International Journal of Progressive Sciences and Technologies (IJPSAT)
ISSN: 2509-0119.

http://ijpsat.ijsht-journals.org
Vol. 26 No. 2 May 2021, pp.235-239

Chemical Composition, Productivity And Milking Capabilities Of Sheep Milk

Mamasov Shavkat[1], Saidmurodova Zukhra[2], Tashmanov Rakhmatullo[3], Nurmatov Sherzod[4], Tursunov Giyos[5]

[1]PhD, Samarkand Institute of Veterinary Medicine. Uzbekistan

[2]PhD, Samarkand Institute of Veterinary Medicine. Uzbekistan

[3]Senior Lecturer, Samarkand Institute of Veterinary Medicine. Uzbekistan

[4]Assistant, Samarkand Institute Of Veterinary Medicine. Uzbekistan

[5]Assistant, Samarkand Institute Of Veterinary Medicine. Uzbekistan

Abstract – Milk sheep long since it is considered one of valuable foodstuff of the person. Its structure includes fibers, fats, sugar, mineral elements and vitamins. The quantity of solids as a part of milk of sheep makes 20 %, acidity of milk local and каракульских is much more sheep of our corner of the world, than milk of cows and makes 20-250T. On put milk of sheep it is widely used at world level and its quantity makes 7-8 million tons. The data received is cited at studying. In article the data received is cited at studying of the sheep milk.

Keywords – Milk A Sheep, Foodstuff, Structure Milk, Fibers, Fats, Sugar, Mineral Elements, Vitamins, Dry Substance, Dairy Products, A Skin.

I. INTRODUCTION

Sheep's milk has long been a valuable food product of our people. It contains protein, fat, sugar and other minerals and vitamins necessary for human beings.

The total dry matter content of sheep's milk is 20%, and its acidity is much higher than that of cow's milk, 20 ... 25 0T. Currently, sheep's milk is widely used worldwide, and its volume is 7-8 million tons per year. tons. The countries that produce the most sheep's milk in the world are Turkey, France, Iran, Italy, Greece, Bulgaria, Armenia, Moldova, and the republics of the Caucasus in Russia.

In the Central Asian republics, including Kazakhstan, Turkmenistan and the Republic of Uzbekistan, there are great opportunities for the production of sheep's milk on karakul farms. It is known that 40 ... 50% of lambs born in karakul farming are slaughtered for 1 ... 3 days. It allows to get on average 30 ... 50 kg of high quality sheep milk from each sheep as a result of lactation of slaughtered sheep during lactation, ie on average 2 ... 3 months. It is possible to produce quality dairy products by milking and processing an average of 400 ... 500 grams of milk per sheep per day.

Sheep's milk is one of the underutilized resources in the country. The main reasons for non-use of these resources are: Pasture herds - insufficient research and development of recommendations for milking and primary processing of astrakhan sheep in pastures, - lack of appropriate equipment for milking astrakhan sheep, - astrakhan sheep natural difficulties in milking, ie their non-adaptation to milking, specific difficulties in keeping them during milking and labor-intensive, - insufficient material and technical

Corresponding Author: Mamasov Shavkat

means in karakul herds, - increasing pasture productivity and additional feeding of milking sheep, - small-scale milk processing on farms and herds lack of working capacity.

II. MATERIALS AND METHODS

According to the data obtained, the milk yield and lactation period of different breeds of sheep vary from 60 to 150 days and the average annual yield is 40 ... 120 kg (Table 1).

Table 1. Sheep milk productivity

№	The breed of sheep	Duration of lactation, days	Annual milk yield, kg
1	Karakul sheep	60...90	40...50
2	Gentle sheep	60...70	40...45
3	Khisori sheep	120...150	70...120

Manual milking of sheep is a very complex process that requires a lot of labor, material costs and certain organizational work.

Therefore, at present, the milking of sheep and the production of higher quality products in our country is not sufficiently developed.

Mechanization of milking and processing of sheep's milk increases labor productivity, improves the quality of milk produced. This, in turn, prepares the groundwork for the organization of milk production in karakul, creates opportunities for its implementation and contributes to the efficiency of the industry.

In general, the milk yield of sheep depends on their breed, the natural conditions in the area where they are fed, the condition of the pasture and many other factors. Karakul sheep have a much lower milk yield than some other breeds. But milking slaughtered Mary sheep for lamb skin is economically viable.

Due to the high content of dry matter in sheep's milk, its density is greater than in cow's milk and is 1,038 ... 1,040 g / cm3. The density of Karakul sheep milk is the highest at 1,042 g / cm3. The results of experiments to determine the chemical composition of sheep milk are presented in Table 2.

Table 2. Chemical composition and density of sheep's milk

№	The breed of sheep	Composition (%)						Density, g / sm3
		Water	Fat	Protein	Milk sugar	Mineral salts	Dry matter	
1	Karakul sheep	81,4	8,5	3,2	4,7	0,90	19,6	1,042
2	Gentle sheep	81,5	9,2	3,6	4,8	0,75	18,5	1,040
3	Khisori sheep	82	7,6	4,5	4,6	0,85	18,0	1,038

Because sheep milk is high in protein and ash, its acidity is much higher. For example, the milk of karakul sheep was 19 ... 24 0T, and the milk of Jaydari and Hisori sheep was 22 ... 28 0T. Similarly, the higher the fat content of milk, the higher the amount of mineral salts in it. The total amount of protein in sheep's milk is 2.0 times higher than in cow's milk, and the amount of dry matter is 1.5 times higher, which means that it has a higher density and viscosity. The melting point of fat in milk is 35.5 ... 36 0C and the melting point is 24.5 ... 25 0C.

It is known that the milk of astrakhan sheep is a valuable food product, which contains 8-10% fat, 4-6% protein, 4-6% milk sugar and a dry matter content of 20-22%. This figure is noteworthy as it is 1.8-2.0 times higher than cow's milk. Each mother sheep

has the opportunity to milk an average of 0.5 kg per day during lactation (60 60 90 days). From 20 kg to 50 kg of milk can be obtained from slaughtered sheep.

Sheep are milked twice a day. Sheep with lambs are milked first twice and then once once the lambs are separated. Sometimes sheep start milking when their lambs are one and a half months old. In this case, the lambs are separated from their mothers when they are late and kept in separate places. After the sheep are milked in the morning, the lambs are added and they are provided with additional feed. Sheep are milked by the side or back. Before milking, they are tied and wiped with a damp towel on the hands and nipples, and then proceed to milking. To do this, hold the hand with the left hand and squeeze the suckers from top to bottom with the fingers of the right hand. In this order, each sucker is milked and only then does milking begin.

Sheep's milk can be consumed in its natural state. Karakul sheep's milk is mainly used in cheese making. Iron, yogurt, yogurt and other products are also made from sheep's milk.

Today, the technology of milking karakul sheep in the country and the main processes that make up its composition, ie the physiology of their lactation, the structure and size of the udder, preparation of sheep for milking, milking, termination of milking, supplementary feeding during milking, number of daily milkings and milking sufficient scientific substantiation of the requirements for the devices is required.

Experiments on manual milking revealed the ability and intensity of milk production of sheep (Table 3).

Table 3.

№	Type of sheep	Time, hour									
		10	20	30	40	50	60	70	80	90	Total
1	Young sheep	7	15	24	24	15	7	3	0	0	95
2	Older sheep	10	20	30	30	25	17	10	5	2	149

In the experiment, the milking process of young and adult sheep at each milking was studied. A graphical representation of the initial results is shown in Figure 1. Milk yield of young sheep (1 year old) is 80-100 g. Milking time does not exceed 60… 70 s. In older (two and older) sheep, the milking process is 120… 180 grams depending on the weight of the sheep and the milking time is 80 se 100 seconds.

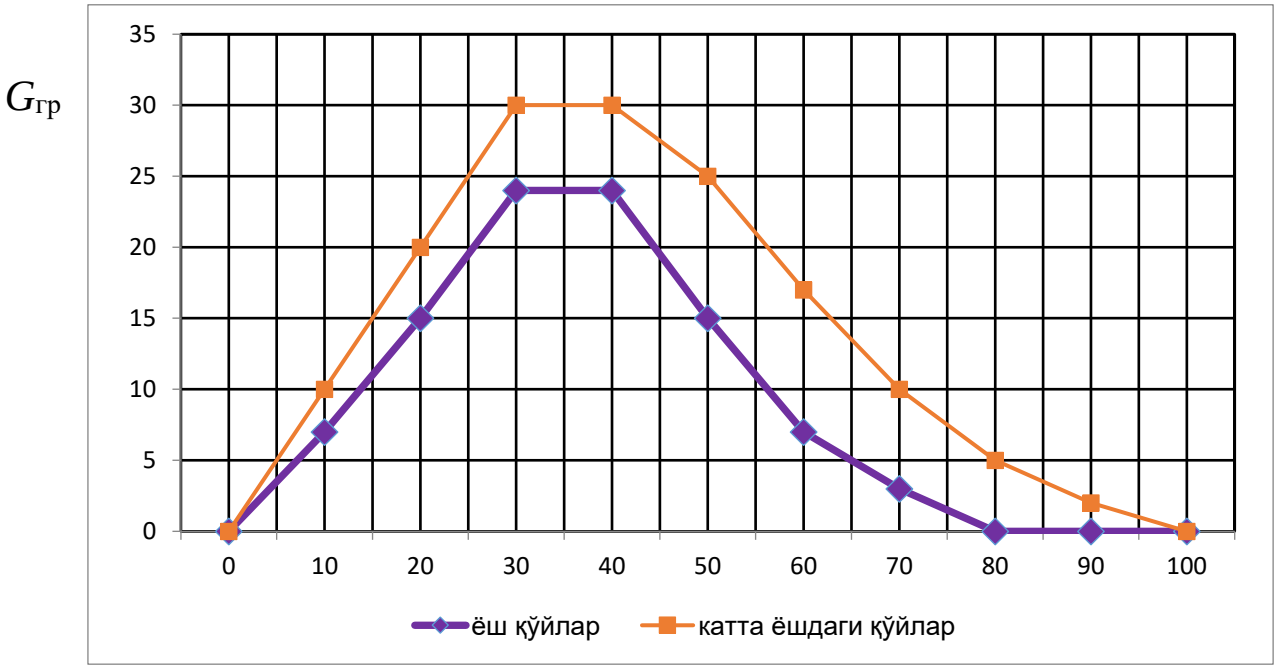

Diagram 1. Diagram of average milking intensity of Karakul sheep.

Ggr - amount of milk, gr, ts - milking time, s.

Milking diagram of 1 year old sheep (Ggr = 100 gr, ts = 60 s),

Milking diagram of 2 adult sheep (Ggr = 150 gr, ts = 90 s),

The time taken to milk a head of sheep fully manually, T = tt + ts + ttu, s

where tt is the preparation of the sheep for milking, s, tt = 10… 20 s, ts is the time taken for milking, s, ts = 50… 70 s, ttu is the time taken to finish, s, ttu = 5 u 10 s.

This indicator, ie T, averages Tk = 90… 100 s in older sheep, and Tyo in young sheep - 60… 70 s.

The main problem in milking sheep is the process of catching the sheep and keeping them calm during milking. Because karakul sheep are grazed in groups freely in the pasture conditions, keeping them and keeping them calm is one of the most difficult problems to solve. Therefore, feeding them nutritious food during lactation in the form of stimuli is one of the key factors in preparing and training them for milking.

The lactation diagram of sheep, in general, is intense at the beginning, then continues in an almost stable state, and decreases sharply at the end of milking. The frequency of pulsation in manual milking is fn = 0.8… 1.0 s-1 in young sheep and fn = 1.1… 1.3 s-1 in older sheep.

When milking sheep on a machine, the shape of their udder, the location and size of their teats, and the uniformity of the milk coming from each teat are of great importance. The location of the udder and suckers in most sheep is similar, their height from the ground is h = 250 mm 350 mm, the distance between suckers is a = 100… 150 mm, g = 5..12o (Fig. 2).

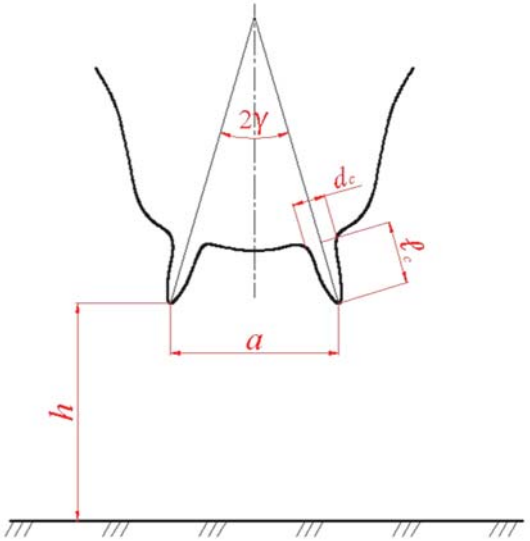

Fig. 2. The structure and dimensions of the Karakul sheep's hand.

The shape of the udder is mostly deep, symmetrical with respect to the body of the sheep. Suckers are inclined relative to the vertical axis in most sheep (60… 70%). The angle of inclination of the suckers g is greater in young sheep than in older sheep, g = 8..15, size i.e. length ls = 22… 25 mm, diameter at the bottom dc = 16… 18 mm, in older sheep these values, respectively, length ls = 25… 30 mm, diameter at the bottom of the pacifier dc = 18… 20 mm and the angle of inclination of the pacifiers to the vertical axis g = 5..10. The difference in the amount of milk coming from each pacifier is 3… 5%. is of great importance in machine milking.

III. Conclusion

Milking and milk processing of karakul sheep in pasture conditions is a complex biotechnological process from the engineering point of view, and its zootechnical, engineering, technological and economic issues require the development of a scientific solution as a whole system.

References

[1] G.V. Tverdokhleb, Z.Kh. Dilanyan, LV Chekulaeva "Technology of milk and dairy products" Moscow "Agropromizdat" 1991.

[2] P.V. Kugenev "Primary milk processing on farms" Rosselkhozizdat Moscow 1994.

[3] A. Rakhimov "Karakulchilik" Tashkent. 1997 year

[4] N.Ya.Lukoyanov, N.V. Boronovsky "Equipment for dairy industry enterprises" Moscow. Food industry. 2008 year.