BREEDING LIVESTOCK MANUAL

MINISTRY OF AGRICULTURE AND ENVIRONMENTAL PROTECTION OF TURKMENISTAN

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The manual is intended for private owners and farmers engaged in breeding livestock farming in our country, and it will provide information on the rules and regulations for raising, feeding, and keeping farm sheep, as well as on protecting them from diseases encountered in farm livestock.

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INTRODUCTION

During the Prosperous Epoch of Powerful State, great reforms initiated by the President of the country in various spheres of the country's economy, including agriculture, science and education, are spreading widely at the present time.

In every speech, the President of the Republic of Azerbaijan emphasizes the scientific basis of development of agriculture, including the livestock industry, which is of great importance in ensuring food security in the country, and emphasizes the main tasks ahead in this field.

In the "Program of socio-economic development of the country in 2019 - 2025 of the President of Turkmenistan" in order to satisfy the needs of our population for livestock products, it is related to increasing the number of cattle, carrying out their breeding and selection work, increasing their productivity and strengthening the fodder infrastructure. specific tasks were set during the implementation of the work.

Based on these tasks, major reforms will be carried out in the field of farming. Animal husbandry is considered one of the main branches of our country's animal husbandry. The unique natural climate, pasture and fodder conditions of our Sunny Land are very favorable for the successful farming of this industry.

Compared to other livestock industries, livestock farming is not only profitable, but also differs in the diversity of its products.

In addition to carrying out breeding and selection activities in the livestock industry, it will be important to improve the technology of raising cattle and to apply appropriate measures to protect them from diseases. Taking into account this situation, the guide will give advice on the breeds of cattle grown in our country and their breeding, the conduct of breeding-selection activities, the implementation of seasonal measures, the use of pastures and fences throughout the seasons, and the protection of cattle from infectious and infectious diseases.

This guide was compiled based on the results of the research conducted by the scientists of the Livestock and Veterinary Research and Production Center according to the natural conditions of our country and the zootechnical standards used in animal husbandry.

LIVESTOCK GROWN IN OUR COUNTRY

In our country, black and yellow breeds of sheep, as well as a small number of goat sheep are bred. Garakoli sheep are kept in the population regions of our country, while saryja sheep are kept in the state ownership, mainly in Ak Bugday, Derveze, Gökdepe and Baherden districts of the Ahal region, and in private ownership in the population regions. Koyten sheep are raised in the mountain pastures of Koytendag etrap of Lebap province.

Also, three breeds of goats are bred in our country: local black goats that produce cheese, white goats, and goats with yellow breeds.

In Turkmen, sheep are called sheep and rams according to their gender. Naming of sheep according to the Turkmen official document: lamb - up to 6 months of age; electric - from 6 months to 1 year; child - from 1 year to 2 years; Pride - from 2 years to 3 years; man - from 3 years to 4 years; preschool age - from 4 to 5 years; infant - from 5 to 6 years; black (unwashed) - from 6 to 7 years; does not breed (does not gain weight) - from 7 to 8 years; Free - 8 years and older.

From the age of six months of the sheep, the age of the cattle shall be preceded by a word indicating the sex. For example, a male bull or a bull ram, a male bull, a male ram or a male ram, a male bull, a male ram. From the age of two, the ewe will be named after its age. If it is a male animal, then the word "ram" is added. For example, a ram, a ram or a sheep, a ram, a ram, an old sheep. If the ram is shorn, then the word shorn is added to its age. A mowed tree, a mowed tree, a mowed lawn.

Goats are named according to their sex and age, similar to sheep, and male goats are called goats, mother goats or male goats. Infant - regardless of gender, up to 6 months of age; chebish - from 6 months to 1 year, regardless of gender; A male goat at the age of one is called a male goat, and a male goat at the age of one. At the age of three years old goats are called young goats, and when they are older than three years old they are called big goats and big goats. For male animals slaughtered according to age: from 6 months to 1 year - slaughtered cub or male; at two years of age - a goat or a young goat; at the age of three and above - it is called azman.

Black-breed sheep. Karakoli sheep are the oldest breed of sheep, created by nature and whose origins are legendary. Questions about the history of the origin of wild sheep will never cease to be the focus of scientific attention. In this regard, scientists of our country and foreign countries will put forward different opinions and assumptions that cross each other. In general, in September 1967, the participants of the First International Conference of Garakoli in Vienna, Austria, unanimously agreed that the Karakoli breed was created by Turkmen and Uzbek herdsmen in Central Asia through population selection.Taking into account the natural weather and pasture conditions of our country, the keeping of Karakoli sheep was divided according to their color. Black and gray sheep are bred in districts of Ahal, Dashoguz, Mary provinces, black sheep in Balkan province, and black and brown sheep in Lebap province.

Features of the biology of Karakoli sheep. The genus Karakoli is native to the semi-desert and semi-arid climates of Central Asia. Breeding of these breeds in these conditions for centuries has had its effect on their body structure, physiological

and biological characteristics. The Karakoli sheep is well adapted to the hot and dry desert and semi-desert conditions of Turkmenistan.

Picture 1. Garakoli sheep with gray coloured lamb

Therefore, these sheep are the most suitable breed for efficient use of desert and semi-desert, low yield pastures. The biological uniqueness of Karakoli sheep is the harmony of body structure, strong body, high adaptability to environmental conditions, tolerance to bad conditions and high quality of products. Karakoli sheep have developed skin glands that play an important role in temperature regulation. If they are not exposed to strong windy days, they will enjoy the heat of summer and the cold of winter. Cold, wet weather is unsuitable for them. They can survive by drinking the mineralized, salty waters of desert and semi-arid plains. Sheep are zoologically long fat-tailed and industrially coarse-wool, column-oriented. The Karakoli breed will produce an average of 105-110 lambs per 100 ewes. The highest lambing ability will occur at the age of 4-5 years.

Picture 2. Flock of garakoli mother sheep

These sheep can be used for an average of 6-7 years in the farm, and up to 8-10 years in serious conditions. The live weight of Karakoli sheep is 4.0-4.5 kg for newborn lambs, 4.0-4.5 months old (selection period) 25.0-28.0 kg, adult ewes 45.0-

50, 0 kg, lambs weigh 60.0-65.0 kg. Karakoli sheep are coarse-wooled and are sheared twice a year: in spring and autumn.

Average wool yield is 2.4 kilograms per head. The flocks are shorn for the first time at the age of 6 months, and 0.8-1.2 kilograms of fine wool will be taken from each of them.

A variety of colors and hues, with beautifully shaped variegated columns, are characteristic of newborn Karakoli lambs. The Karakoli breed is distinguished by its ability to produce meat, wool, milk and leather raw materials, in addition to its valuable Karakoli stalks.

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Picture 3. National dress from skin of sheep

Breeding of Karakoli sheep. Breeding work in Karakoli is aimed at improving the breeding quality and productivity indicators of Karakoli sheep. In the breeding process, the best sheep are selected for breeding, and the aim is to get lambs with high quality. For this purpose, it is necessary to achieve a suitable pairing of high-quality breeding rams and ewes. In order to achieve good results in breeding, the appearance and constitution of the animals, the shape of the column, color and shade, the number of births, the sex, the age and the conditions of keeping them in the breeding season should be taken into account. Depending on the above problems, agricultural households will be divided into breeding factories, breeding farms, farms, and commercial farms specialized in the production of certain colored (interesting) varieties. In each of the farms, the breeding work is carried out in a certain direction based on the plan.

The main purpose of holdings is to breed and grow bred stock and to supply bred stock and commodity farms.

The main goal of commodity farms is to breed high-quality, black-colored, long-eared, pink-beaned lambs with ribs and dark-beaked lambs; It consists of

breeding grey-colored, sky-colored, semi-lunar plum-colored lambs, gray-colored silver-colored, golden-colored, diamond-colored, and other precious-colored lambs with colored and colored collars and breeding cattle with high meat and fat productivity.

Quality assessment (auditing) of Karakoli lambs should be carried out on a regular basis. Giving lambs quality value is theirs:

- it will be the basis for assessing the quality of fertility and productivity. As a result of the quality assessment, the selection and pairing of goods is carried out more precisely. All purebred lambs will be graded within the last 2-3 days of birth. A distinction is made between individual and public methods of grading lambs: This will be a full and abbreviated version of the overall quality rating. When the individual quality score is fully awarded, the quality of the lamb column will be determined in detail and recorded. The shape of the sheep, the size, color and shade of the lambs, their origin, their value, the purpose they will be used for, etc., will be recorded. The full assessment of individual quality will be carried out on selected lambs of breeding factories and breeding farms, and on selected lambs of the first grade. An abbreviated form of individual quality scoring is done when lambs are evaluated for progeny quality. When evaluated in this way, additions can be added to the indicators registered in the selection according to the purpose of the breeding work and the characteristics of the herds;

- when giving a public quality assessment, lambs are divided according to the shape of the column, the size of the kidney, and the quality level, and the colored lambs are divided according to the lightness and brightness of the color. In commodity farms, selected and grade I lambs will be given a mass quality value. If the quality of the rams in the commercial herd has been checked throughout the generation, then the evaluation of the quality of the sheep is done in a shortened form. The grade of quality given to the lamb is determined by taking the appropriate amount from the ear with the help of a pair of shears, in accordance with the requirements of the inspector. Carrying out breeding-selection work in Karagom, assessing the quality of the animals with its genetic structure, selecting healthy young animals with beautiful appearance, high yield, strong body, and student mating will lead to the improvement of the seed gene pool. It is necessary to evaluate the quality of Karakoli lambs according to the "Fundamentals of breeding work in Karakoli and the indicator of quality assessment of lambs" and to strictly follow the requirements stated in it. The research work conducted on the appropriate technology of meat and leather production in our country's farming will be distinguished by its effectiveness (Y. Veliyev, 2009-2012). That is, after mowing, animals of the experimental group were kept in pasture conditions from September to the end of November. Males of the experimental group were slaughtered for meat at 8 months of age (at the end of November). This will make it possible to quickly produce young meat with high nutritional value and marketability and high marketable skins. More precisely, compared to cattle reared in pasture conditions, the meat and fat productivity of cattle kept in pasture conditions will be 19.9 percent, lean meatness index 8.0 percent, and the energy value of the meat will be 1.3 times higher. After all, it will be obtained the highly marketable leathers with a low weight

per square unit, a square yield of 2.4 percent. Additional feeding of the experimental group's heifers with domestically cultivated grasses from the fall will lead to faster growth of their meat tissues, consumption of less feed unit per unit of growth, and a decrease in the value of the product itself. The slaughtering of the goats during the 8-month period, that is, before the winter, will help to free up pastures and ease the worry of wintering livestock. The results of the research work are that when breeding male goats of Karakoli breed for meat, i.e., when the technology of pasture conditions for growing them for meat is established in livestock farms and private farming farms, it is industrially based, fast moving and efficient in the production of young sheep meat and leather skins. can be used as a technology.

Yellow-bred sheep. Meat and fat products, semi-fine white wool for Turkmen carpets and different types of sheep skins are obtained from Saryja sheep. Saryja sheep is a breed created by the Turkmens through intelligent methods of public selection during the era of Turkmenistan. According to prominent Turkmen scientists, the creation of the Sarija breed can be explained by the following conditions: firstly, the breeds used to create the breed (Turkmen and Meimene); secondly, the crushing effort of population selection; and thirdly, there will be natural-air and grass-rich pastures of the South-Eastern Karakum.

In his book "Turkmen alabayi", the President of the Republic of Turkey mentions this: "One of the people who worked hard to perfect the Turkmen alabayi is Yazberdi Esensopy's son, who worked hard for twelve years in 1857-1869 and created the famous "saryja" dish.". Saryja sheep are raised in the peasant associations and private households belonging to Ak Bugday, Gökdepe and Baherden regions of Ahal region, as well as in private households of other provinces.

Picture 4. Saryja breed sheep

Biological characteristics of yellow sheep. Saryja sheep possess valuable biological and economic properties. These animals, which are well adapted to the pasture conditions of our country, will be bred for the production of semi-fine white

wool, which is often found in the weaving of Turkmen carpets, as well as high-quality meat products.

Saryja sheep belong to the semi-wool, meat-oriented group from the zoological point of view, and in terms of production, they combine the possibilities of producing meat and semi-wool white wool. The research conducted by the scientists of our country in this field showed the following results. After weaning from their mothers (at 4 months of age), the male calves of this breed are kept on pasture for 4 months and fed with additional feed. At 8 months of age, their live weight is 43.0-44.0 kg, and their body weight is 19.0-19.5 kg. per kilogram, and the total weight of the meat will reach 22.0 - 23.0 kilograms. The white semi-wool wool of saryja sheep will serve as a rare raw material for Turkmen carpets. Turkmen carpets are woven from the spring wool of these sheep. This is because the length of the wool in the spring wool is high, which will allow the raw material to be spun. In addition, the fact that the weight of the yellow wool (up to 80 percent) is made of milk will give the raw material its softness and chewiness. Spring wool rugs will not fade and retain color for a long time. The fact that wool is white makes it possible to dye it in different colors.

Picture 5. Wool of Saryja sheep

The average indicators of the amount of wool sheared from purebred yellow sheep in research conducted over many years are: 4-5 month old male lambs - 1.1-1.2 kilograms; 13-month-old babies - 2.6-3.1 kilograms; ewes - 2.5-3.0 kilograms; large lambs - 3.5-4.0 kilograms. Wool productivity of sheep is directly related to the breeding level of the cattle and the fertility of the pastures. Yellow sheep are shorn twice a year: in spring and autumn. The net yield of spring wool of Saryja sheep is on average 50.0-56.0 percent, and the yield of autumn wool is on average 60.0-70.0 percent. The average yield of pure wool is 65.0 - 75.0 percent. But these indicators will be affected by the conditions of keeping sheep, the type of pastures, and their washing before shearing. The woolly skins of Saryja sheep are also considered a

valuable raw material. Among the people, the wool skins of older sheep or reared sheep are often used for drinking, making clothes made of wool and wool. The coat color of the lambs at birth will be light-brown, brown and black-brown. From the skins of the yellow goats, mainly brown-colored pelts are made. In general, the color of lambs from the yellow breed will be a light brown color as shown above from birth to 4-5 months. But after the foals are first sheared (at 4-5 months) and the white wool is removed from them, the newly grown wool will be white in color. That's why the woolen coat of the poossons, made from the woolly skins of older sheep, is white in color. Studies on the commercial quality and technological properties of the wool skins of Saryja sheep have shown that this valuable raw material can be used not only for the preparation of drinks and posuns, but also for the preparation of fur leather products (which are worn with the outer layer of wool).

Table 1

Requirements of the national standard for performance indicators of yellow sheep

A group of sheep	The smallest indicators are in kilograms		
	Alive weight	Weight of wool	
		Physical weight	Washed wool
4-5 months ram sheep	30-35	1,1-1,3	0,8-0,9
4-5 months ewe lambs	28-33	1,0-1,2	0,7-0,8
13 months old rams	45-50	2,9-3,1	1,6-1,7
13 months old lambs	40-42	2,6-2,8	1,5-1,6
Adult rams	70-75	3,5-4,0	2,0-2,2
Mother sheep	50-55	2,5-3,0	1,4-1,6

These ewes will rank average during their lambing period. Analyzing many years of scientific and production data, it was found that their biological potential during lambing is 105-110 lambs per 100 ewes. Due to the fact that this indicator is reduced to the current selection, 85-87 lambs will be obtained for every 100 ewes.

Picture 6. Flock of Saryja mother sheep

Yellow sheep can transmit their symptoms stably to their offspring. This breed has been recognized as a breed improver of coarse and semi-fluffy long-tailed sheep bred in Central Asia and Kazakhstan. With the participation of Saryja breed sheep, the meat and wool Tajik breed was created in Tajikistan, the semi-fine wool, Kurkman Alay breed in Kyrgyzstan, and the Kargaly and Akdepe breed groups were created in Kazakhstan. Currently, the raven and akdepe breed groups are recognized as semi-woolly, tailless Kazakh breeds. Saryja rams have been used extensively to improve the quality of wool of soft-wool sheep in the Republic of Uzbekistan, Tuva and Altai Mountains of the Russian Federation, and the Republic of Mongolia.

In our view, Turkmen's sarija sheep religion is not distinguished by its multifaceted and high-quality productivity, but it will be a precious gem-treasure in the gene pool of the world economy.

Breeding performance in Saryja sheep. The main purpose of carrying out breeding work in Saryja sheep is to improve the breed of these sheep, that is, to increase their wool productivity, to improve the quality of wool and to increase the meat-fat productivity. In order to reveal the high productive capacity of cattle, selecting and pairing them appropriately, breeding cattle with high breeding and productive value will be the basis of breeding work.

Breeding work should be carried out in each of the households engaged in animal husbandry. In large livestock farms, dividing cattle into breed groups, forming herds according to the age and quality level of ewes, and based on these, creating breeding herds or a breeding farm in the farm is the main condition for carrying out breeding work.

Inspections will be conducted to select the best animals for breeding quality and productivity, and to remove the bad ones from the herd. Ewe grading is the determination of breeding value based on a comprehensive assessment of their appearance, constitution and productivity. According to the breeding value of the

sheep based on the evaluation, the quality (class) levels are given: elite, I and II quality levels. Goods that do not meet the quality standards will be rejected.

Yellow ewes will be awarded a 13-month breeding season in the spring months before shearing. Their wool quality will be determined throughout the spring. After autumn shearing, their live weight will be determined by weighing.

Breeding stock aged 10 years and over, if the breeding business has just started in the farm all will be graded. Starting from next year, all large cattle that have not been graded on the farm, as well as 13-month-old lambs and lambs, will be graded. In addition, the two-year-old choice and Class I working rams will be graded again and re-graded. If there are any among them who are not worthy of his level of quality for any number of reasons, they will be abandoned and removed from the herd.

When the young lambs are selected (separated) from their mothers, they should be individually examined and those that meet the standard requirements of their performance indicators, exterior, constitution and body structure should be collected separately. The shepherds are entrusted with the responsibility of taking care of the herds of the herds, and they have to take care of their pastures and fodder.

The exterior, constitution, coat color, length and thickness of the wool, live weight, tail size and shape of the selections will be taken into account, and a general evaluation will be made and recorded in the journal.

Diseased and severely degraded animals will not be graded.

There will be both individual and public forms of grading sheep. Sheep belonging to the selection and I quality level, as well as breeding lambs intended to be sold to other farms and to supplement the breeding lambs of the farm, will be given an individual quality price.

When an individual grade is given, each cow is given a unique number and a detailed record of their grade marks is made in a separate grade journal.

Individual quality assessment of yellow-bred sheep will be done according to the following indicators: 1) joy; 2) type; 3) wool color; 4) wool dryness; 5) length of wool; 6) density of whey; 7) thickness of wool along the grain; 8) wool quality level; 9) constitution; 10) tail volume; 11) tail shape; 12) amount of spring wool; 13) amount of autumn wool; 14) amount of annual wool; 15) Live weight at 13 months.

A pedigree record (card) is issued to each sheep that has been given an individual quality rating, and information about the age, origin, productivity, indicators of the quality rating and the quality of the progeny obtained from them is written on it.

A public quality assessment will be given to the population of breeding stock that is not eligible for individual assessment. In general quality grading, sheep are graded based on an overall assessment of each animal's appearance and body structure as well as productivity.

The quality level assigned to the sheep will be determined by taking an appropriate amount from the ear according to the viewer's requirements with the help of special shears. It is necessary to evaluate the quality of Saryja sheep in accordance with the "Basics of Breeding and Quality Assessment of Saryja Sheep" and strictly follow the requirements stated in it.

Color of wool and coat at birth in yellow-bred sheep. Lambs from yellow-bred sheep are usually light-brown, brown and black-brown in color at birth. From the age of 25-30 days, the pigment (melanin) that gives color to the growing wool will be cut off. After 5 months of age, i.e. after the yellow wool is shorn, the white wool fibers will start to grow. After moulting, their undercoat will be white, and the color of their head and foot coverings will remain the same color as they were born (light-brown, brown or black-brown).

At the time of lambing (in October) the yellow breeding lambs should be mated in the following ways, depending on the color of the coat of the head:

- in order to improve the quantitative and qualitative indicators of wool productivity (length, softness and purity of the wool) of yellow-bred sheep, the color of the hair covering of the head should be light-brown.

- in order to increase the live weight and meat productivity of yellow-bred sheep, during the lambing season, the black-brown head coat color should be used;

- in case of increasing the number of yellow-breed sheep, which are intermediate in terms of wool and meat productivity, in the breeding season, breeding rams with brown head hair color should be used.

When the yellow rams are used in the mating process depending on the color of the hair covering of the head and feet, in accordance with the zootechnical rules of removing the rams, the rams will be fed to 25-30 ewes per ram. They will join the flock of ewes in the first ten days of October, and the breeding season will last 40-45 days.

When rearing sable sheep for meat, the colors of wool (light-brown, brown and black-brown) at birth, and the color of the head of large animals (light-brown, brown and black-brown) should be taken into account. More specifically, when lambs, lambs and older sheep are slaughtered for meat, it is advisable to select and slaughter animals with a dark-brown head coat.

Even when it is intended to produce large quantities of high-quality, semi-soft, white wool from yellow sheep, the animals should be selected according to the color of the coat. In particular, it should be ensured that light-brown haired sheep and goats are kept.

Hissar sheep. Hissar sheep are quick-maturing animals, distinguished by their high meat and fat productivity.

According to foreign scientists, the Gisar breed is considered to be one of the oldest and most common breeds of sheep in the world. The Hissar breed was created by Tajik breeders as a result of long-term population selection.

According to P.F.Kiyatkin, live weight of ewes bred in Surhanderya region of Uzbekistan is 70-75 kilograms on average, and that of large lambs is 95-105 kilograms. The shepherds of Surhanderya province called the sheep of hissar breed

"karakoy" - "black sheep". In order to develop these sheep, after the creation of the State Breeding Farms, they will start breeding the so-called "hissar" sheep.

Picture 7. Flock of Gissar mother breed

Local residents of Koytendag etrap still call these sheep "karakoy" - "black sheep". The fact that it is said like this proves that short-breed sheep have been bred in the Koytendag region since ancient times. In the past, the Turkmen and Uzbek villages of the Dagestan were in close contact with each other, and for centuries they were engaged in raising sheep of the high meat-yielding Hissar breed.

Despite the fact that the breeding grounds are located in the mountains and valleys, Karaköly breed sheep are bred in "Koytendag" and "Dagly" livestock farms of Koytendag etrap. However, the inhabitants of the mountain villages have been regularly engaged in keeping purebred Gisar sheep in their private households.

During scientific visits to "Koytendag" and "Dagly" livestock farms of Lebap province, scientists studied some information about the appearance and productivity of small-breed sheep bred in private farms of Koytendag etrap.

Gissar sheep bred in Koytendag district are mainly black and brown in color and belong to the tail group of zoological Thai sheep. They are distinguished by the length and endurance of their legs, and their sheep and rams are unique.

Local farmers will produce 85-87 lambs for every 100 ewes. Sheep are grazed on mountain pastures and bathed in spring water. The productivity of sheep is low. They molt twice a year (spring and fall). Most of the time, farmers will not shear their sheep in the fall. In the conditions of the Koytendag region, these sheep do not get sick with blood-parasitic diseases.

It should be said that the favorable natural weather and pasture conditions for Gissar sheep in "Koytendag" and "Dagly" livestock farms (located in the mountainous region) are not sufficiently used for these animals. In those folds,

mainly sheep are called garakoli. However, it should be noted that the meat and fat productivity of Karakoli sheep in these plots is lower than that of Gissar sheep.

In 2017, on the basis of the approved list of proposed names of the breeds of agricultural livestock bred in Turkmenistan by the Ministry of Agriculture and Environmental Protection of Turkmenistan (at that time it was called the Ministry of Agriculture and Water Management of Turkmenistan), Gissar sheep bred in the Koytendag region were called Koyten sheep.

Bigger sheep. Koyten sheep is a local goat population of Gissar sheep, currently it is bred mainly in "Köytendag" and "Dagly" livestock farms of Koytendag etrap and in private farms. These sheep will have high genetic potential for meat production.

Picture 8. Gissar breed mother sheep with lamb

In 2003 - 2006 as a result of the working visit of scientists to the Koytendag region, a proposal was developed "On the expansion of the breeding area of meat-oriented goat breed sheep in Turkmenistan and effective use of this breed." On the basis of that proposal, on September 4, 2006, the order "On the use of local mountain sheep (sheep) in the development of mountain meadows" was adopted. Thus, by using the gene pool of meat-oriented Kotendag sheep in selection and breeding work, scientists have drawn up a program of research works to increase the meat and fat productivity of Karakoli sheep grown in the Koytendag region. The scientific work of the program under the name "Using the gene pool of goat sheep to increase the meat and fat productivity of sheep in the pastoral farms located in the mountain meadows and expanding the breeding area of this breed" was carried out between 2006 and 2010.

In the course of the research, the live weight and wool productivity of the sheep were studied during the spring shearing period, according to their gender and age groups.

Table 2

Liveweight and wool productivity of sheep by sex-age groups

Sex and age groups	Total	Alive weight kg	Total	Production of wool, kg
Koyten's ram	12	78,0 ± 0,16	12	1,2 ± 0,8
Garakoli breed ram	50	62,0 ± 0,09	30	2,4 ± 0,7
Koyten sheep	20	52,0 ± 0,12	25	1,0 ± 0,9
Garakoli breed sheep	50	41,5 ± 0,09	50	2,3 ± 0,05
Koyten x garakoli genotype ewe lambs	26	45,0 ± 0,16	30	1,6 ± 0,16
Garakoli ewe lambs	50	36,5 ± 0,10	50	2,1 ± 0,10

It can be seen from the table that the live weight of mixed breed sheep of the goat x goat genotype can be high even during the working period. It is clear that the meat and fat productivity of Koyten sheep was higher when compared to Karakoli sheep.

It should be noted that the wool of Kote sheep is very coarse and of poor quality. The weight of the dirty wool of young sheep and lambs is slightly more than one kilogram. In a few years, that indicator will drop even lower. However, the wool yield of sheep with the sheep x garakoli genotype obtained from cross-breeding will be superior to that of pure sheep.

When the goats of Koyten x Karakoli genotype were examined at birth (in March) and at the age of 4 months (in July), it was found that they had a bigger body and a higher live weight compared to the Karakoli breed.

Lambs with the black x black genotype are born black and black-brown, and most of them are black in color.

Also, according to the shape of their tails, they can be divided into 3 groups: round, layered and curly. Most of them have a layered tail.

Table 3

Growth of live weight of chickens of Koyten x Karakoli genotype and Karakoli breeds, kg

Breed of lambs	Total	Age of lambs		
		New born	2 months	4 - 4,5 months
Koyten x garakoli:				
Male lambs	60	4,6	22,9	34,4
Female lambs	60	4,3	21,3	30,6
Garakoli:				
Male lambs	50	4,4	19,0	27,5
Female lambs	50	4,1	17,6	25,0

It can be seen from the table that although there is no significant difference in the live weight at birth of lambs of mixed genotype (boy x black) and black, the growth of mixed genotype lambs will be increased in the later stages of their development.

By using the gene pool of these sheep in breeding and selection work, it will be possible to increase the live weight and meat productivity of Karakoli sheep (Köytendag pastures) raised in the mountain pastures of our country. Goats will occupy a unique place in the economy of our country. There are three breeds of goats in Turkmenistan. Local milk-producing Turkmen goats (black goats), white goats and dairy goats are kept.

Local black goats. Most of the goats in our sunny country belong to the breed of local black goats. Turkmen goats are distinguished by a strong body structure, flexible bones, high adaptability, high mobility, and the ability to show better pastures than sheep. The entire body of Turkmen goats is mostly black in color. Their face is usually white or usually white, yellow or brown with (symmetrical) zolo-zolo and zolo-menok shape. Rarely, moose, mottled, and, more rarely, white goats.

Picture 9.Black goat breed

Live weight of goats is the main indicator of meat productivity. If goats are kept in the field year-round, their weight will fluctuate according to the year and season. Their average live weight is 38.0-41.0 kg in spring and 39.0-45.0 kg in autumn. Domestic goats are prone to gain weight and gain weight in the wild. If the forage is improved enough, the pre-nourished cattle will dry out less quickly and gain weight. Domestic goats are long-lived and can be kept up to 6.0 - 7.0 years in production conditions.

The tusks of Turkmen goats are long and straight, and have the shape of a small cap, and the large bones are longer than those of the goats.

A characteristic feature of domestic goats is the sparse coat of hair. Their wool grows and is shorn once a year, in the spring. Wool yield averages 0.6 kg in mountain conditions and 0.7 kg in plains. Wool productivity can also depend on the condition of the wool. If there is enough hay in the barn, then the productivity of the wool will increase. The dough is made up of two distinct components: the rind, which is long and thick, and the thin, short bones. In the rumen of old local goats, 20.2 percent of the protein content is stored, and 79.8 percent of the protein content. According to the amount of milk (10-25 percent milk), Turkmen goats belong to the semi-milk group. Local goats with a good quality of wool will, as a result, have a high wool yield, with an average of 95.9 percent.

In terms of fineness, fine lines and fine lines differ greatly. The average thickness of large wool is 73-74 microns, and that of iron is 15-16 microns.

When about 20 percent of the goats are harvested once, more than 200 grams of valuable milk will be produced, and they can be considered close to the known Orenburg goats according to this indicator.

The milk yield of domestic goats is directly related to the live weight of goats and the condition of the sheep. Typically, domestic goats are kept for 60-80 days. Milking twice a day will increase milk production by at least one and a half times compared to one milking. When the goats are kept for 80 days, 40-45 liters of easy milk will be obtained. The fat content of milk of Turkmen goats is 2.8-3.6 percent. It is recommended to milk the goats for 180-200 days in the following years.

Fertility of domestic goats is extremely high, but this trait is subject to strong variation under the influence of grazing conditions. Of course, this indicator is not the same in different flocks of the same farm, and the role of the shepherd's will is very important in this work. On average, Turkmen goats give birth to 128-135 kids per 100 mothers. Baby lambs should be raised with special care, the survival rate of the lambs is lower than that of the lambs, there is a tradition among livestock Turkmens that says, "Bury the lamb well, and bury the lamb black."

White goats. A new breed of goats, created by crossing local cheese-producing black goats with Angora goats, was recognized as an independent breed in 1962 and named Soviet breed goats (white goats). White goats combine the robust body structure of local goats and adaptation to the natural and climatic conditions of our country, and the quality of wool of Angora goats.

They appear to be effective in covering mountainous areas that are difficult for other cattle to reach. White goats are mainly grazed in the pastures of Baherden of Ahal province, Serdar, Magtymguly and Bereket districts of Balkan province.

The wool of white goats is considered a valuable raw material for the production of high-quality carpets, artificial fur products, velvet, knitwear, soft jacket fabrics, clothing and other products. Cotton is mixed with artificial (synthetic) fibers to weave high-quality soft and strong fabrics.

Wool productivity of white goats depends on feeding, husbandry conditions, breeding level of herds. The scientific research conducted by scientists between 1972 and 1992 in Magtymguly Farming Association of Baherden Etrap, which is one of the farms where white goats are grown from wool, will allow to characterize the wool productivity of white goats. If the white goats raised in the mountain pastures (Central Kopetdag) were continuously bred and selected, the wool yield of their goats increased from 2.0 to 3.0 kilograms, and the wool yield of large goats increased from 1.2 to 1.8 kilograms. It was found that it is possible to increase the wool productivity of goats (2-year-old goats) from 1.5 to 1.7 kilograms, and from 0.9 kilograms to 1.2 kilograms.

Usually, the length of white goats' wool is between 19-22 centimeters. The length of the wool of selected and quality I large goats on the farm is on average 20-21 centimeters, and that of the goats is 17-19 centimeters. According to the requirements of the seed standard, this indicator should be less than 18 centimeters in large goats and 16 centimeters in young goats.

The live weight of goats is 35.0-38.0 kilograms, goats are 55.0-58.0 kilograms, and mountain goats are 28.0-30.0 kilograms, depending on the year's harvest and the availability of pastures, which will meet the requirements of the breed standard.

Zaanen or zaanental bred. Zaanen goats are hardy, mature quickly, have many generations, and are able to adapt well to different natural and climatic conditions.

The color of Zaanen goats is white, but the head or tail of the goat is black and white with yellow spots. Its wool consists of short, coarse hairs and usually does not have any fluff, so shearing this goat is a must. Goats are dense in body structure, have strong muscles, and a well-developed meat system. The trunk is broad, long, the legs are straight and powerful; head is dry, smooth, medium-sized; ears up, like a princess, a little childish; tight neck; bare chest. The udder is large, balloon-shaped or pear-shaped, strong, and the teats protrude slightly forward. The height of large goats is 74-78 centimeters, and that of goats is 82-88 centimeters.

Zaanen goats have fast maturity and high fertility, and their goats will reach maturity at the age of 6-8 months. Babies weigh more than 5.0 kilograms at birth, so 80 percent of ewes give birth to twins. At 2 months their live weight will reach 12.6 kg, at 12 months 38.0 - 48.0 kg. Large goats weigh 65.0 to 85.0 kilograms (preferably 110 kilograms), goats 50.0 to 60.0 kilograms (preferably 90 kilograms). Zaanen goats usually have twin lambs, triple lambs are rare, and 100 female goats will give birth to 180 to 250 kids.

The milking period of a Zaanen goat will last 10-11 months. An average of 600-700 kilograms of milk will be obtained from each goat, and up to 1000-1200 kilograms when well cared for. More dairy goats will produce 10.0 to 12.0 kilograms of milk per day, or up to 3,000 kilograms per year. The world record for milk

production was achieved in Austria (3507 kilograms). Goat milk contains 3.8-4.2 percent fat.

Picture 10. Zaanen milky goat

Zaanen goats are distinguished by their meat quality and high quality skin.

In the spring of 2014, the first batch of zaane goats from Turkey was brought to the breeding complex of "Sahavatly" economic society in order to produce goat's milk in Turkmenistan and prepare nutritional milk products from it. Currently, goat's milk will be processed in this livestock complex to produce cheese, yogurt and delicious dairy products.

In Turkmenistan, the prospects of breeding dairy goats, including zaane goats, are great both in the country and in private households.

Preparing for breeding season in livestock and its passing process

The spring season is considered one of the most important and responsible measures in husbandry. Improving the breed of cattle and obtaining healthy offspring from mother cattle will largely depend on an organized and timely breeding season.

In the natural and climatic conditions of our country, the breeding season of cattle will start in the first half of October in most parts of our country. If for some reason the first-time sheep does not come out of the den, it will be possible to take it out again after 16-17 days, and the nesting season will continue for 40-45 days. Due to the late arrival of summer, the breeding season of cattle in the northern region of Dashoguz region will start 10-12 days later.

This event should not be carried out earlier or later than the appointed time, nor should it be delayed. This will lead to barrenness of sheep, a long lambing season, and eventually the death of late lambs due to the heat of the year, even if only a few young lambs are taken throughout the year. This is because the milk yield

of cows that are not fed with blue pasture in the late autumn is low, and the composition of the milk will be poor in micronutrients, micro-macroelements and vitamins. As a result, lambs from these ewes are weak, stunted, have reduced viability and disease resistance, and may even die. The success of the lambing season depends to a large extent on the well-organized and timely conduct of the breeding season.

In order to have an organized and efficient winter season, you need to make a precise plan for it. The plan should specify the nesting season locations, wells, fences, and where the herd should be. You should also look at the condition of your home's firewood and consider providing additional fodder if necessary.

The availability of Sunni Saat lambs from cattle depends on the degree of dryness of the animals. Timely organized preparation of rams and ewes for lambing will help to increase their insemination and lambing by 10-15 percent, and to get many twin lambs.

To prepare for the lambing season, first weed the lambs at the right time and form the flock for breeding. This event is about 2-2.5 months before the breeding season (in July) should be implemented. If there are ewes that have been saved, then the milking of them will be stopped.

Sheep should be grazed in grass-free, well-drained pastures before the lambing season (July and August). The use of the practice of keeping the cattle in salt beds and watering them with water from wells with clean and sweet water will have a positive effect on the dryness of the sheep, or on the violence of their genitals, that is, on the natural twin sheep.

Having ewes at medium to medium fat before the start of the lambing season will help them emerge from the lambing mass. Therefore, experienced shepherds tend to shepherd the flock themselves during the preparation and transition periods for the lambing season. In this regard, there is a tradition among the Turkmens that says, "Let the sheep grow in the sky, and let the pregnant age be dumb." The main reason for this is that at those times of the year, the emotional state of the sheep will be higher. At that time, if the herd changes the pasture, the water, and the shepherd, the animals will not be able to find their former status.

It is necessary to have a good dryness (in medium fatness) of the animals to be put in the oven. But this does not mean that animals must be overweight. This is because fat sheep, like fat cattle, are more likely to become barren or give birth to weak offspring.

Picture 11. Garaköli breed rams

As winter lambs enter the season, diligent preparation is essential. You have to get them to be dry. Breeding lambs should be kept in good pastures in the autumn, with additional feeding if necessary, to bring them to a moderate to moderately high level of fatness. Therefore, when the season is about 1-1.5 months away, each lamb should be fed an additional 1-1.5 kilograms of grass, up to 0.5 kilograms per day. The health of the lambs should be closely monitored by veterinarians. It is necessary to take blood from them for examination and to check whether they are free from brucellosis and other dangerous diseases, which are not available in laboratories. He must put the Sunni clock on the door. In order to increase the natural twin lambing of sheep, it is recommended to use breeding rams selected from same-sex twin male lambs. Among the breeding rams, those that cannot be used in the breeding season will be separated and the herd will be filled with young breeding rams. The seed lambs will be entrusted to experienced shepherds dedicated to the religion.

Usually, the breeding season of sheep starts at 6-7 months of age. But at this age, it is strictly forbidden to send them to the nursery. This is because the body of young animals is not yet fully ready to produce offspring at this time. If they are weaned at that age, they will be immature lambs and will not be able to produce healthy, high-yielding lambs. That's why both adult male and female rams are sent to the shelter for the first time at the age of 1.5 years.

In the breeding flocks of the mother sheep on the farm, elite rams obtained from religious breeding flocks should be placed, and in production flocks, first-class breeding rams should be selected. In accordance with the zootechnical rules of breeding, one lamb is added to every 25-30 ewes. After 40-45 days, the lambs are separated from the mother flock.

The natural twinship of sheep cannot be determined by their degree of devotion. In order to fully express this sign, the selection and pairing of goods should also be properly arranged.

In order to improve natural twinning in sheep, selection is done by selecting lambs born with twins at the time of lambing. start by marking (tagging) the sheep to distinguish them. Such marking will greatly improve future flocking and ewe mating. When the lambs are separated from their mother, the breeder should form a

separate herd from the twin lambs. If there are not enough ewe lambs to start a flock, then the flock should be supplemented with ewe lambs.

In order to quickly increase the number of twin ewes in the flock and to use the twin sign in the offspring, it is recommended to use gins to artificially remove same-sex twin rams, or to remove ewes that have been born with twins or twins.

It may be possible to gradually increase the number of animals in the flock along the selected trait, and to make twin lambing in ewes a trait that is passed from generation to generation.

For ewes to have twin lambs, the ram and ewe mated do not depend on the religion of the twin, but also on their gender. If identical twin rams are mated with ewes of different births, a higher number of twin lambs will be born.

The likelihood of ewes having twins also depends on their age, so it is advisable to take this sign into account when mating animals.

The age of the ewes will affect the occurrence of twinning. In ewes, the incidence of twinning will gradually increase from their 1st to 4th pregnancy, reaching a peak at 4-5 years of age.

The presence of ewes of the same age in the flock will allow to achieve a high result in the selection of twin lambs per year due to the age-matching of rams.

When rams of the same age are mated with ewes of the same age, i.e., of the same breed, the difference in getting a twin lamb will increase from 1.7 percent to 8.5 percent. Mating by age will allow you to quickly identify compatible parent pairs and high quality lambing ewes and rams.

It is recommended to carry out the proposed selection work for getting twin lambs from sheep and the preparation for the lambing season, regardless of the number of sheep and their breed, and the type of ownership.

The end of the spring season will coincide with the front of the winter season. This will lead to the need for special care for rams that have fallen into the nesting season. Thus, during that period, each of the lambs should be given additional feed in the amount of 0.5-1.0 kg per day for one month.

Artificial insemination is the best way to breed sheep. This method will help to improve the breeding and productivity quality of sheep in a short period of time and to increase the generation of valuable breeding rams (a heifer from a single ram is enough to remove at least 500-700 easy sheep from the nest), and to extend their useful life in breeding work. Also, artificial insemination plays an important role in preventing the spread of various diseases, especially sexually transmitted diseases. In order to conduct this important event in an organized and student-oriented manner, each household should develop a work program in advance.

It is necessary to take the necessary measures in time to complete the solution of removing the den by the artificial method within 40-45 days, to achieve mass removal of the ewes in the flock.

Wintering of livestock

Getting the goods out of the winter safe and sound is no easy task. For this, you need to prepare well in advance of winter. That is, in order to get the livestock

out of the winter, the livestock themselves must be prepared for the winter, along with having a sufficient amount of good hay, fodder, and warm bedding. In order to prepare the cattle for winter, the sheep kept in the field all year round should be fed in spring, summer and autumn seasons and accumulate fat reserves in their bodies for the winter period. Turkmen herdsmen's "Will nine to three be enough?" The meaning of the question is whether the reserves collected in those nine months are enough to survive the three-month winter.

In the natural and climatic conditions of Turkmenistan, "Yaldyrak" should take care of preparing the lambs for the lambing season and winter. By blowing wind on the end of the last cattle from the autumn shearing and knocking at night, its blood circulation will improve, it will open up, and the sheep will start to breathe. At that time, the sheep should be fed on saline, wormwood-saline, and sorghum-weeping pastures. Cows fattened on grass will come out of the winter with no more blood loss than cattle fed grass. This is because the body fat of fattening animals is more solid. Solid fats tend to dissolve with difficulty. In this way, the cattle will use the food stored in their body in the form of fat, and they will come out of the winter fat and healthy. Our forefathers used to say, "Don't have too much grass" and "There is no problem with the belly", because the dok is more resistant to the cold and has a sunnier clock.

Cattlemen must stock up on forage reserves per sheep for the winter period. In the case of poor weather conditions (strong wind, storm, rain, sleet, snow cover on the ground, etc.) when the herds cannot be harvested, they will be given for additional feeding of young cattle, ewes and ewes. If the hay is harvested in a baler or baler before it is fed to the animals, it will be both palatable to the animals and provide an economical way to cover the hay.

Cattlemen in each household should determine a separate feeding schedule for each group, taking into account the fatness and age of the animals. Cattle should be fed on the basis of that rule. During the period of cattle wintering, economic managers, animal husbandry professionals, and cattle owners should visit the cattle and strictly monitor their care, feeding, and the condition of the cattle in general. In general, attention should be paid to herds of young cattle and young sheep. Young cattle are easier to control if they are kept in a central double, good pen during the winter.

Adolescents are constantly growing and their body tissues will continue to form. This will require that an adequate supply of complete nutrients is continuously delivered to the animal's body.

That's why they will quickly get tired and sick due to lack of grass in winter. Even if it is cold, they will start to wear their clothes. Considering this situation, it is necessary to pay special attention to the maintenance and additional feeding of the children. You cannot get a high quality product from an animal that is bruised at a young age. Young cattle should be fed 300 grams of grass and 100 grams of fodder per day, except for the grass harvested in winter, to ensure their normal growth. Proper handling of young animals will be a key condition for breeding high-yielding animals in the future.

In winter, the breeding of strait sheep should be a special focus. In the conditions of Turkmenistan, the lambing period of sheep will mainly coincide with the winter months. In Turkmen people, February is called "the month of ewes" and it means to pay special attention to the slaughtering of strait sheep at that time in order to get healthy lambs. If ewes are brought out of winter at medium to high fatness, their lambs will be born healthy. When ewes are adequately fed (mainly early grazing), ewes will be milky. This will help the lambs develop well and become high-yielding animals.

After the mother ewe leaves the nest, the period of formation and development of the final embryo begins. During the first 45 days of embryonic development, the lamb's body organs will form. The remaining 105 days of gestation is a period of vigorous growth of the resulting organs. During the last two months of the ewe's estrous period (January and February), the development of the lamb embryo will be more intensive. This will indicate the need to feed the strait sheep adequately during that period. In addition, the formation of the feather coat is intensified during the 3-4 months of fetal development and is completed by the birth of the lamb. If the rules of keeping and providing fodder are violated, and if they do not get enough fodder, then the mother ewe's body lacks nutrients, and the formation of the hair coat of the lamb fetus is significantly delayed. This will cause the wool in the lambs to become sparse and brittle. If this happens, the quantity of wool, which is one of the main products of yellow-breed sheep, will be reduced and its quality will be poor.

The scientific data presented above will show the need to pay special attention to the winterization of crops. The second half of the period (January-February) is considered the time when mother sheep need nutrients, vitamins, and microelements the most. Ewes need to feed both themselves and the growing embryos in their wombs. If 400 grams of fodder and 200 grams of fodder are fed to ewes in the second half of their lambing period, they will create a normal condition to prevent dehydration and ensure the growth of the lamb in the womb. Additionally, to satisfy the sheep's appetite for salt, rock salt should be placed inside the pens, within easy reach of the water troughs.

Picture 12. Prices prepared for winter season

Proper watering of cattle during the winter season is an important task for shepherds. Experienced herdsmen will try the end of winter with the end of summer to water their cattle. Just like in summer, in winter, you should water the plants every day. This is because the bodies of large-stemmed, dry grass-fed animals require more water than usual. In winter, each sheep will need about 4-5 liters of water per day.

To give warm water to the sheep, water should be drawn from the wells at the time of the cattle's watering. It is recommended to dilute the water brought from another place. It is important to remember that there is a risk of disease when ewes are exposed to cold water, and cold ewes may lose their lambs.

Wintering the sheep under shelter and other organizational measures will depend more on the shepherds themselves. They should know the condition of the animals in the herd by hand and

he should take care of it in time. Farmers engaged in animal husbandry, wintering shepherds, private cattle owners should make it their main task to properly winterize their cattle.

Preparing for breeding season of goatling- lamb and passing process

The season of lambing is one of the most important and responsible solutions in farming, and it is considered to be the time when the suffering of the shepherd is compensated for the whole year. Every breeder should know that timely preparation for this important season and its transfer from the organizational level helps to obtain healthy offspring from sheep, to raise young lambs without death or orphaning, and to increase the number of ewes even if they remain.

In order to successfully spend the season, cattle owners should develop a work program with the participation of livestock professionals and take into account the following measures: choosing a suitable place for the mother sheep flock; to repair and repair skins, brains, and bones, to repair them when necessary; Cleaning and disinfecting the inside and outside of cages and cages; provision of sufficient fodder for each herd; cleaning and arranging structures with water sources, wells, cisterns, reservoirs, technical control, repair and maintenance of water extraction devices; preparing feed troughs and water troughs; to conduct general training-consultation and explanatory training on labor-technical safety with shepherds, accountants, inspectors in pastoral farms and to provide them with necessary work tools and other tools; as well as the provision of relevant breeding, zootechnical reporting and registration documents, strengthening transport services; The mother must ensure that the ewes are driven to the lambing area in time.

Getting cattle out of the winter at moderate fattening is the key to getting ready for the lambing season. This is because healthy lambs can be obtained from healthy and stable animals. Therefore, special care should be arranged for strait cattle. If the ewes are weaned from the winter in medium and high fatness and provided with additional feeding before the lambing season, it will affect the health of the lambs themselves and their lambs. It is necessary to provide additional 0.3-0.5 kg of fodder and 0.8-1.0 kg of shredded beef in addition to the hay obtained from the sheep. Sheep

are particularly sensitive to mineral deficiencies during the estrous period, so rock salts must be present in barns.

In our sunny country, the lamb-lamb season is the first month of spring, when the weather is not too hot, it is cool and the green grass is harvested in the field. In order to carry it out, you should select as smooth, smooth, and wind-swept braids as possible. Sheep should be brought there 15-20 days before the season.

Picture 13. Mother sheep with lams

If the herds of strait sheep are placed as close to each other as possible at the place of the season, it will help the artisans of the farm to provide appropriate assistance to the herding teams, and to ease the work of the artisans who assess the quality of the lambs. During that time, additional labor assistance should be provided to the herdsmen.

It is not recommended to keep pregnant sheep in pastures or in areas where there is a lot of heat. In cold windy weather, they are best kept in sheltered areas or areas with large litter. It is a branch that should not allow fattened sheep to lie down on their backs in frosty, wet and snowy places. This will often expose the ewes to colds, which in many cases can result in lambing.

1-3 days before lambing, the ewe will be full of wind, the abdomen and penis will be swollen. Before lambing, the sheep will lie down in the fold. Kabiri will leave the herd and graze elsewhere. It is rare for those sheep to be invisible to predators at night. Therefore, the shepherd must watch the movement of his sheep and know where they are hiding. You should take care of their extra delivery. For the shepherd to control these movements, smooth, smooth, wind-blown braids are selected.

Proper watering of cattle is considered one of the most important tasks for herders. The cattle should be watered from time to time with warm water from the well. Therefore, drawing water from the wells should coincide with the time when the rivers come to water. If the water is brought from another place, then that water should be warmed a little. Keep in mind that there is a risk of disease if ewes are exposed to cold water, and cold ewes may lose their lambs. When the sheep are watered or taken out of the water, they must be allowed to shrivel up. Most large

sheep are easy to herd. After the appearance of the watery white sac (cavity) in the lamb, it will not last more than 30-40 minutes, but in active ewes it will last 10-15 minutes longer. Human intervention is essential if sheep are herded properly. But if the lambing of the sheep takes a long time, if there is a problem, then the help of a shepherd or a veterinarian should be given. If a lamb is born with a shirt, i.e. a rump (a small bar that covers the lamb's rump), it must be torn off immediately or the lamb will likely die of suffocation. If the ewe does not feel comfortable with the last lamb, then wait 10-15 minutes for the second lamb to be born.

When the lamb is born, its umbilical cord is opened. If it does not open or the navel is long, it should be cut with a harmless knife at a distance of 8-10 centimeters from the skin of the lamb. A 5 percent iodine solution should be applied to the navel. You have to separate the saliva from the mouth and nose of the new lamb, blow it through its nose if it can't breathe, then give it to its mother to lick and lick without dragging it away. Because the skin of a licked lamb will dry quickly and blood circulation will improve, even if it remains, the moisture (saliva) on the outside will help the sheep's skin to fall off quickly. After 15-20 minutes, the new lamb will start looking for its mother's teat, during which time the mother will lick it and get used to the smell.

In order to create favorable conditions for raising healthy offspring in the farm, small separate groups of lambs will be formed. The age, growth rate and health status of the lambs should be taken into account when forming these groups. As the lamb ages, three groups will be formed from the lambing ewes. A separate group of lambs (fresh lambs up to 3 days old) will be formed from all lambs during the day, and the number of lambs in this group will be about 10-30, until they are counted. Lambs of the second middle group are from 3 to 7 days old, 50-70 lambs. In the third slaughter group, the lambs are from 7 to 15 days old, and the number of lambs should be more than 150. Ewes older than 15 days of age, Sunni clock sheep, will gradually be transferred to large flocks (the number of sheep is more than 200). In this large group, the lambs are kept together for 4-4.5 months before they are separated from their mother.

Cattle owners must take a responsible approach to raising young lambs to be healthy and productive. It is not recommended to move sick, bruised or underdeveloped lambs from group to group, they should be placed in the infant group. The baby is often held in the group several times a day. To ensure normal development of the lambs, the ewes should be screened at least twice a day (in the morning and after returning from the evening meal) to ensure that the ewes have not received their lambs and to identify the orphans and ewes in time. If a shorn or orphaned lamb is born during the transfer, it should be moved to marries or ewes. But it is necessary to do this before the sheep grow their own lamb. And so the lambs that came to the first lamb would run away from it without taking their own lamb. An active ewe may repeat this behavior during her second and last lambing. Therefore, if it is the case, the sheep should try to deceive the lamb. A foreign sheep should use several methods of removing orphaned lambs (pitting, denuding, giving fire, removing dead lambs or new lambs).

In a flock, the lambs will get used to each other well, so it will be rarely crossed. You should especially pay attention to the baby group, they are intolerant to cold, and because of that, they can easily suffer from colds. Baby lambs should be managed to feed them on the spot on snowy and frosty days. Then, in cold weather, the ewes are taken out to water for a few hours. On cold windless days, baby lambs should be grazed close to the last bed when the ewes are separated from the firewood. This will allow them to be put to bed quickly if the weather suddenly turns cold.

Shepherd lambs should be strictly monitored, they should not lie down on wet ground for long periods of time, and they should not eat soil. The spinning team will be watched at a distance from the pair. But the herd must be removed after the punishment that falls on the face of the firewood. The practice of tending sheep at night will also be used in farming. After 15-20 days of fresh lamb's body, they will begin to sit.

Young lambs should be kept under a shed made of local materials (reeds, bamboo) without exposure to the sun in hot summer weather. Lambs should be provided with fresh water twice a day, if possible. Because the bitter salt water will make the sheep sick. To water the lambs, the troughs should be placed next to the well. If the lambs are not fed from the trough, they will be forced to drink dirty water, which can lead to gastrointestinal diseases, which can even lead to death. When the animals are watered, the shepherd should remove the weak, sick, sick lambs and sick sheep from the herd and organize additional feeding (200-300 grams of feed per animal per day). Sick animals should be shown to a veterinarian.

During the hot summer months, blueflies will lay their eggs on the inside of cattle's tails and on injured limbs. Daily spraying of the herd will allow timely detection of infested animals. Sheep and lambs will feel uncomfortable due to the pain of the wound where they were born, they will quickly fall off the pasture, and they will lie down in the field where they will follow the herd. These animals must undergo emergency treatment or they will most likely die.

Worm-infested animals should be dried with a bag, the wound should be treated with creolin or other antiseptic drugs, and sprinkled with naphthalene or cubatol (desertant). Experienced shepherds will use black oil made from sheep's dung as a medicine. Wounds on the body of animals will heal quickly after the worm is removed and treated with medicine. Generally, drying must be taught by the herdsmen themselves. Therefore, they should be provided with the necessary resources such as medicine, purse, scissors.

The lambing is done during the day in the pastures and at night near the winter beds. During cold and rainy nights, the strait cattle stay in their winter beds and in their pens. In such weather, newborn lambs should be gathered together with their mothers in shelters, winter beds, under the shelter.

The number of private livestock farmers in the livestock sector of our country will increase year by year. Pursuant to the requirements of Turkmenistan's breeding law, private breeders are also obliged to preserve and improve the seed purity of their herds. The period when the lamb is taken is considered to be the season when the breeding-selection process has started. In other words, the lambs are graded and

their fertility rates are determined. Typically, newborn lambs are graded (checked) within 2-3 days. Quality assessment of Garakoli lambs should be entrusted to experienced craftsmen. Private herders can also turn to quality assessment groups (bontiors) in this regard. This will help private herdsmen to improve the breeding and productivity of their cattle.

If the lambing season lasts for 25-30 days, favorable conditions will be created for keeping the young lambs without loss, for their healthy and fast growth. When this season is short, pastures will be full of green grass rich in vitamins and micronutrients during lambing. When the weather starts to warm, that is, in the second half of April, grasses will dry in most parts of our country. In addition, lambs born on hot days can sleep in oak milk, causing them to lose. Lambs born late (when the weather is hot) will be blue.

At the end of the lambing season, all lambs will be inspected and re-registered. Those of the lambs who do not meet the requirements will be cut off. Then a summary document showing the result of lambing will be drawn up, and it will contain information about the number of lambs sent for breeding, their gender, types of lambs, colors, quality composition.

Spring cutting process

In the conditions of our country, sheep are usually sheared twice a year: in summer and autumn. Harvesting raw wool without loss depends to a large extent on timely shearing. The timing of mowing is largely determined by weather conditions. In the conditions of Turkmenistan, the spring months are unpredictable, and torrential rains are not rare. Let's remember the saying of Turkmen cattlemen: "If you don't cut the country, you will eat the game of the country." In this way, according to the Turkmen cattle calendar, it is considered that "The country is summer and winter is old". Spring harvest in our country will be held from April 20 to May 15, when the weather is stable. It is not advisable to shear sheep earlier or later than these specified times or to delay shearing. In the first half of April, the wool of young sheep will continue to develop, and the weather will also be cooler. Furthermore, sheared sheep are cold intolerant and may suffer from frostbite due to exposure to cold or being crushed by the whip. It is not possible to delay summer shearing, because in hot weather, woolly cattle, lactating mother ewes feel uncomfortable and cannot add their milk to the lamb. As a result, the young lamb will grow up stunted. In addition, as the weather begins to warm, large and semi-wool sheep will begin to shed their wool during the season, and the valuable part of the wool will be lost to the litter. Also, delaying or delaying spring shearing can often result in sheep getting sick.

Shearing is usually done in designated shearing areas. Therefore, both light and dry sheds will be selected and equipped for harvesting in households that do not have shelters. The slaughterhouses must be cleaned, disinfected, and fireproofed. The shearing area is divided by wooden beams, in one of which the sheared wool is placed, in the second the shearing is done, and in one the sheared wool is selected

and wrapped. Having a wooden floor in the place where the cattle are sheared will be important for hygiene and will help prevent the wool from getting dirty.

Harvesting will be done on a pre-arranged basis. In that order, it will be shown when the flock has arrived for shearing, and the shepherds will be informed about it. It's usually a cattle ranch

it hurts, and when he laughs, his stomach immediately swells. Therefore, they should be kept on an empty stomach for 15-20 hours before cutting. It is a branch that can be used to shear sheep whose wool is well crushed. It is recommended to start with lambs of low value for shearing production, where the shearers will train their hands. The spring shearing will be carried out according to age and sex groups: spring lambs, ewes, lambs (the lambs will be selected and separated) and rams. Diseased animals must be slaughtered at the end, following strict hygiene and safety measures.

Sheep should be watered in a concrete pool 2-3 days before shearing. In this regard, it is also recommended to use a bath and spray equipment. Bathing the sheep does not affect the cleanliness and quality of the wool, but they feel great after being shorn. Bathing sheep in specially prepared medicated water is effective in preventing scabies and other skin diseases in cattle. To prepare such medicated water, 5 percent creolin or 1 percent sebatyl is added to the water.

Sheep are sheared with electric shears or hand shears (shearers). When sheep are sheared with electric shears, the work of shearers will be greatly improved, but the labor productivity will increase.

The quality of the sheared wool depends on the skill of the shearers. The easier it is for the shearing machine to grip the animal's body and move it closer, the higher the quality of the obtained wool will be.

Shepherds should carefully inspect their herds after slaughter, and apply creolin or one of the available disinfectants to the cuts and wounds. Sick animals should be separated from the herd and kept separately, and healthy animals should be taken out for grazing. Herds should be grazed for the first 2-3 days after shearing, as cattle that are kept in the front yard without shearing will graze excessively, which is more likely to cause gastrointestinal diseases. Freshly shorn sheep will suffer from cold weather, for example, being left under a spring rain (hagba, full) and will be severely crushed, which is a rare condition in sheep farming practice. Therefore, when the weather suddenly turns cold, the newly shorn sheep should be immediately covered with white wool and kept in the shed for 5-6 days until the wool grows a little.

In conjunction with the spring shearing, veterinary measures against rabies and ectoparasites will be coordinated and vaccinations will be carried out according to a pre-arranged schedule.

Animal husbandry scientists have developed rules for studying wool productivity by age groups and breed lines.

Selection thumbscrew and composing of flock

Ewes with lambs will be reared together until they are weaned. During that time, the lambs will also be exposed to pasture grasses along with their mother's milk. The gastrointestinal tract of lambs will be fully developed at 4-4.5 months and they will be able to feed themselves. Also, at this age, males and females will mature sexually. In addition, older ewes should be rested and dried until the next breeding season. Therefore, lambs are usually selected when they are 4-4.5 months old, that is, in the first half of July. In the case of delayed selection of fodder, the ewes will not be completely dry (medium and high fatness) until the lambing season, that is, the level of fatness will be low, the lambs will come to the lamb in a hurry, the season will be prolonged, and even if they stay, some of them will remain barren. Lambs born at the end of the season will be stunted during the period of fat burning and reduced milk production.

Before the actual election starts, it should be planned, then the time and place of the election should be determined and the minds should be prepared. The plan will specify how many herds should be created from the selected animals, which herds should be entrusted to the shepherds, and the pastures where they should be cared for. The water supply and irrigation systems of the pastures where the cattle herds will be grazed should be prepared in advance.

To separate the cubs from their mother, they should be gently prepared for selection. Lambs should be separated from their mothers 10-15 days prior to selection. At first, the young should be separated from their mother until 10 pm. At night, the lambs are kept together with their mothers. Then you should gradually increase the duration of individual care. In doing so, the foals will gradually become accustomed to being cared for in a separate herd. This will help in the successful completion of the current election.

At the selection site, the ewes are selected from the flock, and the remaining ewes are grouped according to sex, breed level and color. More precisely, in breeding, the flocks are collected separately according to the color of the head of the lambs (black, gray, gray), the shape of the ribs (pink, pink, green) and the level of quality. Good quality and grade I lambs are collected in separate flocks, and the flock size should be less than 850-900 head. Grade II goods will also be collected separately.

In the selection, each part of the male lambs intended for breeding and meat should be placed in a separate basket. A herd of 750-800 male lambs intended for breeding, and about 1000 for meat lambs is considered desirable. If the ewe lambs do not produce a single flock, they must be supplemented with culled male lambs. It is good to start the flock by adding 5-10 large sheep or goats without lambs when creating a flock. When creating healthy herds, you should choose healthy animals, and you should collect the unfit ones and those that do not fit the herd separately, undergo treatment, take good care of them, and take good care of their food and water.

Infants who have been selectively weaned will have to learn new skills on their own to acclimate to the environment. The children will spend the first days of

their independent life in a bad way, they will not stay awake at night due to the absence of their mother, they will be afraid of the poem, they will still run away from the graves, and it will be very difficult to keep them together. Young trees should be pruned, and the branches should be groomed in a soft grass pasture. Taking care of your baby for a walk will help the body to become stronger and more resilient to life. If possible, it is recommended to soak the affected areas in sweet water twice a day. In the autumn months, watering once on the last day of rain is considered sufficient. Keeping the chicks in a green field of succulent plants will allow them to satisfy their need for minerals at the expense of challenge grasses. Rock salt should be present in the bed after the plants have been formed into a crusty pasture. For calves up to 6 months of age of 1.0 kg of live weight, the amount of fodder consumed per calf is 0.8-0.9 kg of feed unit and 99-104 grams of digestible protein. This will save 1.76-1.98 kilograms of forage dry matter. From 6 months to 1.5 years of age, the need for fodder will increase, that is, on average, 1.1-1.2 units of food, 104 grams of digestible protein. Young goats should be protected from adverse weather conditions (rain, snow, extreme heat, wind, etc.), but it should be remembered that the goats are livestock to supplement the herds of mother cattle.

There is a saying among the people that "The cattle drink water from the eyes of its mother". Based on the above, shepherds should be entrusted with the care of flocks made up of young sheep. Fields should be accessible to wells. Because young animals have a high demand for water, they should be watered daily. Because they are not yet used to being cared for as a separate herd, young goats will find it difficult to follow. If the pasture is far away from the well, it will take a lot of effort and time to water the foals every day. Plants in a good location will quickly adapt to fresh conditions. The pastures intended for their rearing should be considered in advance and kept in mind.

Picture 14.Thumbscrew flock

Fresh water wells should be designated for the residents, and brackish water wells should be available if not available. When turtles are exposed to water from

salt water wells, their metabolism is disrupted, they stunt their growth, and they become emaciated. It is necessary to determine in advance the water supply of wells in the networks of the power plants to be inspected, to check, repair, and prepare the arrangement of drainage devices, the repair of reservoirs and channels. If the plants are watered from a well, drawing water from the well should coincide with the time when they will be watered. If you leave the water in front of you, the water in the tub will heat up and it will have a bad effect on the health of the children. If the animals are fed by streams of water, they should drink water slowly and put them on the ground during daytime rest.

The hot weather should be watched at night and early in the morning when the trees cool down. The herds that have been grazed and watered should rest in shady places. As a result, young animals should be fed at night and near water during the day. Shepherds should watch out from time to time for those who are not fit to drive, those who are touched by locusts, and those who have worms. Therefore, shepherds should be provided with the necessary medicines. Farm veterinarians should regularly visit the herds and provide close assistance to the herdsmen.

The good growth of young cattle in the field, their development as future high-yielding cattle depends in many ways on the will of the shepherds. That's why we should trust herds of young cattle to shepherds who have a lot of business experience, who have seen a lot of animals, and who have seen a lot of them.

During the selection period, all the flocks of ewes present in the farm will be examined simultaneously. The whole herd of first lambing ewes will be transferred to the old sheep line and removed from production. Until then, the flocks of ewes must be kept intact. If, for some reason, the flock needs to be replenished, then sheep of the same age as the sheep in the flock should be added to the flock. Breeding sheep flocks should also be supplemented with grade I age-matched breeding sheep.

Old, infirm, and low-breeding lambs should be removed from the flock and replaced with high-quality lambs.

Classification of cattle herds by age and sex groups is a basic requirement of livestock management. Fulfillment of this requirement will create favorable conditions for carrying out breeding and selection work, seasonal zootechnical measures and veterinary preventive measures, and will lead to elimination of several problems and reduction of costs.

Fall cutting process

In the conditions of Turkmenistan, the autumn harvest of cattle will be held from August 20 to September 15 every year. Harvesting at this time will result from many years of husbandry experience.

In the first half of August, the weather will warm up to +40+45□ degrees, sometimes even higher. Popularly, this condition is called "glowing fire". If sheep are shorn early in the summer, they are more likely to burn their skin from too much sunlight. As the saying goes, "It's sunny in the sun", after the sun rises, the weather will start to cool down at night.

You can't put off the shearing even later than the appointed time, because the wool of the animals raised in the fall will be contaminated with the thorny fruits of the field. As a result, it will be difficult to shear sheep with wool, and on the other hand, the quality and purchase price of wool contaminated by wool will decrease significantly. Completing autumn shearing in the first half of September, when the weather is too cold, will allow the ewes to develop wool and dry out before the lambing season.

When sheep are sheared, it is recommended to wear the saying "Spring lick, autumn lick". Because the summer wind will blow on the body of the sheep, which have been completely sheared in the spring, they will breathe better through the skin cover, and it will open up. But in the autumn nights, the weather will be very cold, so when the sheep sleep, the woolen cover will be placed under the bare belly so that the internal organs and the bed will not get cold.

The slaughterhouse should be set up according to the number of sheep. Shearing is usually done in designated shearing areas. If the number of sheep is less than 10,000, then it is convenient to use normal cattle sheepskin for slaughtering. The slaughterhouse must be cleaned and disinfected (disinfected) inside and out. It should be clean, bright and dry inside. The shearing shed must be equipped with fire fighting equipment, such as fire extinguishers, batons, axes, shovels, blankets, sawdust, and buckets of water. The shed should be divided into three sections with wooden beams intended for keeping and shearing the sheep to be sheared, sorting and packing the wool. When the wool is being shaken, it is necessary to collect the dust, small stones, straw and other debris that escapes from it, and fasten it under the table. Also, a trap should be placed next to the table to weigh down the wool.

The pre-shearing order of the sheep will show when the flock has arrived for shearing, and the shepherds will be notified. When preparing the schedule for the fall shearing of flocks, it is taken into account first to shear the ewes, then the breeding lambs and lambs, and finally the lambs. Diseased animals should be culled with full and unwavering adherence to hygiene and safety measures to ensure that the disease does not spread to healthy animals.

Cattle should be fasted for 15-20 hours before being brought to shearing. Because the cattle will suffer from the slaughter. They will swell up quickly when eaten.

The practice of washing the sheep before shearing will be used in two of the pastoral farms. By doing this, the dirt and dust from the wool will be washed away, the work of shearing the sheep will be greatly improved and the clean yield of the wool will be increased.

If the fall shearing is done on time, the conditions will be favorable to prepare the sheep for the lambing season. With the influence of the wind blowing on the body of the sheared sheep, sunlight and cool autumn nights, the blood circulation of the sheep will improve, it will open up and start to breathe. This will lead to the strengthening of the metabolism in the animal's body, which will lead to rapid drying and fattening of the cows. Generally, lean, medium, and high-fat dry cattle will come to the barn at the same time.

The improvement of the quantity and quality of the wool depends on the one hand on the skill of the shearers. The mower must get the mowing equipment working properly. Sheep shearers will be able to shear the wool smoothly by keeping the shearing tool easy on the sheep's skin. When sheep are sheared, the shearing tool must be moved twice. If this is done, the wool will be cut in two places, its quality will decrease, and it will lead to the loss of a certain part of the wool.

In contrast to spring wool, fall wool is available in whole bunches and splits and is not divided into quality grades (classes). Therefore, when collecting wool from the shearing yard, it should be collected separately according to shape and color, allowing the wool particles to mix together. Be sure to separate the yarn and fabric particles between the wool.

The fall wool is carefully combed according to its shape and color, thoroughly beaten, shaken, and then collected (dried). Wool picking and packing will be left to people with experience in this field. In accordance with the requirements of the Turkmen state standard, a note on the type, color and weight of the wool will be written on each ball of wool (kipe) and serial numbers will be marked.

During the slaughter, there are times when the animal's limbs are cut. Therefore, shepherds should monitor the injured animals during shearing and apply wound-healing drugs to the cut area. If the wound is large, appropriate treatment should be carried out with the help of a veterinarian. Veterinary measures against rabies and ectoparasites should be carried out in conjunction with autumn shearing.

Herd circulation and herd choosing by seasons

Nest rotation, in other words, refers to the use of nests attached to cattle herds in separate plots and the use of nests over seasons and years. The rotation schedule will be determined based on the type of grass in the field, the yield and the water supply of the fields. The diversity of herbivorous plants in natural desert grasslands, the change of types of grasses in the grasslands during the seasons, the fact that cattle eat the same plant in different seasons and in different quantities will create a basis for using desert grasslands seasonally.

3 main types of pasture rotation have been proposed by scientists for use in the natural conditions of Turkmenistan.

1. **Use the nesting area consistently throughout the seasons and rotate each year.** In this type of pasture rotation, the same pasture will be used in the spring season in the first year, in the summer season in the second year, in the fall season in the third year, and in the winter season in the fourth year. This type of hay rotation should be suitable for use in warm seasons due to the composition of the hay.

2. **Method of alternating spring knitting with winter knitting and autumn knitting with autumn knitting.** In this type of nest rotation, part of the nest will be used during the spring and winter months, and the other part will be used during the summer and autumn months. The advantage of this type is that it is possible to build winter beds in one part of the house, and there is no need to build winter beds in the second part.

3. **The method of alternating spring knitting with summer knitting and autumn knitting with winter knitting.** This type of pasture rotation is introduced when part of the agricultural pasture can be used in autumn and winter months, depending on the composition of the grass in the pasture, especially the quality of the well water.

One of the main characteristics of wells used to irrigate cattle in the desert is that their water is somewhat saline. According to the salinity level of the water and its suitability for liquefaction, wells are classified into the following categories:

1. Fresh water wells are suitable for use in warm seasons (salt content in 1 liter of water is up to 2 grams).

2. Wells with soft saline water are suitable for use in warm seasons (salt content in 1 liter of water is up to 6 grams).

3. Wells with salt water are suitable for use in autumn and winter months (salt content in 1 liter of water is up to 13 grams).

4. Wells with salt water are suitable for use in winter (salt content in 1 liter of water is 13-16 grams).

5. Wells with too much salt water are not suitable for watering livestock (the amount of salt in 1 liter of water is more than 16 grams).

Both fresh water and weakly saline wells will be used during the spring and summer months. This is because during this period the cows will drink the salty water with difficulty and the salty water will cause diarrhea in them. Salt water wells are recommended to be used during autumn and winter seasons. During this period, the coyotes will feed mainly on dry wood straw and will drink salt water a little better. For these reasons, the above considerations should be taken into account when planning grazing rotations.

Picking over covered seasons. Each of the seasonal measures in farming is carried out in seasonally fortified parts of the field. Lambing from ewes is usually carried out in spring lambing, cattle are fattened in autumn lambing - in the dead of summer, lambing - in autumn lambing, and wintering is carried out in separate winter lambing. The main purpose of seasonal rotation of pastures is to provide cattle with suitable, high-yielding pastures for each season.

The most responsible period of husbandry is the wintering period of livestock. Due to the cold weather in winter, the demand for fodder will increase. Choosing the right winter beds is one of the main tasks of wintering livestock. High-quality winter pastures are considered to be high-quality winter pastures with a composition of dry and semi-dry herbaceous desert plants (leach, sedge, sedge, wormwood, sedge, etc.). In addition to sedges and sedges, annual grasses are also suitable for overwintering livestock. This is because the annual shoras (birdeyes, shoras) are harvested with special vigor in the first half of winter.

During the winter period, it is necessary that the water bodies in the field are easy to feed the cattle, and the cattle should be watered from time to time.

Spring is the busiest period in cattle farming, during which the main tasks such as lambing and shearing are carried out. For spring, plots with high yields and lots of early spring flowering plants are ideal. As much as possible, spring pastures should be chosen on flat ground, because pastures are flat, and in high plains, it will

be difficult for the shepherd to control them during the grazing period. Lawns with flat surfaces and lots of ephemeral plants are ideal spring lawns.Fields with spring-grown ephemeral grasses, red and semi-red grasses are also suitable for summer use, while pastures dominated by annual grasses are not suitable for summer use. During the summer season, crops should be provided with fresh water.

Picture 14.Spring pasture

Choosing the right knitwear for the summer season is also very important. The ephemeral grasses grown in the spring from ryegrass, ryegrass, chickpeas, and barley that have been kept dry in the summer will serve as the most valuable fodder for cattle. In addition to dry grasses, it is necessary to have sedges, sedges, sedges, and sedges, which are good edible plants of the summer season.

In mountainous regions, ephemeral grasses are considered the best summer grasses, while in deserts, grassy-ephemeral or wormwood-ephemeral grasses are suitable for summer. In summer it is recommended to water the plants daily with fresh water.

Grass-dominated lawns are ideal for the fall season. There is a lot of evidence that one-year feedings have a beneficial effect on the body of cows, causing them to gain weight and increase the number of twin lambs.

In the fall, it is suitable to weave annual sorghum, sorghum sorghum, and sorghum.

In addition to freshwater wells, wells with moderate salt water can also be used during the fall season. The crops are burned in the sun every day at the beginning of autumn and at the end. During this period, cattle are watched both day and night in order to prepare them for slaughter.

In winter, the duration of the daily observation of the cows depends on the weather conditions. On warm days, the cattle will be kept in the field from sunrise to dusk, and they will rest for 1.5-2 hours in the afternoon.

In the spring, when lambs are taken from the flocks, they are observed during the day. During the summer season, in most cases, cattle are grazed at night because they do not graze well due to the scorching heat during the day.

Herd diseases and their prevention and treatment

Viral diseases: variola is a virulent viral disease characterized by swelling of the eyelids and discharge of serous-purulent fluid from the eyes and nose, damage to the internal organs.

Disease progression and symptoms. Maternal disease can be transmitted through air, contact, and simple (food, tool) routes. Diseased sheep are characterized by a rapid rise in body temperature, the appearance of papillose-pustulosis (fluffy-yellow) rashes on the hairless parts of the body, and the formation of cuts and hair loss. The latent period of the disease will last from 3 to 14 days, and if the disease is not treated, the animal will die in 20-28 days.

Prevention and control measures. In order to prevent maternal disease, it is necessary to carry out timely veterinary-sanitary measures and to carry out vaccinations with special biological drugs. All infected and dead cattle will be burned and destroyed. The places where they are kept will be disinfected with chemicals (2% formalin) and general economic measures (quarantine) will be implemented to prevent the spread of disease.

Treatment. Antibiotics and gamma-globulins will be used mainly to treat uterine fibroids. Various ointments should be applied to skin lesions, and iodine solution should be applied to wounded areas. The nasal cavity and moist eyeballs should be irrigated with a 2-3 percent solution of boric acid.

Brucellosis (brucellosis) disease. This disease is also called "Yokanch's disease" and it is one of the diseases that occurred in our country and caused great economic damage to livestock. The bacteria that causes this disease in cattle is called Brucella melitensis, and the main source of the bacteria is considered to be infected cattle.

Disease progression and symptoms. Brucellosis is often asymptomatic (persistent). After contracting the disease, it may take a long time before the first symptoms appear.

The main symptom of the disease is the shedding of the lamb in the second half of the estrus. Most of the lambed cattle are barren, and young cattle are born with disabilities that cannot survive. As a result of the disease, the joints of the animals, the genitals will be damaged and the upper respiratory tract will be inflamed. When the lambs' genitals catch fire, they will be unable to lead the sheep out of the fold.

Prevention and control measures. When animals are imported, they must be quarantined for 30 days and tested for brucellosis. Cattle with diarrhea or clinical signs of disease should be removed from the herd quickly. Cattle beds should be regularly disinfected with disinfectants.

When taking special measures against brucellosis of cattle, identifying the ways and sources of the disease and vaccinating the households at risk of the disease with vaccines will be one of the important issues.

Currently, live liquid Brucella melitensis REV-1 vaccine and colored antigen will be used to quickly diagnose the disease in our country to prevent bovine brucellosis. These products were produced at the Animal Husbandry and Veterinary

Science-Production Center and were deeply introduced to the livestock industry of our country.

Rabies disease. It is a very dangerous, fatal viral disease. The disease develops when the virus enters the body through the animal's saliva and is characterized by severe damage to the central nervous system.

Disease progression and symptoms. The incubation period of the disease will last from several days to several months.

Among the animals, this disease will appear with the following symptoms: drooling from the animal's mouth, loss of appetite. Then the movement of the animal is impaired, and on the second day after the disease, the feet will be swollen. The disease may also occur in an unusual manner.

Prevention and control measures. The main conditions for the fight against rabies are to keep dogs and cats, and to destroy sick and sick dogs. Also, it is important to protect livestock from wild predators in pastures and farms. Rabies and suspected rabies animals (except dogs and cats that have bitten humans) should be kept under the supervision of a veterinarian for 10 days. If there are no signs of rabies during that time, then the saliva of the bitten animal is considered to be free of the disease-causing virus.

Treatment. There is currently no effective treatment.

Anthrax disease. Acute infection is a chronic disease characterized by swelling in various parts of the body and damage to the lymphatic system. Bacillus anthracis, the causative agent of anthrax, is a rod-shaped microbe that forms spores in unfavorable environmental conditions, is inactive, requires oxygen for survival, and grows well in normal nutrient media.

The source of measles is diseased animals. The disease is transmitted by simple means, such as through food and water, blood-sucking insects, and dust, which harbors the spores of the pathogen.

Disease progression and symptoms. The incubation period will last 1-3 days. The main septic and carbunculosis forms of the disease are distinguished. Depending on the location of the lesion, there are cutaneous, intestinal, intestinal, and alveolar (anginitis) forms of the disease. Measles can go from acute to acute, chronic, and mild chronic to mild.

The number of animals that die from smallpox is considered to be the most important risk factor for the spread of the disease. It is forbidden to slaughter or open the door of a suspected or dead animal. An animal that dies of this disease will swell and ooze blood-tinged fluid from its natural orifices. The blood will be dark in color and will not clot.

Prevention and control measures. Preventive measures consist of accurate registration of the places where the disease occurs, disinfecting those places and the carcasses of animals that died from smallpox and their burned places, annual immunization of animals with special vaccines and veterinary-sanitary measures in the areas where the disease occurs.

Treatment. Hyperimmune serum, gamma-globulin, antibiotics, and immunosuppressive drugs will be used against measles.

Blood-parasitic diseases of cattle. There are several types of this disease, including piroplasmosis, babesiosis, theileriosis, and anaplasmosis. These diseases are seasonal in nature, occurring in spring, summer and autumn. Rabies is spread by the transmission of the disease from infected cattle to cattle when grasshoppers attack cattle to feed on blood.

Disease progression and symptoms. The incubation period of the disease is 9-14 days. The first symptoms of the disease are an increase in the temperature of the animal's body. The temperature can be up to +42°C in the summer months. The color of the mucous membranes of the oral cavity and genitals will turn pale and yellowish. The animal will start to get tired, lose weight, become lethargic, and the animal's urine will turn red. If a sick animal is not treated, it will lead to death.

Several complex methods will be used to diagnose the disease. It is necessary to register the data of the clinical conditions of the sick animals and take blood samples from the animals, conduct microscopic examinations and determine the types of pathogens in the blood.

Prevention and control measures. The fight against the disease consists of several complex measures. Chemical prevention of the disease, for this solution, you should use chemical drugs such as azidine, berenil, diminasene. Cattle will be vaccinated at the start of the rabies season (March). Vaccinations should be repeated every 10-12 days until the end of the flea season (until the end of November).

Against blood-sucking grasshoppers, livestock should be washed with water solutions of insectocaricidal drugs (diazinon - 0.1 percent, Cypermethrin - 0.02 percent, Deltamethrin - 0.02 percent). Depending on the duration of drug exposure, diazinon and neoacidol should be administered every 6-

After 7 days, and every 9-10 days using cypermetrin and deltametrin, the cattle should be washed until the end of the disease season.

Treatment. For the treatment of cattle with leprosy diseases, it is recommended to use 7 percent water solutions of azidine and berenilin, 5 percent diminasenin, antibiotics, vitamins, and microelements from veterinary chemicals.

Fascioliasis of cattle. It is an acute and chronic disease. The causative agent of this disease in cattle is the tapeworm Fasciola hepatica fasciola. Eggs of fasciolas come out with animal dung, larvae emerge from them in swamp pastures, and they enter the body of fish (molluscs) and live there for a while, then leave the body of molluscs and stick to the grass. Blueberries contaminated with fasciola spores will enter their stomachs when they are cooked. From there, the bacteria will travel to the animal's liver, where they will grow and reproduce.

Disease progression and symptoms. A sheep infected with acute form of liver fluke will accumulate water in the abdominal cavity, the cattle will not be able to graze, the work will be interrupted, and the return of the cow will be disturbed. The wet coat of the animal is yellowish in color, the temperature of the body will rise to +41.2-41.6°C and the sheep will enter. Diseased heart and respiratory system will be disturbed and animals will die. In a prolonged form of the disease, cattle will become emaciated, lose lambs, become unfit for the herd, and suffer from swelling of the throat. If the disease is prolonged and the infected animals are not treated by veterinarians, they may die.

Disease Prevention and Treatment. Cattle herds should be treated with anthelmintics (deworming) at least 2 times a year as a disease prevention measure. Alben, albendazole, panacur and carbon tetrachloride drugs should be used to treat the animals. Alben, albendazole and panacuri should be taken with water in the amount of 5 grams for large sheep and 2.5 grams for calves. Carbon tetrachloride should be injected into the large intestine from the left side of the animal in the amount of 2 ml to the large sheep and 1 ml to the cows. To protect cattle against liver fluke, waterlogged swamps should be drained. Against fish (molluscs) growing in those swamps, copper sulfate solution should be used in a ratio of 1:5000 with water in the amount of 10 liters per 1 m2.

Moniosis of cattle. This disease mainly affects young animals, i.e. calves. Moniesia benedeni and Moniesia expansa species are considered to be the most common carriers of gastrointestinal disease in cattle. Large sheep are carriers of monemia and do not fully show clinical signs of the disease. Monesia eggs are excreted in the dung of a sheep carrying monesia and are washed away by small oribatid grasshoppers that live in pastures. Eggs hatched by those wasps will develop into an infective state (that is, the eggs will hatch into larvae) in the wasp's stomach. Cattle also feed on grass and oribatid (Acariformes oribatei) mosquitoes during grazing. The larvae of monesia in the sheep's stomach will migrate into the small intestine of the sheep, where they will develop and feed.

Disease progression and symptoms. Symptoms will depend on the number of worms in the animal's gut. Diseased foals will become weak, fall behind the herd, and the cattle will suffer from diarrhea. The stool will be liquid and dark in color. In this case, if the animal is not given medical attention, it will lead to the death of the animal.

Disease Prevention and Treatment. To prevent disease, young animals should be kept in separate pens from older animals. Prevention of ticks should be carried out - deworming. This procedure should be done every 2-2.5 months. For this remedy, anthelmintic drugs such as mucilaginous zinc, copper sulphide, albene and albendazole should be used. Medicines should be used based on approved indications. Large ewes should drink 1 cup of muscular zinc, 0.5 cups of doe, 1 percent water mixture of copper sulfate in large ewes, 80-100 ml, 30-40 ml for goats, albene and albendazole should be given in 5 grams for big ewes, 2.5 grams for goats. Ringworm disease (senurosis) of cattle. This disease is caused by the larvae of the Multiceps multiceps worm.

Coenurus cerebralis. The worm will lodge in the brain and compress the brain. Multiceps multiceps, the causative agent of this disease, lives in the intestines of dogs, jackals, and foxes, and the eggs of the worm are released in the feces and spread to the pasture. Cows wash the worm eggs with fire. The larvae leave the animal's intestine, attach to the intestinal wall, enter the bloodstream, and travel to the brain, where they begin to develop. The larva will grow by accumulating a watery sac around itself.

Disease progression and symptoms. Affected foals will begin to suffocate, become timid, the animal's body will tremble, and the moist lining of the foal's eyes

will turn red. As the disease progresses, the foals will lag behind the herd, start walking around while standing, or run away from the herd in a different direction.

Disease Prevention and Treatment. One of the main preventive measures against the disease is to treat the herding dogs in the herd with anti-rabies medication. Shepherd dogs must be treated twice a year. For this solution, dogs should be given an aqueous solution of arecoline drug at the rate of 0.004 grams per kilogram, keeping the dog on an empty stomach for 10-12 hours, or phenesal drug should be given to the dog in the amount of 0.1 grams per kilogram of food. In the treatment of diseased foals, a surgical method should be used or foals with senorosis should be separated from the herd and placed in a herd.

Cattle rabies. There are four types of this disease (psoroptosis, sarcoptosis, chorioptosis and psorergatosis), the most common of which is the psoroptosis caused by the psoroptes longirostris ovis. When these ticks come into contact with the skin of infected animals, they can fall through the equipment used for them, shepherds' work clothes, mosquito nets, collars and collars, causing a long-lasting itch in the animal bath.

Symptoms. Fried rice will burn, start to spoil and the performance of the animal will decrease. A layer of skin will remain on the affected area, the hair will fall off, and the area will be cut and removed.

Disease Prevention and Treatment. Cattle in the herd must be separated from the herd and treated. In order to treat the animal, it is necessary to apply an insectocaricide-active ointment to the place where the animal was laid, or to inject drugs containing ivomec, ivermectin, and aversect. In addition, it is recommended to use "Chalgy Yag" and "Bentophos" ash medicine, developed by the Animal Husbandry and Veterinary Research and Production Center, to treat cattle rabies. These veterinary medicines differ in that they are prepared on the basis of local raw materials and have a low cost and high efficiency.

As a disease prevention measure, during the spring and fall mowing, shorn cattle should be washed with an insectocaricidal medication, as well as hay. Goods are washed with aqueous solutions of diazinon - 0.15 percent, neocidolin - 0.15 percent, cypermethrin - 0.01 percent.

Ovarian oestrous disease. Oestrus disease of cows is caused by Oestrus ovis worms. They are powerful in the nasal, sinus and nasal cavity and cause inflammation in their moist membranes.

Disease progression and symptoms. Nasopharyngeal lice attach their live larvae around the nose of an infected person. Larvae will move quickly and burrow into the nasal cavity where they will pupate and begin to develop. Symptoms of the disease will appear as a result of the maggots causing inflammation in the moist coverings. Malin will have drooling, difficulty breathing, and discomfort. If the fire reaches the brain, it will shake its head or put it on the ground, start spinning in its standing position or leave the herd. If the number of maggots is large, they will cause the death of the animal if they get into the brain.

Disease Prevention and Treatment. Cattle affected by this disease must be separated from the herd and treated. The drug should be sprayed into the nasal cavity with an aerosol drug "Estrasol" or a 2-3 percent aqueous solution of chlorophosin

should be sprayed into the nasal cavity. To treat diseased populations, cattle should be drenched with a 0.3 percent aqueous solution of chlorophosin. Also, cattle should be treated against "nose and throat" infections during periods of their attacks. It is recommended to use 0.2% diazinon, 0.01% synermethrin or 0.01% deltamethrin with water solutions every 8-10 days to treat worms.

Livestock diseases: bronchopneumonia - this disease occurs when the conditions of keeping and feeding the animals are disturbed, especially when the interior of the animal beds is windy and dirty, and it is caused by the increase of ammonia and carbon dioxide. If not given timely medicine, the normal stability of the body will weaken and cause disease.

Symptoms. A sick animal's body temperature will increase, saliva will flow from the nose, there will be a persistent cough, it will be difficult to breathe, and it will stop working and suffocate.

Treatment. Vitamins A and D are given according to the symptoms of the disease. Antibiotics, 10 percent calcium chloride and 40 percent glucose solution, iodine, and antibiotics can be administered. As soon as the sick animals recover, they should be regulated by their housing conditions and provided with high-quality fodder.

Tympania (abdominal inflammation). This disease occurs due to the accumulation of large amounts of gas in the large intestine. Cattle are prone to colic if they eat rotting, rotting, or rotting forage early in the morning.

Symptoms. Sick animals will have a very swollen abdomen. The left side of the stomach does not show the size, in the case of the animal, the elbow will be cut, his breathing becomes more labored, his heart beats faster, and his bowel movements become more difficult.

Treatment. To administer first aid, rub the left side of the cow's abdomen vigorously and move the animals. In severely swollen animals, in the presence of a veterinarian, the left side of the abdomen should be punctured with a trocar and the gas should be gently removed from the stomach. Through the opening of the abdomen, solutions of ichthyol, creolin, and turpentine-based medicines should be injected into the stomach.

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