Dependence Of Karakul Sheep's Milk Productivity on Their Udder Structure

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ABSTRACT

The article presents the study of milk productivity of karakul sheep depending on the colour in the northern conditions of the Republic of Karakalpakstan. Optimal opportunities of increasing milk productivity were determined; the results of changing daily milk productivity in agedependent dynamics were given.

Keywords: Milk Productivity, Sheep Colour, Sheep Age. *Deep udder ,Long udder, Semi-circular udder.*

The udder structure of karakul sheep is to some extent related to the milk yield of ewes. According to many scientists, the structure of the udder of karakul sheep is different.

In our experimental work, we aimed to study the structure of karakul sheep by dividing into the following udder structures based on many years of research and the experience of breeders in the field.

They consist of the following:

1. Deep udder. Sheep udder of this type is situated deeply and has a slightly wider milk bath than other types of udder.

A sheep with such a udder has all the conditions for comfortable milking of sheep and provides a certain level of milk yield. Sheep with such udder are numerous in the herd.

2. Long udder. Ewes with such an udder have a slightly smaller milk bath, and the rate of milk accumulation is much lower than that of a deep udder. Sheep with elongated udder make up a small number in the herd.

3. Semi-circular udder. In ewes with such an udder, the mechanism of milk production and milk yield is low. In most cases, sheep with such udders have a shortage of milk at the birth of twins, resulting in poor milk supply to the offspring, and lag in the growth and development of lambs. Based on many years of observations and experimental research, dividing sheep according to the udder structure is as follows.

Table 1

Dividing ewes of different colours according to the structure of the udder

The structure of the udder	**Sheep in different colour**					
	Black n=50		Grey n=42		Blue n=38	
	Number of sheep	%	Number of sheep	%	Number of sheep	%
Deep udder	40	80,0	35	83,4	32	84,2
Long udder	3	6,0	2	47,0	2	5,3
Semi-circular	7	14,0	5	11,9	4	10,5

udder						

Experimental data show that in dividing sheep of different colors according to the udder structure, the number of sheep with deep udder in grey sheep was 84.2%, and in black sheep - 80.0%. Blue ewes took the intermediate place (83.4%).

Depending on the udder structure of karakul sheep, the milk yield indicators are as follows.

Table 2

Dependence of milk yield of different colored karakul sheep during 60 days of lactation on udder structure, kg

The structure of the udder	**Sheep in different colour**		
	Black n=50	Blue n=22	Grey n=38
	X±Sx		
Deep udder	39,8±1,49	37,6±1,69	38,1±1,97
Long udder	32,7±1,17	34,5±1,74	34,9±2,01
Semi-circular udder	31,9±1,06	33,7±1,68	32,6±1,86

The table shows that the analysis of dependence of milk yield of different colored karakul sheep during 60 days of lactation on udder structure shows that the milk content of black sheep is 100%, 94.5% in blue ewes and - 95.7% in grey ewes.

Based on many years of experience, it is possible to point out that when we analyze a large number of karakul herds, the number of sheep with deep udder is to a certain large extent. It should be noted that in most cases, the degree of twins is high in sheep with deep udder. The structure of the udder is important in not only in the productivity of the leather of karakul sheep, but also in the production of meat from them, it is necessary to take into account these indicators in the production of their milk yield and healthy lambs.

Chemical composition of Karakul sheep's milk

Along with the production of milk from karakul sheep, its quality is of great importance. The composition of sheep's milk depends on many factors, such as their constitution, feeding and storage methods, color, age.

The higher the quality of sheep's milk, the higher the quality of products made from them, which satisfies with international standards and are in demand.

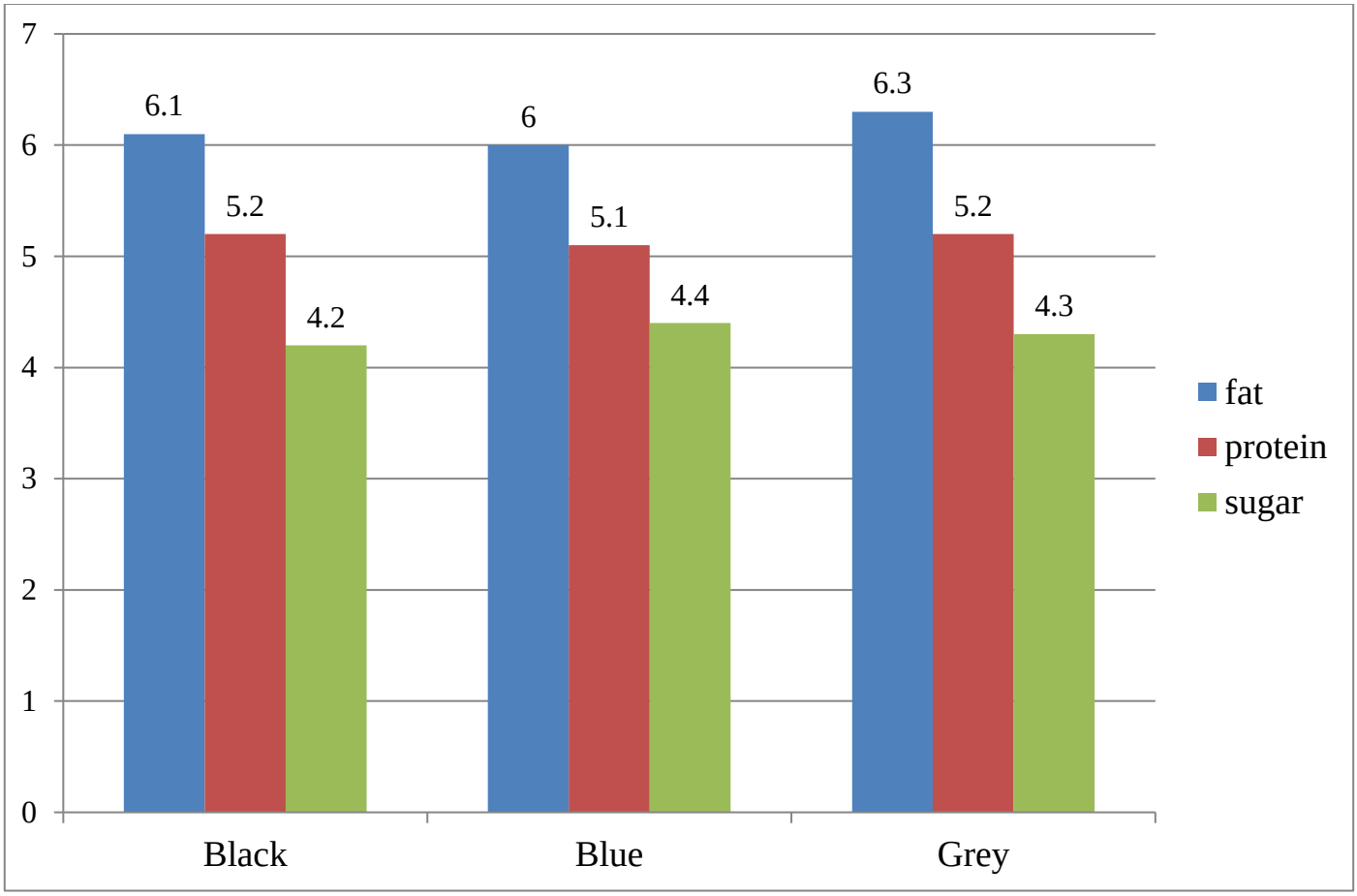
It is known from world experience that many products are made from sheep's milk. The chemical composition of milk plays an important role in the processing of sheep's milk.

Karakul sheep's milk contains 5-8% fat, 4-6% protein, 4.6% milk sugar and 20-22% dry matter. Each karakul sheep which lambs were slaughtered can produce an average of 20-50 kg of milk during lactation and an average of 0.5 kg per day during lactation. The milk yield and lactation duration of sheep of different breeds vary, averaging 60-150 days, with an average annual milk yield of around 40-120 kg.

3-жадвал

Chemical composition of Karakul sheep's milk of different colours

Indicators	Sheep in different colours					
	Black n=7		Blue n=5		Grey n=6	
	X±Sx	Limit	X±Sx	Limit	X±Sx	Limit
Water	82,4±5,2	81,1-83,4	82,1±5,8	81,3-83,5	82,4±5,9	81,7-83,4
Fat	6,1±0,52	5,8-6,6	6,0±0,43	5,7-6,4	6,3±0,48	5,8-6,5
Protein	5,2±0,32	4,9-5,4	5,1±0,37	5,0-5,3	5,2±0,39	5,1-5,4
Sugar	4,2±0,28	4,0-4,5	4,4±0,26	4,1-4,7	4,3±0,27	4,2-4,6
Mineral elements	0,81±0,05	0,79-0,86	0,84±0,05	0,81-0,89	0,83±0,06	0,80-0,86



Chemical composition of Karakul sheep's milk of different colours

Because sheep milk is high in dry matter, its density is high (1,038-1,040 grams / cm3). In karakul sheep, the milk density is higher, at 1,042 g / cm3.

When milk productivity of karakul sheep was studied by feeding on a special ration and on a farm, during the first 20 days of lactation, milk productivity of sheep in the group which fed according to the special ration was 19.1 liters., in the group fed on farm conditions was 15.1 liters, and milk productivity of ewes which fed on the basis of special ration found to be more by 4,0 liters.

In our study, the chemical composition of sheep's milk is given in Table 4.6.1 below.

It can be seen from the data in the table that the color of the karakul sheep is almost indistinguishable from each other in terms of the results of determining the chemical composition of milk. Milk of all the colors of sheep were in the standard pattern.

In short, the same nutrition, pasture conditions, storage conditions prove that the chemical composition of milk is close to each other.

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