрсеткіштеріне сынамалар жүргізілді.

Кілт сөздер: бие сүті, қымыз, сүт қышқылы.