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METHODS OF MILKING SHEEP AND ORGANIZING SUPPLEMENTAL FEEDING

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Abstract:

The article provides information on increasing the milk productivity of Karakul sheep, methods of milking them, supplemental feeding for milking ewes, and a feed recipe.

Keywords: Karakul sheep, ewes, lambs, milk productivity, supplemental feed, pasture feed, feed recipe, milking method.

One of the important and primary branches of livestock farming in the Republic of Karakalpakstan is Karakul sheep breeding. In the rapid development of the Karakul sector, increasing the number of sheep is considered an urgent issue.

The mother's milk plays a crucial role in keeping lambs alive. It is advisable to separate first-, second-, and third-lambing ewes as needed and provide supplemental feeding: at least 250–300 grams of concentrated feed and 0.5 kg of succulents (juicy feed) per head.

Pasture plants are distinguished by their high nutritional value and are relatively inexpensive for sheep maintenance, which is very important for the development of Karakul sheep breeding. However, due to the ecological characteristics of desert pastures—differences in their classes and main types depending on the season—the productivity of natural forage lands largely depends on the climatic conditions of specific regions and the productivity of the vegetation.

The efficiency of Karakul sheep breeding is closely related not only to the type and volume of products, but also to their milkiness and milk quality. High milk productivity in Karakul sheep depends on feeding and management conditions, the breed of the sheep, fertility level, age, to some extent the color of the sheep, their conformation, udder shape, milking methods, and other similar factors.

Under the conditions of Karakalpakstan, Karakul ewes are mainly milked for 60–90 days. Milking begins after the lambs are slaughtered for Karakul pelts and stops 100–120 days before the mating season. In the Qizilkum region, Karakul sheep are milked once a day, making it possible to obtain an average of 60–90 kg of milk per ewe per lactation. Milking of Karakul sheep is carried out in the morning and is discontinued when the lambs reach 60–75 days of age.

Milking ewes are kept separate from their lambs at night, and during the day the lambs are allowed to join their mothers and are sent to the pasture together. Milking continues in this manner.

Productive pastures should be allocated for milking sheep. The pasture radius should preferably not exceed 2–3 km. If Karakul ewes have moderate or below-moderate body condition during the milking period, supplemental feeding is required. Supplemental feeding not only helps maintain a stable body condition but also increases milk productivity to some extent. This ensures that lambs receive enough mother's milk and provides the opportunity to obtain extra milk. In our research, supplemental feed was prepared according to the recipe recommended by M. Smailov (2018). The feed recipe used in the experiment is shown in the following table.

Table 1

Composition of Concentrated Feed Mixture (per 100 kg)

Indicators	Barley	Wheat Groats	Bran	Total	Per 1 kg
Quantity, kg	35	15	50	100	1.0
Feed units	0.40	0.18	0.37	95.0	0.95
Metabolizable energy, MJ	3.92	1.86	4.77	1055	10.5
Dry matter, g	297.5	127.5	425	85,000	850
Digestible protein, g	39.5	10.44	76.5	12,650	126.5
Crude fat, g	7.7	3.67	17	2,637	28.3
Crude fiber, g	17.1	8.76	40	6,580	65.8

Nitrogen-free extract, g	223.3	120.4	265	60,840	608.4
Sugar, g	0.7	3.0	23.5	23,870	238.7
Calcium, g	0.7	0.40	1.0	210	2.1
Phosphorus, g	1.36	1.0	4.8	716	7.16
Potassium, g	1.75	0.51	5.45	771	7.71
Iron, g	17.1	6.0	85	10,850	108.8
Iodine, g	0.08	0.009	0.87	95.8	0.96
Carotene, mg	0.17	0.15	1.3	162	1.62

Based on the diet prepared according to this recipe, it is recommended to provide supplemental feeding once a day in the evening under pasture conditions. Supplemental feeding helps maintain the body condition of lactating ewes and increases the amount of milk they produce.

Currently, two methods of sheep milking are commonly used:

1. From the rear – in this method, milk is extracted by squeezing the teats of the udder with the right hand from between the hind legs.
2. From the left side – in this method, milk is released by pulling the teats from top to bottom.

It should be noted that both methods are widely used; however, the first method causes more discomfort to the animal and increases the risk of udder diseases. The second method is more convenient and meets hygienic requirements.

During the milking period, adhering to zoohygienic standards is one of the most important zootechnical requirements. It is necessary to ensure that no wool gets into the milk during milking and to prevent dust from entering the milk containers. To avoid this, milk containers must be covered with a double-layered clean cloth. The milk obtained should be poured into special containers or milk cans using a gauze filter. Milking ewes must be kept under veterinary supervision.

Under year-round pasture conditions, full-value feeding of Karakul sheep requires supplemental feeding. Priority should be given to weak sheep, followed by pregnant ewes depending on their physiological state, lactating ewes, breeding rams during artificial insemination, and young lambs during periods of feed depression.

Supplemental feed mixtures are recommended to include cottonseed hulls, oilcakes, crushed grains, grain waste, chalk, and salt.

The amount of supplemental feed provided per sheep at one feeding ranges from 300–600 grams, depending on the animal's body condition and pasture productivity. When determining the annual requirement for supplemental feed, the following must be considered: deficiency of nutrients in pasture forage, number of days when animals cannot graze due to meteorological conditions, daily need for supplemental feeding.

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