



The Structure of the Diet for Fattening Young Karakul Sheep of Early Weaning

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Annotation: The materials of a scientific experiment to clarify the optimal energy value of the diet for young animals by periods of cultivation are given. It has been established that the high-energy structure of the diet increases the daily gain in live weight of young animals and allows you to bring the live weight up to 33-35 kg and pass them on for meat in the year of birth.

Keywords: lambs, early weaning, live weight, diet.

Introduction. Full provision of the animal's need for energy is the most important condition for increasing the productivity of animals and its normal production. As a result of the intensification of animal husbandry and the increase in the productivity of animals, energy nutrition becomes relevant [1,2]. Intensive rearing of young animals contributes to a significant increase in the production of young lamb, will increase the profitability of the astrakhan industry. In experiments on growing lambs with different energy levels of feeding, a high growth rate of meat productivity is noted. Ante-slaughter intensive fattening for 90 days is the most effective in terms of the volume and quality of mutton produced [3]. The use of early weaning in areas exposed to early spring droughts is beneficial, as it allows you to save the resulting offspring in the harsh forage and climatic conditions of deserts. Early weaning at the age of 40-60 days with the transfer of lambs to dry vegetable feed with different energy value is promising and expedient, as indicated by a number of authors [4,5,6,7,8] and according to the results of our studies.

The introduction of the developed fattening technologies into astrakhan breeding is relevant in solving the food security of the Republic of Uzbekistan.

Materials and methods. Fattening of young animals (rams) of early weaning was carried out from May 25 to August 27, the duration of the experiment was 94 days. 3 groups of rams were formed, 15 heads in each, at the age of 60 days. Moreover, one control group, and two other experimental (I and II) control groups of young animals were kept with queens in the pasture, and the rams of the experimental groups were taken away from the queens and transferred to stationary maintenance and were fed diets of different nutritional value (Table No. 1).

Table No. 1. Composition and nutritional value of diets for rams of experimental groups diet (% by weight)

Feed	No.1	No.2
Barley	40,0	70,0
Cotton cake	10,0	10,0
Compound feed	10,0	10,0
Alfalfa hay	31,5	9,0
Carrack hay	4,0	-
Amber hay	4,0	-

Limestone	-	0,5
Salt	0,5	0,5
Premix micronutrients	0,1	0,1
1 kg contains: fodder.	0,82	1,07
Digestible protein, g	144	138
Exchange energy, MJ	9,08	10,34

For the young animals of the experimental groups, a barn was prepared, where separate compartments (sections) with feeders and watering troughs were arranged. In addition, not far from the barn, a shed was built with two compartments made of local material, where the animals were transferred with an increase in air temperature and kept there all night.

The lambs of the I experimental group received a medium energy diet (No. 1) with a nutritional value of 1 kg of 0.82 fodder units, 144 g of digestible protein and 9.08 MJ.

The lambs of the II experimental group received a high-energy diet. Nutrition in 1 kg 1.07 feed units and 138 g of digestible protein, 10.34 MJ. Animals of both groups received 1 kg/head until the end of the experiment. loose feed mixture, appropriate diet.

The prepared daily feed mixture was given to the animals 3 times a day - at 7.00, 13.00 and at 19.00. During fattening, the young animals of the experimental groups were individually weighed at the beginning of the experiment, then every 10 days of feeding.

In the course of the research, the consumption of diets by rams of the experimental groups, the amount of water consumed were taken into account, and the air temperature was recorded in the morning (9.00) and evening (17.00) hours.

The nutritional value of the diets that were tested in the experiments were calculated according to the reference book [9]. The chemical composition of feed components of diets was studied by generally accepted methods of zootechnical analysis of feed products [10].

The results obtained were processed by the method of variation statistics [11, 12].

The results of fattening young animals of early weaning. Observations of the behavior of early weaning lambs showed that in the first three days the young animals showed great anxiety, reluctantly ate the ration. Then, stabilization to the new situation began, the lambs began to eat the feed mixture of the diet better.

Accounting for feed intake by animals showed that the lambs of the first experimental group ate the diet by 88-90%, only coarse parts of alfalfa, carrack, amber hay were left in the remains. The palatability of the diet by young animals of the II experimental group was 95-100%. During the study period, the amount of water the young animals of the I experimental group drank from 2.3-2.6 liters per head per day, the lambs of the II experimental group 2.5-2.8 liters. Registration of air temperature showed that in May it was within 21-24⁰C in the morning, 26-29⁰C in the evening, 20-26⁰C and 26-34⁰C in June, 25-29⁰C and 30-34⁰C in July, 23-34⁰C in August, 27⁰C and 31-34⁰C, respectively.

The results of the chemical composition of the ingredients included in the diet of the experimental early beating lambs were characterized by certain differences in the content of the main nutrients (Table No. 2).

So, a significant amount of crude protein was contained in cotton cake 30.6%, it has little fiber 12.5%, the least crude protein in pasture forage hay of past harvest years is 8.7-7.8%, it contains a lot of fiber - 34-36%. Crude fat was most contained in cotton cake - 5.6%, least of all in pasture forage hay.

Table No. 2. The chemical composition of feeds used in the fattening of young animals of early weaning (% in air-dry matter)

Feed	Water	Raw protein	Raw fat	Raw fiber	Raw ash	NFE
Barley	12,0	11,5	2,7	8,0	4,6	61,2
Cotton cake	8,0	30,6	5,6	12,5	6,8	36,5
Compound feed	11,5	10,0	2,6	5,8	6,0	64,1
Alfalfa hay (current year)	13,0	13,0	2,1	28,3	8,5	35,1
Amber hay	12,0	8,7	1,6	34,0	13,0	30,7
Carrack hay	10,0	7,8	1,4	36,0	11,0	33,8

The fattening of young animals of early weaning on diets with unequal energy value had a significant impact on the indicators of live weight gain. Table No. 3 shows the dynamics of live weight and average daily gains of lambs in the control and experimental groups. From the data of the table it can be seen that during the first month of fattening in the lambs of the experimental group, who ate a medium-energy diet, the average daily weight gain was 150-210 g, and in young animals of the II experimental group, who received a high-energy diet, this indicator was in the range of 190-260 g.

Table No. 3. Dynamics of live weight of different groups

Animal age (days)	Group					
	Control		Experimental I		Experimental II	
	Live weight, kg	Average daily gain, g	Live weight, kg	Average daily gain, g	Live weight, kg	Average daily gain, g
60	16,6+0,35	-	17,0+0,22	-	16,8+0,34	-
70	-	-	18,8+0,28	180	18,7+0,18	109
80	-	-	20,9+0,34	210	20,7+0,22	200
90	-	-	22,4+0,32	150	23,3+0,28	260
100	23,9+0,23	182,5	25,0+0,33	260	25,4+0,27	210
110	-	-	27,0+0,33	205	27,3+0,28	190
120	27,0+0,27	173	28,8+0,32	175	29,4+0,32	210
130	26,6+0,26	-	30,3+0,28	150	31,2+0,31	180
140	26,0+0,24	-	31,6+0,30	130	32,7+0,31	157
154	27,8+0,24	128	33,6+0,29	142	35,2+0,29	178
General and average daily gain	11,2	119	16,6	176	18,4	195

On the 90th day of fattening, the lambs of the I experimental group had a body weight of 22.4 kg, of the II experimental group 23.3 kg.

In the future, due to the high air temperature in July-August, the weight gain of the experimental lambs decreased somewhat. So, by the period of weaning (120 days), the average daily gain in young animals of the I experimental group was 175 g, in the II - 210 g; at 130 days - 150 and 180 g, at 140 days 130-157 g. In mid-August, the lambs were sheared, and by the end of the experiment, their average daily gains increased again and amounted to 142 g in the first experimental group and 178 g in the second group.

During the beating period, the live weight of young animals in the control group was 27.0 kg, in the I experimental group and 28.8 kg in the II - 29.4 kg, which is 6.7 and 8.9% more.

At the end of fattening, the average live weight of the lambs of the I experimental group was 33.6 kg, in the II - 35.2 kg, and in the control - 27.8 kg, or less by 20.8-26.6%. The total weight gain of the lambs of the I experimental group was 16.2 kg, in the II - 18.4 kg, and in the control group - 11.2 kg, with average daily gains of 119.176 and 195 g, respectively.

Conclusions. Early weaning of young animals (rams) with a poor quality of astrakhan with their subsequent fattening on high-energy diets allows you to bring the live weight to 33-35 kg and pass it on for meat in the year of their birth.

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