# Fundamentals of Creating New Drives and Lines from The Gene Fund of Angor Goats

**AUTHOR(S):** IZATULLA YANGIBAEVICH ESHMATOV,
AYSULUV MAYLIBAEVNA SVANKULOVA
AND
BAKHTIYOR KHASANOVICH DAVRONOV

**Abstract**

The article provides ideas on the creation of herds and lines using the gene pool of angora goats, the use of selection methods based on selection work, and the assessment and testing of goat breeding.

**Keywords:** selection, gene pool, angora breed, pure breed, selection, sorting, growth, development, productivity, live weight, nutrition, feed unit,

**About Author**

Author(s): **IZATULLA YANGIBAEVICH ESHMATOV**
Head of the Department of Sheep and Goat Breeding, Research
Institute of Animal Husbandry and Poultry, Ph.D., Uzbekistan.

**AYSULUV MAYLIBAEVNA SVANKULOVA**
Laboratory Assistant, Sheep and Goat Research Institute,
Livestock and Poultry Research Institute, Uzbekistan.

**BAKHTIYOR KHASANOVICH DAVRONOV**
Basic Doctoral Student (PhD) of the Research Institute of Animal
Husbandry and Poultry, Uzbekistan.
E-mail: baxtiyordavronov95@mail.com

**Research goals and objectives.** Maintaining the gene pool of Angora goats, creating high-yielding herds and lines of wool.

**Research materials and methods:** angora goats, mother goats, young goats. Zootechnical selection, evaluation of angora goat tivit and wool productivity.

**Relevance of the research:** In goat breeding, in order to preserve the gene pool of angora goats and to preserve and accelerate the reproduction of their offspring, the use of purebred breeding of angora goats, the use of selection methods in the separation of lines within the breed and evaluation of breeding goats and mother goats is one of the current tasks today.

Location and methods of research. The research was conducted at the farm named after A. Rustamov, which specializes in the Angora breed of goat breeding in Chust district of Namangan region.

**Research results.** The basis of selection work is the selection, care, early detection of pedigree goats of Angora goats, increasing the level of effective use of heifers in the next selection work.

Selection methods based on similarity traits were used for the studies. This takes into account the origin, pedigree, age, live weight of the goats and mother goats, the pedigree of the father in terms of productivity of the parents.

Experimental goats are selected on the basis of the zootechnical documentation on the farm on the basis of origin and productivity.

Goats in the experimental group are provided with conditions for maintenance and feeding, taking into account their live weight, productivity, physiological condition.

At 3 months of lactation, goats are examined by measuring 8 body measurements from the outside: fat and hump height, breast depth, breast width and circumference, body slope length, posterior pelvic bone width, and leg circumference.

The exterior and body indices of goats, udder, fertility and feed coverage of the product are studied in generally accepted methods.

The world's population is growing year by year. In particular, the steady growth of the population of Uzbekistan leads to a growing demand for livestock products and production volumes. Ensuring large-scale production of livestock products by livestock breeders is one of the important tasks. Innovative development of animal husbandry, as well as the improvement of breeding in the breed, the use of various methods of breeding on a scientific basis, as well as the use of effective methods of breeding new breeds are among the most important issues.

The adoption of the Resolution of the Government of the Republic of Uzbekistan and the President of the Republic of Uzbekistan dated December 29, 2015 No PQ-2460 "On measures to further reform and develop agriculture in 2016-2020" Clear priorities have been identified, such as highlighting the scientific and practical basis for the use of advanced technologies of foreign countries in breeding, creating conditions for optimal storage and feeding, and communicating to farmers the use of many methods of production.

Problems such as the application of effective methods in the development of world science in the selection of goats in Uzbekistan, the creation of high-yielding breeds of goats bred in different natural climates and the rapid increase in their number and production of large quantities are waiting to be solved.

It is important to improve the breeding of goats on a scientific basis, to improve the genetically unique traits of goats on a scientific basis, to effectively use the selection of

purebred heifers imported from abroad, as well as the use of pure methods of breeding and breeding and breeding new generations.

An important task for scientists is to pay attention to the selection and selection of Angora goats on the basis of selection work and to prove the scientific basis for the formation of high-yielding groups of local goats and the formation of selection groups from them on the basis of "in-house" breeding of high-yielding hybrids.

In the alcohol industry, the gene pool of angora breed allows to create a scientific basis for the production of many goats, wool, meat and other industrial products from goats in a short period of time and to introduce them to innovative producers in practice.

Research has been carried out on fundamental, practical and innovative projects on local coarse-wool goats, woolly, long-tailed, angora goats created in Uzbekistan, the scientific basis for the improvement of existing goat breeds has been developed and effective methods have been used. In particular, the Government has created great opportunities for the further development of milk and wool in the alcohol industry, obtaining quality products from them, the creation of technologies for storage and processing of products, which is the basis for further development of the alcohol industry.

New types of goat breeds of different directions have been created in Uzbekistan.

High-yielding angora goats are bred in Pop, Chust, Kosonsoy, mountainous and foothill districts of Namangan region, Koshrabat, Samarkand region, Forish, Navoi and Surkhandarya regions of Jizzakh region. The number of goats of this breed is about two million.

The number of goats bred in neighboring countries - Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, the Russian Federation, Ukraine, Belarus and others - is 6 million 947 thousand.

Laws and regulations adopted by our Government on the reproduction of livestock products and the development of breeds on a scientific basis, as well as a number of decisions, decrees, orders are being applied to the correct analysis and production.

Taking into account the above-mentioned legal documents, it is expedient to develop wool-spinning in the suburbs of large cities, in the centers of light industry. However, the formation of wool farms as a specialized auxiliary sector, the introduction of production in accordance with the technology of production of goat wool and their scientific study and dissemination to the public are important tasks today.

Determining the specific productivity of purebred angora heifers allows to study the characteristics of the rapid maturation of the kids, to test them at 12 months of age. At 18-24 months of age, the herd is used as a breeding heifer.

When testing pedigree goats, elite and Class I-rated mother goats are selected from the main herd of breeding goats, and pedigree goats and mother-goats, which are found to have high productivity, are paired with each other.

Newborn young males and females are evaluated during the evaluation. 50-60 head of mother goats are naturally inseminated during the breeding season with one head of breeding heifers.

Young offspring of breeding goats are estimated at 4.5 -¬5 months.

In the evaluation of the quality of the offspring of breeding goats, the kid with the highest scores of 4 and 5 points is the pedigree.

The accounting documents of breeding mother goats are made in the register books kept on the farm.

Each newborn kid is recorded in a separate special book. Sequence numbers in the ears of goats, live weight at birth, 4.5 - 5, 12 and 18 months, as well as evaluation indicators during the evaluation are recorded.

When the purebred method of insemination is used on the farm, the herd of goats is mainly filled with females and heifers rated by elite and I-class, and breeding records are kept in them. In the herd, the "breeding core" of the pedigree mother goats with good performance is determined, and a selection plan is developed, according to which separate calculations are carried out.

Homogeneous and heterogeneous selection methods are used in the individual selection of Angora goats, as well as selection methods.

The required amount of quality feed for goats is prepared, care and feeding technologies are applied.

When young goats are plundered, the wool productivity characteristics of their ancestral ancestors are taken into account.

In-breed fertilization is carried out in purebred goats. The breed of purebred angora goats will be improved, pedigree goats and mother goats will be selected from the breed, and selection methods will be used in the lines as their offspring.

The main focus in the selection is on the care and maintenance of goats of angora breed goats with strong, strong, productive, well-developed body part and excellent quality.

When angora-bred goats and goats with high genetic characteristics are selected individually, their quality indicators on productivity traits in their offspring will be strengthened, as well as quality indicators on key selection traits will increase in breeding.

The optimal feeding rate is determined in the care of Angora goats, and their biological characteristics are taken into account when feeding. Conditions are created for the emergence of the main hereditary traits that are useful for the economy.

In the selection of Angora goats, goats that are easy to breed during the breeding process are selected and separated, with which it is possible to fill the main selection groups in any goat herd and divide them into groups according to productivity and quality, and remove unfit goats from the herd.

Young kids that fill the herd are selected in 2–3 days.

This takes into account the specificity of the live weight, exterior and constitution of goats in the direction of productivity. Their care is supplemented with concentrated feeds, grazing in the best meadows in separate groups. During the winter, young kids are fed with additional hay and strong nutrients to ensure live weight gain, sustainable development of body structure.

Separation of kids into breeding groups is selected by filling the herd in the spring (at least with a grade I grade).

In the fall, before the mother goats are weaned, the breeding heifers are inspected again, and selected for inspection on breeding quality.

When testing pedigree goats on the quality of their offspring, first-class mother goats are selected. The breeding quality of kids is comparable to the quality indicators of their mothers.

A mother goat of a different class is selected when breeding mother goats with high-yielding pedigree goats. With this method of evaluation, the superiority of the breeding goat is compared with the productivity set in the model of this breed, as well as the efficiency of goats of different classes is determined. For this measure to be effective, it must be more clearly manifested in the conditions of good feeding and care of the goats.

The daily and monthly weight gain of the young offspring obtained from the breeding heifers to be tested is estimated. The obtained offspring are evaluated for the first time at 4 - 5 months of age, the number of kids, the description of the quality of the offspring, the productivity of the breeding goat and the degree of similarity are studied comparatively. The final evaluation of kids is carried out individually, taking into account the breed at 12 months of age, based on the number of young kids that have survived for one year from birth.

After checking the quality of the pedigree heifers, the mother goats are selected in groups. Mother goats, which have been excellent and well-priced for two years, are considered the best if they pass on their qualities to their offspring. Mother goats that have given unsatisfactory offspring twice in a row are transferred from the selection group to another production group.

Prior to the creation of the offspring, the mother goats are selected to give a good offspring that is close (similar) to it in terms of productivity characteristics, good offspring per head (line). With the signs and characteristics of the head of the generation (line), goats are inseminated in order to obtain offspring that are similar to each other in the next insemination.

In breeding, it is possible to identify any traits and characteristics in the new generation by creating a new generation between generations, as well as by mating pedigree goats with mother goats of unknown origin.

## Conclusion

When testing Angora goats, elite and Class I goats were selected from the main herd during the breeding season, and pedigree goats and mother goats with high wool productivity were selected.

In the selection of goats of the Angora breed, it is possible to test the heifers at the age of 12 months in natural or artificial breeding. Pedigree horses are used in herds at 18 and 24 months of age as breeding horses in herds. During the breeding season with one head of breeding heifer, 50-60 heads of mother goats were inseminated naturally or 100-120 heads were artificially inseminated.

The young goats with the highest scores of 4 and 5 are considered to be pedigree goats, and the best goats are those if the mother goats, which have been excellent for two years, pass on their qualities to their offspring.

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