KEEPING AND FEEDING KARAKUL SHEEP ON PASTURES IN SURKHANDARYA REGION

Independent researcher of Tashkent State Agrarian University PhD in Agricultural Sciences, Associate Professor ***U. Sh. Saydaliev***
Termez State University of Engineering and Agrotechnology Assistant of the Department of Zooengineering, Veterinary Medicine and Sericulture ***Sh.B. Kurbonov***

Annotasion. The article describes the feeding standards for Karakul sheep, the annual nutrient requirements of Karakul sheep, the pasture diet and their seasonal nutrition, feeding standards for Karakul sheep of different sexes and ages, as well as feeding standards for Karakul sheep supplementary feeding.

Keywords: *Karakul sheep, pasture feed, feeding standards, supplementary feeding, annual requirement, seasons.*

Introduction. Karakul farming plays an important role in the agrarian sector of the economy of Uzbekistan. The development of Karakul farming determines the solution to many social problems in the desert and semi-desert regions.

In implementing this important task, the rational use of desert and semi-desert pastures, preservation of pasture ecosystems, increasing their productivity, improving the palatability of forage plants, improving the health of herds using medicinal and nutritious plants, and improving the level of water supply to pastures are of great importance.

One of the main principles of rational use of pastures is the ratio of the natural capacity of pastures to the number of animals kept on them.

Therefore, research should consider the balance between the biological potential of pastures and the number of animals on them. Increasing the productivity of Karakul sheep depends on the condition of natural pastures and the nutritional value of forage plants.

Pasture is essential for the productivity of Karakul sheep. It is not only a source of animal feed, but also an ecological environment in which the sheep live.

The self-renewal and phytomass production of natural pasture plants make pastures a source of biological reserves that provide food.

The moderate composition of the sheep flock on Karakul farms, along with increasing the yield of Karakul sheep, creates the opportunity to feed them and rationally use pastures.

Purpose of the study. The article aims to study the feeding standards of Karakul sheep, the annual nutrient requirements of Karakul sheep, the ration of pasture feed by season and its nutritional value, the feeding standards of Karakul sheep of different sexes and age groups, and the standards for their supplementary feeding.

Research methods: The use of pasture areas was studied by identifying their geobotanical characteristics, relief, vegetation, seasonal dynamics of the average annual feed reserve, irrigation source, and buildings and structures on pastures.

Determining pasture productivity - in order to accurately determine the period during which sheep can be grazed on pastures, it is necessary to know the feed reserves in them. Transect and quadrat methods are used to determine pasture productivity.

In typical small-grass pastures, forage mass is determined by placing a square frame measuring 71x71 cm2 in a transect formed by driving stakes into a rectangular area measuring 50x2; 25x4 or 100x1 meter, and pulling a cord taut across it.

When determining the mass of forage in mixed pastures, the bushes within the transect are visually inspected, divided into large, medium, and small bushes, which are counted, and triplicate samples of grasses in each class are taken.

The plant samples were dried and weighed on a scale, and the weight of one plant from each class was determined. The dry weight of the plants in each class was multiplied by the number of plants to determine their weight.

The determined weight was multiplied by the number of grasses in each class (large, medium, and small) and the product was summed to determine the reserve of feed mass in the pasture. This data was then recalculated and converted into feed units.

Determining feed requirements by season - Only standardized feeding allows Karakul sheep to fully demonstrate their inherited productivity potential.

Plant nutrition was determined by the chemical composition of the pasture diet by season. Feed productivity was expressed in conditional feed protein units (CPU).

Results from the study.

Pasture rations by season, depending on pasture type.

Pasture rations - the nutritional value of feed obtained from a given part of the pasture, are determined depending on the vegetation phase of the plants and the seasons of the year. Pasture rations and their nutritional value by season are presented in Table 1 below.

Pasture rations and their nutritional value by season (per 100 kg of absolute dry matter)

		Nutritional value per 100 kg

Pasture type and seasons	Foods eaten on pasture	Feed unit	Digestible protein	Exchangeable energy, MDj
Ephemeral and Ephemeroid				
Spring	Yashil efimerlar	85	10,0	952,0
Summer	Dry ephemerals are residues and waste after harvesting agricultural plants.	53	6,0	593,0
Autumn	Dry ephemerals, growing ephemeroids	45	2,85	504,0
Winter	Dry grass and coarse grass	39	1,85	436,8
Wormwood – ephemeral				
Spring	Green ephemera, wormwood leaves	63	8,3	705,6
Summer	Dry ephemerals are the thin branches of wormwood, the seeds of all plants	38	5,2	425,6
Autumn	Herbs, wormwood, and sage	36,5	3,5	408,8

Winter	Herbs, wormwood, and sage	30,5	2,37	341,6

Analysis of the table data shows that in the spring, ephemeral and ephemeroid pastures account for 85 feed units, and wormwood - ephemeral pastures account for 63 feed units.

This indicator was 53 and 38 feed units in summer, 45 and 36.5 feed units in autumn, and 39 and 30.5 feed units in winter, respectively. In all seasons, the predominant indicator was observed in ephemeral and ephemeroid pastures.

Feeding standards for Karakul sheep. Karakul sheep are kept on pasture and their nutritional status varies dramatically depending on the type and level of feeding. To obtain high-quality products from sheep, it is necessary to ensure that their feeding level is high and complete throughout the year.

Feed reserves are first calculated based on the average productivity of each type of pasture during the seasons, and then the total feed reserves for the farm are calculated. The feed reserve should be 20% more than the average annual feed requirement of one sheep. The length of the year is considered 100%, and the spring, summer, autumn and winter seasons are calculated as a percentage of it.

The length of the season is determined by the growth of pasture vegetation. For example, in the desert, the length of the seasons is as follows: spring -24%, summer -37%, autumn -22%, and winter -17%. Table 2 below shows the annual nutrient requirements of Karakul sheep.

Table 2.

Annual nutrient requirements of Karakul sheep (per head)

Group of sheep	Ozuqa birligi	Almashinuvchi energiya, MDj	Hazmlanuvchi protein, kg	Eyiladigan quruq massa (kg)
Gifts	435	4828,5	38	1082
Lambs born last year	401	4456,0	32	897
*I*Lambs born this year	292	3241	32,8	620

Note: Annual feed requirements depend on flock composition, live weight, and shearing rate.

From the table data, it can be seen that the annual feed requirement of the sows was 435 feed units, containing 38 kg of digestible protein.

It can be seen that this indicator is 32 and 401 in last year's lambs and 32.8 and 292 in lambs born this year.

The annual requirement for roughage is determined based on the daily feeding rate of the sex and age groups of sheep. During the research, the feeding standards of Karakul sheep of different sexes and age groups were studied, and the results are presented in Table 3 below. ***Table 3.***

Turli jins va yosh guruhlaridagi qorako‘l qo‘ylarini oziqlantirish me’yorlari (bosh /sutka)

Groups of sheep	Feed unit	Exchangeable energy, MDj	Digestible protein, g	Dry matter, kg
Gifts:				
Single	0,85	11,0	75	1,4
Bull, other half	1,2	14,7	120	1,7
Breastfeeding	1,3	15,7	135	1,7
Female lambs:				
4-8 months	0,85	9,9	90	1,1
8-12 months	0,95	11,0	100	1,2
12-18 months	1,1	12,6	110	1,4
Rams:				
4-8 months	1,0	12,5	120	1,1
8-12 months	1,3	15,6	150	1,4
12-18 months	1,45	17,3	165	1,7
Naslli qo‘chqorlar	1,25	15,0	190	1,6

It can be seen from the table that the amount of feed units consumed by ewes increases during their gestation period and during the lactation period. Of course, these changes are related to the development of the fetus during the gestation period of ewes and the development of the lamb during the lactation period.

In ewes, feed unit consumption varied depending on their live weight gain, reaching 1.1 feed units at 12-18 months of age. It can be seen that these changes were also observed in rams. In pedigree rams, feed consumption was 1.25 feed units.

Standards for supplementary feeding of Karakul sheep. In order to provide Karakul sheep with a full-fledged diet during year-round grazing, it is necessary to provide them with additional feeding. First of all, weak sheep are fed, then, taking into account their physiological condition, ewes, lactating ewes, breeding rams during artificial insemination, and young lambs during periods of feed depression.

It is recommended to prepare a supplementary feed mixture from the following components: cottonseed meal, kunjara, crushed grain feed, grain waste, chalk, and table salt.

The amount of supplementary feed per sheep is 300-600 g, depending on the level of fatness of the sheep and the productivity of the pasture.

When determining the annual requirement for supplementary feeding, the following factors are taken into account: the deficiency of nutrients in pasture forage, the number of days of standing without grazing due to meteorological conditions, and the need for daily supplementary feeding. The standards for supplementary feeding of sheep of different sexes and age groups are presented in Table 4 below.

Table 4

Supplementary feeding standards for sheep of different sexes and age groups

Group of sheep	Supplementary feed composition	Quantity (kg)	Nutritional value		
			Feed unit	Digestible protein	Exchangeable energy, MDj
Gifts: In the second half of his life	Natural weed	0,3	0,12	18,3	2 , 13
	Concentrates	0,3	0,12	18,3	2 , 13
Breastfeeding gifts	Concentrates	0,3	0,22	27,3	2 , 80

	cotton bud	0,1-0,15	0,16	39,9	1 , 71
Large family	Soft-stemmed grass	1,5-2,0	0,84	91,5-122	2 ,55-3, 40
	Concentrates (barley porridge)	0,4	0,29	36,4	4 , 28
Lambs	Soft-stemmed grass	0,5	0,21	30,5	3 , 55
	Concentrates	0,2	0,15	18,2	1 , 86
	cotton bud	0,1	0,11	2,66	1 , 31
Rams (seeker)	Quality hash	Istagancha			
	Concentrates	0,5-0,8	0,37-0,59	45,5-72,8	4 ,66-7, 46
Breeding rams (during artificial insemination)	Quality hash	Istagancha			
	Concentrates	0,8-1,0	0,59-0,74	72,8-91,0	7,46-9,333

From the table data, it can be seen that Karakul sheep were given different amounts of supplementary feed with different compositions, depending on their age, sex, and physiological condition. The amount of additional feed given to breeding rams during the artificial insemination period was 0.8-1.0 feed units.

Conclusions. 1. The change in the form of ownership in Karakul farming has fundamentally changed the attitude towards land. Therefore, special attention should be paid to the productive use of pastures on the territory of Karakul farms, because the lack of measures to improve pastures will lead to their degradation, which may result in a number of problems related to sheep feeding.

2. In order to rationally use pastures on farms and prevent pasture crises, it is advisable to divide pastures into separate areas, organize grazing in a conditional-zagon system, and calculate the area sizes separately for different types of sheep.

3. When determining the annual requirement for supplementary feeding, it is important to consider the nutrient content of pasture forage, the number of days of stable storage, and the need for daily supplementary feeding.

List of used literature:

1. Bobokulov N.A, Ismailov M.Sh, Popova V.V, va b. «Qorako'l qo‘ylarini oziqlantirishning yuqori samarali, resurslarni tejovchi texnologiyasi». Samarqand 2011.-b 34.
2. Saidolimov A. K. Saydaliev U.Sh. Agrologistikani rivojlantirish asosida qishloq xo‘jaligida barqaror iqtisodiy o‘sishni ta’minlash. Monografiya. Toshkent Fan ziyosi nashriyoti 2023-yil.
3. Saydaliev U.Sh. Chorvachilik asoslari Darslik. Toshkent. Fidokor yosh avlod nashriyoti. 2024-yil.
4. Saydaliev U.Sh. Umumiy zootexniya Darslik. Toshkent. Fidokor yosh avlod nashriyoti. 2023-yil.