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IMPROVING THE BREED OF ANGOR GOATS AND CREATING NEW SYSTEMS

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Abstract: This article covers ideas such as the creation of a gene pool group of Angora goats and the creation of new systems, their effective use in selection work, the creation of flocks and lines based on generally accepted selection methods in zootechnics, as well as the evaluation of breeding goats and their offspring.

Keywords: selection, genepool, sorting, growth, development, productivity, live weight, exterior, index, feeding.

The purpose of the study. Hangarmaintaining the gene pool of purebred goats, creating herds and lines with high wool productivity.

The object of the study: Angor breeding goats, mother goats, and their male and female goats.

Research materials and methods Selection by the method of zootechnics, evaluation of productivity quality of goats of Angor breed.

Relevance of the research: in our RepublicDue to the increase in the population from 37 million, the demand for livestock products is increasing. Such a situation is observed not only in Uzbekistan, but also in all countries of the world. Therefore, regular supply of livestock products is an important task for livestock farmers.

In order to preserve the gene pool of Angora goats in goat breeding and rapidly increase their number, using the method of purebred breeding of Angora goats, as well as effectively using the selection methods for separating new system heads from the Angora goat herd, evaluating breeding goats and female goats according to the quality of their offspring, as well as full breeding of goats. valuable nutrition is one of the important tasks.

To effectively use the scientific achievements and experiences achieved in countries with developed animal husbandry, to create new breeds in goat breeding, to establish specialized goat farms consisting of animals with high productivity in goat breeding, and to create herds of new systems and families based on a scientific basis.

Purebred breeding in goat farming, increasing the number of goats, carrying out the selection work in the networks, using selection and sorting methods, creating new breeds, as well as organizing the implementation of purebred breeding goats with purebred goats in accordance with the sorting plan are relevant today. is considered

For this, it is very important to rapidly develop livestock industries, to pay attention to the directions of productivity of breeds, to improve the breeding of existing breeds, as well as to make effective use of internal opportunities such as scientific selection and selection and breeding, and the use of various breeding methods.

Based on today's demand, our government is paying great attention to the further development of the sheep and goat breeding industries and the creation of new systems, which are useful in the formation of goat breeding in the field of wool, tweed and meat, milk, as well as providing employment to the population. The reason is that barra sheep meat and goat's milk and wool products are useful and easily digestible dietary foods for human bodies , and are the most useful food for young babies, elderly people and patients.

Currently , there is not enough scientific research work on increasing wool productivity in the goat industry. Bringing the offspring of high-yielding Angora goats, which are used in the selection of woolly goats in particular, keeping them purebred and increasing their number, improving the breed to increase the wool productivity of goats within the breed, establishing breeding activities, growth and development of the offspring obtained from them, signs of fertility , viability, scientific and practical studies on studying the levels of coverage of the product with nutrients have not been carried out enough.

Breeding of woolly goats to increase the wool productivity of goats, to improve the quality of offspring obtained from breeding, to form their productive selection groups, and to create groups of high wool productivity of wooly goats.

Currently, it is important to solve the problem of raising woolly goats and the breeding of breeding goats, focusing on selection and breeding, starting the fertilization of female goats with breeding goats in accordance with the selection plan, and determining selection groups from high-yielding generations, studying lines and flocks of female goats on a scientific basis tasks.

Research location and methods. The researches were conducted in the angor breed flock of the "Chust steppe white water" farm in the Chust district of the Namangan region.

2 experimental and 1 control groups of 50 female goats each were formed from the female goats in the farm flock, and 50 female goats were selected for each breed.

Angora goats are undoubtedly interesting due to their biological characteristics. They grow well in different climates, are lush and late. The average duration of pregnancy is 150 days. Usually the goats ' calving takes place in the autumn season (mid-October - early November) . Goats are mainly fertile animals, but they give birth to one, and in some cases two and three (1 - 3%) goats.

Duration of full use of mother goats in farms for the production of Jundor angora goat breed is 7-8 years . The influence of external factors in keeping and feeding young goats is very large. The study conducted by us showed that the survival of Angora goats in wool goats is a short period, and in the conditions of the farm, at the age of 6-7 years, the main teeth of most goats are eroded and the teeth fall out. grass in natural pastures, topography, soil and ets. affect the productivity of more wool Angora goats. Studying the effect of goats on the unfavorable conditions of the external environment and protecting them from external influences are important indicators in the management of Jundor goat breeding. By using the method of mass selection in Jundor goat breeding, selection works are carried out in order to increase the viability of goats and increase their body size. However, due to close inbreeding, the state of crushing was observed in the external parameters of Angora goats. The main reason for this is that mistakes were made in the application of selection and sorting methods in Angora goats over the next several years.

Thus, the proportions of woolly coarse-wool goats help the body to adapt to the harsh and changing natural conditions of the external environment, that is, to adapt to scarce food conditions, to the changing climate of specific mountain and sub-mountain conditions, to quickly accumulate fat reserves in good feeding conditions, and due to them, feed in the winter overcomes its deficiency and adapts.

"Chust steppe white water"farm in Chust district of Namangan region belongs to the mountainous area of the southern region of Namangan region.This area is located at an altitude of 1800-2000 m. Almost half of the annual rainfall falls in spring, and a third falls in winter. The unevenness of the terrain contributes to the even distribution of the wind regime. Throughout the year, south - easterly winds prevail. Wind speed is 10-15 meters per second . In mountain and sub-mountain conditions, relatively high wind speed causes the soil to dry out quickly.

3 shrubs, 2 trees and more than 11 different plants grow in the pastures of Chust district. Coarse hay hay for goats is made from pasture plants grown on mountain and foothills, as well as quality alfalfa and sorghum hay from the cultivated area of the farm, and groundnut stalks from the fields of the residents.

It should also be noted that long-term experience shows that, depending on the climatic conditions, 20 years out of every 100 years will have abundant grass, 46 years will be average, and 34 years will be low, and it is noted that fodder deficiency is constantly observed.

The source of water for Jundor Angar goats is mountain springs, streams, rivers, lakes and wells, and they satisfy their water needs by drinking from them. The depth of the underground water level is 90-100 meters.

Research methods and zootechnical activities: During the research, the following zootechnical methods were used:

For the study, buck and mother goats and young goats are selected for the study, taking into account the characteristics of similarities between the woolly Angar goats, the origin of the ancestors, breed and breed, age, live weight.

The origin of the goats and mother goats in the research groups and the productivity of their descendants were based on the zootechnical records of the farm.

In the 3rd month of external lactation, the body dimensions of female goats were studied by measuring the height of the withers and hindquarters, the depth of the chest, the width and circumference of the chest, the oblique length of the body, the width of the hind femur and the circumference of the leg, and body indices were calculated.

Index	Size dependence, %
Long legs	chest height-chest depth X 100 height of rain
Elongation	oblique length of the body X 100 height of rain
Chest pain	chest width X 100 chest depth
Height	The height of the stump is X 100 height of rain
Bony	leg circumference X 100

	height of rain

The live weight of female goats was determined by weighing them individually on a scale in the third month of lactation. Fertility characteristics of female goats were evaluated by studying the duration of estrous and service periods, the period from weaning to farrowing, the period between calvings, the rate of fathering at the first calving, and the calving index.

Goat feeding rations were developed and fed taking into account the available feed types in the experimental farms.

In goats, the feature of covering the product with feed was studied according to the method of V.E. Nedava (1966).

The exterior and body indices of goats were studied by generally accepted methods.

The economic efficiency of the studies was carried out by determining the difference between the cost of each head of goat and the output obtained from it.

Results achieved in research

In accordance with the program, in order to preserve the gene pool of Angora goats, create herds and lines with high wool productivity, scientific research work was carried out at the farm “Chust steppe white water”in Chust District, Namangan Region.

Angora goats were selected for 2 head of offspring from high wool productivity and 2 research mother goat groups and 1 control group of 50 heads were formed.

The live weight of the 2.5-year-old bred bucks selected for the system was 46-48 kg on average, and the body dimensions of the young Angora goats born from the system's offspring were taken. Height, width, girth measurements and live weight measurements of body parts were obtained.

Angora goats of the farm were formed from young goats brought in 2021. The number of goats was increased to 320 in 2023. It was determined that Angora goats belong to the elite and I class. Today, two flocks of female goats have been formed from the goats. Breeding bucks were mated to each herd according to the selection plan.

Information on the creation of gene pool goat lines is given below.

№JF 77159.Angormale goat, live weight 48 kg, wool cut 4.7 kg

№JF 77990.Live weight of Angor male goatis 50 kg, wool cut is 5.3 kg.

In the selection and sorting of Jundor Angora goats, they are individually evaluated and divided into classes based on the results of inspection.

The founders of the system were 2 goats with high wool productivity from the herd of Angora goats at the “Chust steppe white water”farm.

Below is a description of Angora breed foals.

JF 77159 has a white appearance, strong and strong constitution, wide and long body, 66cm at the withers, medium length and size head, horns, broad forehead, medium size ears, medium length neck, broad and deep chest, straight back. located, bones are well developed, fur is thick and the skin is thin and flexible. The live weight of a woolly taka is 46 kg, the length of the wool fiber is 18 cm, the density is 70 percent, and the amount of wool is 4.8 kg.

№. JF 77990 has a white exterior and medium size, strong and strong constitution, wide and long body, 68 cm height at withers, medium size and long head, horns, wide forehead, medium size ears, medium length neck, wide and deep chest, the back is in a straight line, the bones are well developed, the coat is thick and the skin is thin and elastic. The live weight of the buck is 48 kg, the wool is 5.3 kg, the length of the wool fiber is 17 cm, the density is 65 percent constitutes.

The external appearance of both takas is similar, especially the woolen properties are similar, but they differ in the luster and staple-likeness of the wool fiber. We will see these cases clarified in the following sections.

2 experimental and control groups of 50 heads each were formed from the female goats in the farm flock, and 50 female goats were selected for each breed.

The research groups were described as follows: female goats are white in color, have a strong constitution, have an average body, are wide and long, have an average height of 58-68 cm, have a medium-sized head, the horns are turned back, the forehead is wide, the ears are medium size, neck of medium length, chest wide and deep, back in a straight line, bones strong and well developed, strong, forelegs set straight, hooves strong, muscles well developed, coat long and thick, skin thin and elastic, live weight - 35-40 kg, female goats were selected that gave birth to 105 goats for every 100 female goats. Selection-breeding work carried out in the Jundor goat herd, purposeful organization of selection and sorting of goats and mother goats, creation of new lines and families of goats with high wool productivity are among the urgent tasks facing science.

Taking into account the above, along with the creation of lines and flocks of high wool productivity from the descendants of Angora goats, it will allow for more rapid development of wool goat breeding.

Feeding Angor goats

Depending on the economic possibility of feeding the breeding goats and female goats in the study, a feeding ration consisting of various feeds, including pasture hay, alfalfa hay, walnut hay, groundnut hay, grain cereal and soft fodder was created and feeding was organized according to it (Table 1).

Table 1

Feeding ration of Angor breeding male goats, kg

Food types	**Amount of feed, kg**	**O.b.**	**Daily, o.b.**	**%**
Alfalfa hay	0.5	0.46	0.138	11.39
Meadow hay	0.5	0.37	0.148	12.22
Groundnut hay	0.5	0.45	0.135	11.14
Meadow grass	3	0.17	0.51	42.11
Red carrot	0.5	0.11	0.055	0000
Omukhta feed	0.350	0.80	0.280	23.12
Chicken egg	1 pc			
Salt	0.035	-	-	00.2
Total:	-	-	1.211	100

Breeding goats and female goats were fed 12% pasture hay, 11% alfalfa hay and peanut hay, 23% silage and grain feed, 5% cereal grains, and 42.11% pasture grass, the level of satiety was 1,211 food units. . Also, depending on the condition of the farm and the breeding season, additional changes were made to the daily ration of horses with 1.2-1.3 feed units. 60 days before the breeding season, it was organized to give each horse up to 0.5 kg of carrots, one chicken egg and micro and macro elements.

The stock of feed on the farm was used for feeding female goats, and it was taken into account that the composition of the ration consisted of pasture hay 14.22%, groundnut stems 12.84%, pasture grass 51.52%, forage 21.42%, and table salt 0.03 grams.

Table 2

Feeding ration of female goats, kg

Food types	Amount of feed, kg	O.b.	Daily, o.b.	percentage
Meadow hay	0.4	0.37	0.148	14.22
Peanut hay	0.3	0.45	0.135	12.84

Meadow grass	3.0	0.17	0.51	51 , 52
Omukhta feed	0.150	0.80	0.12	2 1.42
Salt	0.030	-	-	-
Total:	-	-	0.913	100

When feeding young goats, the composition of the ration included pasture hay 13.38 percent, groundnut stems 0.13 percent, pasture grass 76.52 percent , and 9.04 percent forage and table salt 0.01 grams.

Table 3

Feeding ration of young goats, kg

Food types	Amount of feed, kg	O.b.	Daily, o.b.	%
Meadow hay	0.2	0.37	0.074	13.38
Peanut hay	0.1	0.45	0.0045	0.13
Meadow grass	2.5	0.17	0.425	76.85
Omukhta feed	0.05	0.0	0.05	9.04
Salt	0.010	-	-	
Total:	-	-	0.553	100

The fodder ration of breeding goats was given in an amount equal to 1.2-1.3 fodder units, and 0.91 fodder units were provided to pregnant goats. The composition of the ration consisted of pasture hay 14.08 percent, ground nut hay 12.84 percent, pasture grass 48.5 percent, and forage 11.42 percent. Raw protein, fat and macro elements in the feed ration were balanced.

In the diet of young goats, 0.2 kg of pasture hay, 100 grams of groundnut stems, 2.5 kg of pasture grass, 50 grams of dry fodder and 0.02 grams of additional salt were given.

When breeding goats, female goats and young goats are fed on the basis of the above-mentioned diet, live weight of goats, female goats and goats increases moderately, growth and development of goats and productivity indicators increase moderately.

Types of nutrients in the ration of male goats,%

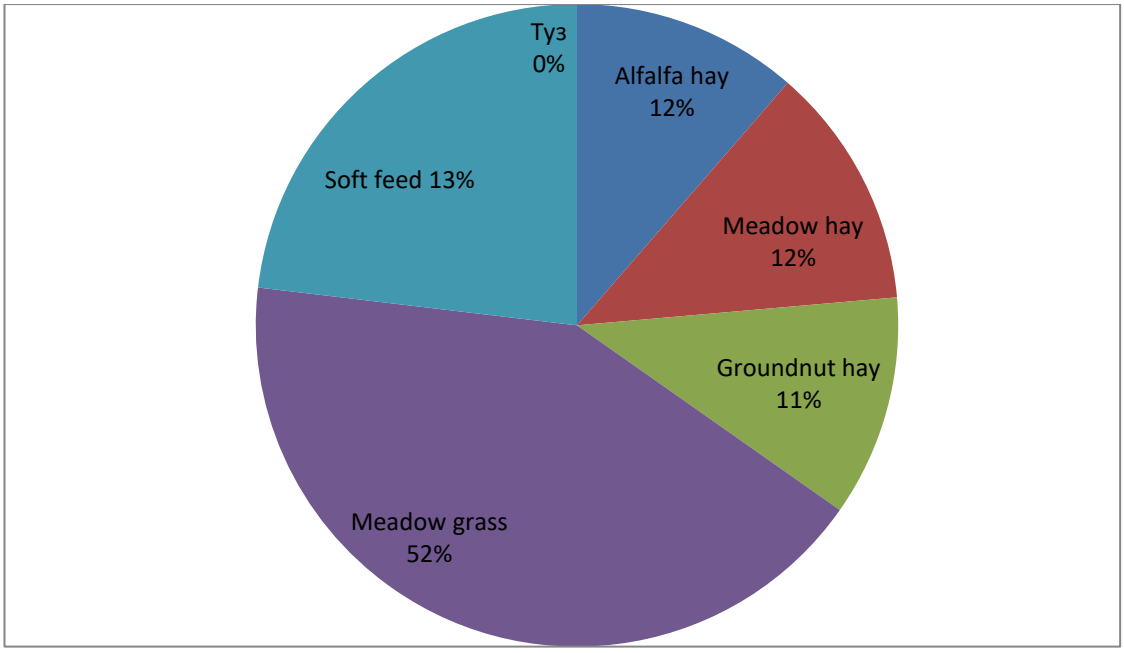

Figure 3. The composition of the feeding ration for breeding male goats, %

Types of feed in the ration of female goats,%

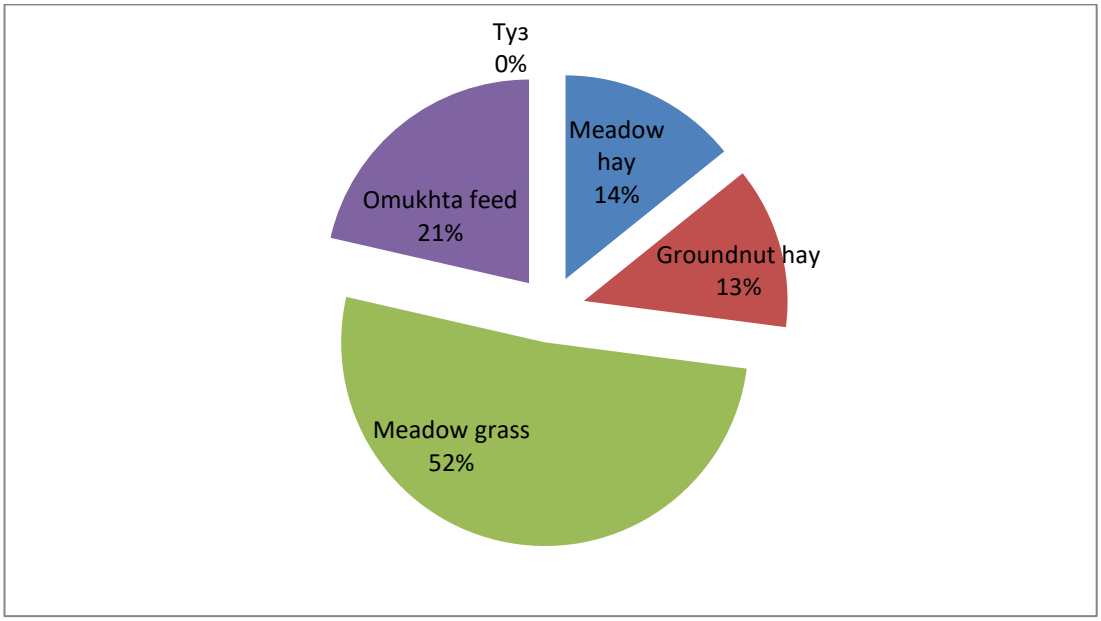

Figure 4. Feeding ration of female goats, %

Live weight of breeding male goats of more wool Angor breed

Live weight index is one of the main useful economic indicators in Angora foals and is important in determining productivity indicators. With this in mind, live weight characteristics were studied in breeding bucks and mother goats.

Table 4

Live weight and wool productivity of breeding male goats, kg

Nickname	Live weight, kg	Weight, kg	Class
JF 77159	48	4.7	Class I
JF 77990	50	5.7	the elite

JF 77159 and No. JF 77990 from high-yielding stallions of the Angora breed after selection work in the farm herdchosen for the founders of the lineand their live weight and wool was evaluated according to the requirements of the breed standard, and the live weight of 2.5-year-old foals was 48-50 kg on average, and their wool was 4.7 and 5.3 kg.

Live weight of Angor female goats

Angor breed goats with white exterior color, strong constitution, average appearance, wide and long body, average height of withers were selected (Table 5).

Table 5

Live weight of Angor female goats, kg

Groups	p	M±m	S v, %	M±m	S v, %
	In the beginning			II- in childbirth	
Group I	50	34.81±0.48	0.83	42.81±0.48	0.83
Group II	50	33.82 ±0.45	0.77	43.82 ±0.45	0.77

Control group	50	33.22 ±0.55	0.73	40.3.22 ±0.55	0.73

2 experimental groups and 1 control group were formed from 31 female goats selected for the study. Their average live weight was 34.8-35.8 kg in experimental groups 1 and 2 as well as the live weight of control group goats. It was 33.22 kg.

Productivity of young goats

In the origin of the Angora goats, human factors have turned this type of wild animals into pets for thousands of years, and they have developed very useful characteristics and spent a lot of work on them. Angora goats have important biological characteristics that make them widely distributed, highly useful, and highly adaptable to different climatic and economic conditions. Productivity orientation differs from other goat breeds in that it reproduces quickly, has a high level of rapid maturity, and has a relatively good consumption of forage in desert and mountain pasture conditions.

Along with the general biological characteristics noted above, there are breed-related differences in goats. Goats of the same breed are adapted to harsh continental climatic conditions, desert and semi-desert, mountain and sub-mountain conditions, as well as high-humidity conditions provide a natural selection for different ecological regions.

Productivity trends of wool Angor goats, their ability to breed, adaptability to rapidly changing conditions and other biological characteristics are inextricably linked with live weight.

More wool goats are considered to be able to store the most nutrients in their bodies. As live weight increases, goats have been found to store relatively more in their bodies, which they use up when they are starving and in a shortage of feed.

Angora goats have a relatively healthy, strong body structure within the herds of this breed.

Thus, the live weight of goats is an important indicator of economic utility. This condition provides an opportunity to study the age-related variation of the live weight of the goats born.

Live weight of young goats of more wool Angora breed

According to a number of goat experts and sexologists, the live weight of goats at the time of birth is one of the most widely used signs that recognize the breed and speed and specialized productivity of goats.

All factors that affect the development of their offspring also have a significant effect on their live weight. Also, the effect of the development conditions of the Angora goat fetus on the body is one of the important biological indicators.

In the studies, the data obtained on the live weight at birth of goats of the more wool direction are presented in table 6 below.

6 - table

Live weight of goats at birth, kg

Groups	Sex of young goats	Number of heads	M ± m	δ	S v, %	**%**
Group I	Female	1 5	2,6 ±0.03	0.1 0	3.8	100

	Male	16	2,9 ±0.03	0.11	3.5	100
Group II	Female	1 5	2,5 ±0.03	0.1 0	3.8	100
	Male	1 5	2,7 ±0.03	0.1 0	3.8	100
Group III	Female	1 5	2,6 ±0.03	0.1 0	3.8	100
	Male	1 5	2,9 ±0.03	0.11	3.5	100

R>0.999

The analysis of tabular data shows that birth goats have different live weights, which are related to the prenatal health and care conditions of their mothers, and differ in the sexes of born goats.

At the same time as the sharp decline of pasture plants in the spring months, it seriously affects the rapid development of the embryo. As goats' nutritional needs increase, their body's energy reserves are rapidly depleted. This condition is observed in female goats, as well as in young goats. Germination of ephemerals and ephemerals in the spring months, which certainly has a positive effect on the fatness of goats and the growth of the embryo. and this factor plays an important role in the formation of live weight at birth of goats.

In the studies, it was found that the live weight of the male goats compared to the female goats was 0.3 kg or 15%. Comparing the live weight of these born goats and male goats, the difference between the sexes is 0.3 kg . It is observed that the live weight of male goats was superior to that of female goats by 0.3 kg respectively.

From the information given above, it is known that the process of growth in the body occurs in all periods of life. Growth refers to the quantitative increase of organ tissues and the whole organism during ontogenesis, and it is also described by the rate of increase in the live weight of existing cells, which depends on the genetic characteristics of the organism, growth spurts of goats. The growth of capricorns is not uniform in all periods, the period is divided into stages that differ in quality.

The non-uniformity of growth of goats during growth periods has also been observed in the studies of many scientists. Below is the live weight of the kids at weaningIt is given in table 7 .

7 - table

Live weight of young goats at weaning (4.0-4.5 months old), kg, P=25

Groups	Sex	n	M ± m	S v, %	**%**
I - experimental group	Female	25	13.7±0.08	2.9	97.1
	Male	25	14.1±0.08	2.8	83.4
II - experimental group	Female	25	12.9±0.06	2.3	91.5
	Male	25	13.4±0.08	2.9	88.7
III- control group	Female	25	12.95 ±0.0 8	2, 5	90 .5
	Male	25	13.54±0.0 7	2, 8	8 9.6

R>0.999

Mentioned above, the goats born at the age of 4.0-4.5 months gained 12.9±0.06 and 15.1±0.03 kg, therefore, at the same time, the lowest value was given to females and bucks born in April. was observed, i.e. 12.9±0.06 kg in goats of II and III groups and 13.4±0.08 kg in male goats. The growth of the live weight of the born goats at 4.0-4.5 months was the

best indicator. According to these indicators, the ratio of the duration of the lambing period in female and male goats born in March was 2.9 and 6.6 percent, respectively. It was observed that this difference was 8.5 and 11.3 percent, respectively, in comparison with goats born in April.

During the research, the development of the live weight of one-year-old, i.e., 12- and 18-month-old goats was studied, as well as confirming the previously noted laws, i.e., it was observed that the goats born in April grew faster compared to the goats born in the late period (Table 8).

Table 8

Live weight of young goats at 12 and 18 months, kg

Groups	Sex	12 months old			18 months old	
		n	M ± m	S v, %	M ± m	S v, %
Control	Female	15	12.7 ±1.5	2.9	21,1 ±2,7	2.9
	Male	15	14,3 ±1,8	2.8	26,4 ±2,9	2.8
Experience	Female	15	13 ,1±1,3	2.3	22,4±2,5	2.3
	Male	15	15,3 ±1,5	2.9	25,8±2,8	2.9
Experience	Female	15	12 ,8±1,1	2, 5	21.0±1.9	2, 5
	Male	15	15,8±1,3	2, 8	25,6±2,2	2, 8

R>0.999

Also, these indicators are higher in Angora goats than goats in the direction of wool and wool production . level is determined .

For a more complete description of the growth rate of takachas, the absolute growth of goats by growth periods is calculated and the data is presented in Table 9.

9 - table

Absolute increase in live weight of goats, kg

Groups	Sex	From birth to 4.0-4.5 months	From 4.0-4.5 months to a year	in the period of 12 months
Group 1	Female	11.2±1.2	6.6±0.4	9.4±0.8
	Male	12.0±1.3	6.2±0.3	12.1±1.3
Group 2	Female	11.1±1.1	5.4±0.2	8.3±0.6
	Male	11.4±1.2	6.2±0.3	9.5±0.7
Group 3	Female	9.8±0.9	4.9±0.2	8.2±0.6
	Male	10.2±0.9	5.4±0.4	9.2±0.8

R>0.999

The analysis of the data presented above confirms the above-mentioned law, i.e., goats born in the period of lambing grow faster than goats born in the period of late lambing.

Thus, to study the variation of live weight with age and to measure the body size of woolly Angar goats in the foothills of the farm “Chust steppe white water” Chust District, Namangan Region, due to the fact that the goats eat pasture plants well in mountain conditions and digest goats, their 12 confirms that it helps to increase the speed up to the month.

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