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Effective Techniques for Fathering and Fattening of Old-Grown Queens in Farm Conditions

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ABSTRACT

The article presents an effective system of pasture feeding, fattening and fattening of old-aged queens, which ensures an increase in their productivity in farm conditions.

KEYWORDS: *Fattening, fattening, old queens, feed, pasture diet, palatability, intensive grazing.*

In Uzbekistan, karakul breeding is a significant area of desert and semi-desert livestock husbandry. The condition of natural pastures and the nutrient content of fodder vegetation have a nearly total impact on sheep output. The original foundation and material basis for the effective operation of astrakhan breeding are pastures. At the same time, the pasture serves as both an ecological haven for animals and a source of sustenance for them. Natural pasture vegetation can regenerate and create phytomass, making it a source of biological resources. Animal output is based on the rational use of this resource. [1]

Currently, in our nation, the challenge is to feed animals with as much vegetable feed as feasible while still avoiding a cost-prohibitive strategy to concentrate consumption and maintaining the quality of the products. The common practice of feeding creatures ought to contribute in some small way to the resolution of this crucial issue.

The year-round practice of feeding livestock is possible, but the spring-summer and summer-autumn seasons are the most palatable and productive times to do so.

Usually culled by age, dry queens, as well as heaps of the most recent year of birth and juvenile growth of the present year, are prone to fattening.

In addition to causing weight gain, fattening improves the quality of sheepskins and greatly increases the nutritional value of meat. Lean sheep's meat contains 57.3% water and 42.7% dry matter, compared to 33 and 67% for well-fed sheep. In the event of overexposure, a well-fed sheep is better able to withstand the harsh winter weather, produce robust offspring, and produce an abundance of wool in the spring.

The Republic of Uzbekistan primarily breeds sheep of the Karakul breed, which is important for restocking the nation's meat supplies. Other sheep breeds, such as the Gissar and Jaidara, which are renowned for having a high meat-fat productivity, are also extensively bred in some areas.

In light of the aforementioned, the goal of this research was:

- The creation of a productive system for pasture feeding, fattening, and fattening karakul sheep to ensure their increased output in farm settings.

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Materials and Methodologies

The following were investigated during science and economic experiments:

- Forage reserves calculated using the accounting squares technique on pastures.
- chemical makeup of the diet [2]
- The amount of nutrient provision for animals by contrasting the standards with the actual protein and total energy intake by animals. [3]
- Individual measuring was used to calculate live weight;
- Estimated daily average weight increase.

The supplies included coarse native fodder such as barley straw, alfalfa hay, forb hay, amber hay, sagebrush hay, and carrack hay.

While the control animals were kept in pastures, experimental groups of culled queens were housed in stationary circumstances. These trials will last 65 to 69 days.

The following indicators were taken into consideration during the trials on animals that were being fattened:

- Animals' capacity to consume rations while accounting for feed residues;
- Modification of live weight determined by individual animal weighing;
- General and typical everyday weight gains determined by the proper calculations;
- Gaining livestock as payment for feed. Generally recognized techniques for zootechnical analysis of feed products were used to investigate the chemical composition of the feed and the components of the rations. [2]

The variation statistics method was used to process the data. [4]

Result

After the lambs were beaten off, the animal feeding units were created (end of July). The average live weight of the sheep in the experimental group (70 heads) was 36.5 kg, compared to 36.4 kg for the control group's (40 objectives) sheep. The control group practiced intensive grazing for 13–14 hours per day on a separate section of pastures with production livestock.

Both groups' experimental animals foraged on the same pastures in the foothills, whose productivity during the feeding period did not surpass 2.4 c/ha. During the grazing period, the animals consumed an average of 2.3–2.4 kg of dry matter with little nutrient-dense feed, providing 1.10–1.15 feed units of total calorie nutrition and 70–75 digestible protein.

Live weight rose by 117 g per day in control animals and by 138 g in experimental animals during the first month of fattening, for a total weight gain per head of 3.51 and 4.14 kg, respectively (Table 1.).

Table 1 Main indicators of fattening of culled sheep (summer-autumn period)

Indicators	Flocks (groups)		
	Control	Experienced	% to control
Staging live weight, kg	36,4 ±0,27	36,5±0,22	
Gain for 1 month, kg	3,51	4,14	
Average daily weight gain, g	117	138	
Live weight, kg	39,9±0,39	40,6±0,41	118,0
Nutritional value of the diet, fodder units	1,15	1,15	

Gain for 2 months of experience, kg	1,47	2,52	
Average daily weight gain, g	49	84	171,0
Total weight gain, kg	4,8	6,7	
Average daily weight gain, g	80	112	139,5
Live weight after experiment, kg	41,2±0,33	43,7±0,17	

The results in Table 1 demonstrate that the experimental animals in both groups produced significantly more work. After feeding, animals had a typical level of fatness. After weaning the lambs, when the emaciated queens were actively eating pasture to satisfy their nutritional requirements, the first sheep fattening experiment recorded the highest average daily weight gain.

Food consumption decreased in the second phase of the experiment, and the food's nutritional value—which the animals had already consumed with some discretion—also slightly declined.

The greatest increases in bodily weight are seen in animals during the summer and fall months after one month of fattening. After greatly increasing their fatness and live weight in subsequent periods, the activity of feed consumption by animals slightly decreased, and its nutritional value also decreased, which led to an increase in productivity.

Older queens were fattened for the trial, and sheep were fed extra during the winter. These older queens were separated from the production flock and divided into two groups based on live weight. One of them, the experimental one, consisting of 25 heads, was simultaneously kept in a shed with feeders and drinking bowls, while the other, the control one, consisting of 25 heads, stayed in the flock and continued to be maintained under normal circumstances—on the pasture. Winter sagebrush-ephemeral meadows, which in January totaled 3.02 c/ha and in February 1.83 c/ha of air-dry weight, were used for animal grazing. Ewes in January got subcortex in the form of compound feed at a rate of 300–350 g/head due to a lack of winter pasture. The trial will run for 69 days, from January 10 to March 20.

The control group's animals were fed a combination of concentrated feed, compound feed, barley, cotton cake, and roughage, alfalfa hay, amber hay, and carrack hay, for the duration of the study. Table 2 lists the chemical make-up of these foods.

Table 2 Chemical composition of feed, % on absolutely dry matter

Feed	Crude protein	crude fat	crude fiber	NES	raw ash
Alfalfa hay	12,0	2,18	34,13	42,70	8,96
Amber hay	10,27	1,93	37,64	40,92	9,24
Carrack hay	8,45	2,42	43,60	32,18	13,35
Barley	12,90	3,13	9,24	69,73	5,00
Cotton cake	34,50	6,26	15,70	36,44	7,10
compound feed	13,76	2,72	7,34	69,80	6,38

The following table 3 shows the nutritional value of the diet of old-age queens. [3]

Table 3 Composition and nutritional value of the daily diet of old-aged queens of the experimental group

Feed	% by mass	Cor Cad.	MJ of exchange energy	Digestible protein, g	Ca, g	P, g	Carotene, mg
Alfalfa hay	33,0	0,15	2,0	33,30	5,6	0,70	15,5
Amber hay	16,0	0,05	1,0	5,60	1,3	0,33	2,4
Carrack hay	17,0	0,07	1,0	7,14	1,4	0,31	2,1
Barley	16,5	0,19	1,7	14,0	0,35	0,53	0,03

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Cotton cake	6,0	0,07	0,05	19,20	0,40	0,82	0,08
compound feed	11,5	0,10	1,58	11,80	0,16	0,25	0,02
1 kg contains:	100,0	0,63	7,33	91,04	9,0	2,94	20,13

The nutritional requirements of these animals [3:5] during fattening were met by feeding the queens in accordance with standards for mature Karakul sheep. The animals were fed feed mixtures containing 0.97-1.00 feed units, 11.36-11.72 MJ of exchangeable energy, and 141.0-145.6 g of digestible protein during the first fattening period (34 days), and 1.7-1.8 kg/head of a feed mixture with a nutritional value of 1.07-1.13 feed units, 12, 46-13.20 MJ of metabolic energy, and 154.7-163.8 g of protein during the second period (35 days).

Fattening regime for old-age queens

Procedure	**Time of completion**
Cleaning the feeders from the remnants of feed, weighing them, releasing the remnants of water and filling the drinking troughs with water	6,00-6,30
Distribution of the morning dacha of feed mixture	6,30-7,00
Distribution of daily feed mixture	13,00-14,00
Taking animals for a walk	16,00-17,00
Distribution of the evening feed mixture	18,00-19,00

The rate of palatability of the feed mixture for the entire period of fattening in terms of air-dry matter was in the range of 90-94%.

Table 4 Change in live weight of experimental animals

Indicators	Group	
	Experienced	Control
Delivery live weight, kg	30,5± 0,38	31,6 ±0,41
Live weight at the end of the experiment, kg	45,2 ±0,43	38,4± 0,36
General gain, kg	14,7± 0,27	6,8 ± 0,22
Average daily gain, g	213	98,5

Analysis of the data in Table 4 reveals a significant increase in the live weight of the queens during their fattening. Consequently, during the fattening period, the total increase in live weight in the experimental group's animals was 14.7 kg, while this indicator was 6.78 kg, or 7.9 kg less (which is 116% lower), in the group of queens kept on pasture as a control. The experimental group's monarchs gained an average of 213 g per day each, compared to the control group's 98.5 g, or 114.5 g less.

It should be mentioned that 3 heads, or 12%, were wasted in the control group.

In this experiment, both the experimental group of animals and the control group of animals experienced a comparatively high rate of average daily increase in live weight. The existence of pregnant queens in the groups, where a portion of the total live weight is allocated to the growth and development of the offspring, can be used to explain this. Therefore, it is known that the weight of the fetus grows by more than 75% during the 150-day period of embryonic development. [6]

The ewes, on the other hand, appeared to use the nutrients more effectively while still consuming the feed combination in a satisfactory manner.

Therefore, stationary feeding of old-aged queens during the crucial grazing season (winter) enables

not only for the elimination of animal deaths but also for an increase in live weight, fatness, and, consequently, meat productivity.

Conclusion

- Analysis of the results of fattening culled sheep demonstrates that pasture fattening is a financially viable method of increasing animal productivity. It enables animal productivity to be high, not inferior to stationary fattening, even in lean years with intensive grazing and no concentrate consumption.
- The planning and execution of sheep fattening is a crucial step in raising an animal's meat output. This is especially crucial in farm environments where workers arrange every production process for animal care and maintenance based on a genuine interest in the outcomes of their efforts, thereby lowering production costs.

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