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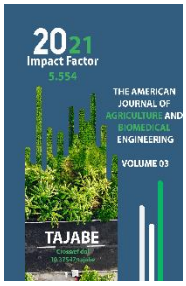

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Methods For Preserving The Most Valuable Gene Pool And Breeding And Tribal Work When Creating Gene Pool Studs Of The Karakul Rocks Of Sheep Surkhandarysur

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ABSTRACT

The article presents that the problem of preserving, restoring and reproducing the Karakulic gene pool of sheep, including animals of the most valuable sheep surkhurkhandaryin type, as well as a fundamental improvement in the quality of rare and original karakulian skins, the development and improvement of breeding methods in the farm and targeted work It has important scientific and practical importance in the development of the industry of the karakutyrmedy in Uzbekistan.

KEYWORDS

Genuofund, genetic potential, original, paint, colors, zootechnical, biometric, statistical, analytical, tip, pigment, phenotype, homogeneous, heterogeneous.

INTRODUCTION

At present, Uzbekistan has great opportunities, both for the growth of the number of Karakul Sheep and to increase all types of products of the industry. There are (more than 20 million hectares of desert and semi-desert natural pastures); There are unique factory and breed types of karakul sheep, characterized by high genetic potential of productivity and good adaptation to various natural and climatic conditions.

Modern methods of breeding Karakul Sheep under the influence of economic factors and in connection with the implementation of insufficiently developed programs for the development of industry intensification led to threatening unification, loss of genetic

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diversity and loss primarily of the unique factory and breed types of sheep.

Currently, 31 populations (factory types) of karakulsheep stopped exist Karakum (sur, black color), Sverdlov, Uluss, Bobatag, Gagarin, Sikhan, that is, 25.8%, at the stage of disappearance - Samarkand white color, multi-window black painting , Tamdi and Nuratin types -16.1%. [2].

In Uzbekistan, much attention is paid to the preservation of the diversity of the sheep of karakul rocks, the supply of valuable furs to world markets that meet the requirements of industry. In particular, the volume of production of the doodle and the number of livestock of the Karakul breed was increased.

Work on the tribal work was improved on a scientific basis, work was established on periodic monitoring of the production of high-quality products and conducting public control. In this regard, in Uzbekistan, in order to preserve, restore and improving the quality of the skins, the Surkhandaryasura, selection and genetic methods have been developed that are widely implemented in karakulodic farms.

Thus, the problem of preserving, restoration and reproduction of the karakulic gene pool of sheep, including animals of the most valuable sheep Surkhurkhandary type, as well as a fundamental improvement in the quality of rare and original karakul skins, the development and perfection - the development of breeding methods in the farm and targeted development of work has Important scientific and practical importance in the development of the industry of the karakurevyiv region in Uzbekistan.

The dissertation studies were carried out in the framework of the applied project № KXA-8-059-2015 on the topic: "Development of selection and genetic methods for preserving the gene pool of the karakulsheep Surkhandary sur" according to the plan of research and development work of the research president of the Karakutyreavy and ecology of the desert in the farm LLC "Bobotog-suri koraculchilik" district of the Surkhandary region Res.Uzbekistan.

The purpose of the study is to determine the scientifically substantiated breeding and genetic methods for analyzing, preserving and breeding the gene pool of rare and unique colors of the karakulsheep surSurkhandary type.

RESEARCH TASKS:

- Substantiate and characterize the degree of unique and valuable paints of sur, taking into account the uniformity and overflow of the colors of the karakulsheep surhurkhandary type;
- Determine the biochemical indicators of blood (enzymes, minerals, etc.) of the karakul sheep sur of different colors;
- To substantiate the degree of inheritance and characterize the pairing of karakulsheep with homogeneous and heterogeneous varants of rare and valuable colors of SurSurkhandaryin type;
- The preservation of the henofand of the Sheep SurSurkhandarya breed type, the restoration and reproduction of the herd of rare colors, as well as the development of selection and genetic methods for increasing sheep productivity and the introduction of them into production.

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RESEARCH METHODS

Obbiological, zootechnical, biometric, statistical and analytical methods.

In the karakulsky sheep, the sheep color of sur is divided into three in-resistant types: Bukhara, Karakalpakian and Surkhandarya. In each of those types there are many colors, which are determined mainly by the intensity of pigmentation and the relative length of the light distal and dark basal parts of the hair. [2.3.4.].

Perennial breeding work in sovavoda them Y.Gagarin Kumkurgan district under the leadership of N.S. Giginoshvili ended with the creation of a Surkhandarya breed type of karakulsheep sur, the color gamma of which includes bronze, platinum amber, anthracite colors. [1.4.6.].

Karakul skins of the Surkhandarya breed type are distinguished by a variety giving amazing in beauty, varied on curls and uniqueness in order of coloring and shades that are in great demand in the domestic and foreign markets. The birthplace of this unique population of Sur color is the middle-ephemeral and foothill territory of the Surkhandarya region. [1.4.].

It is known that harsh color is created uneven pigment distribution through hair length. Surkhandaryakarakulicolor surie is characterized by various degrees of pigmentation, the base of the hair is weakened by black or dark brown, and the hair tip from white to the milk-cream, it is this distribution of pigment in the hair, creates the kindness and beauty of numerous variations of this color.

Karakulsheep Surkhandaryin-type produce original, amazing and unique skins in various colors.

The demand for color doodle of valuable colors and colors requires an increase in production and simultaneous enrichment of its range.Coloring, Surkhandaryasura can be described as follows:

Platinum colors are currently the most valuable aesthetically and commercially due to their bright, catchy colors. It is characterized by a light cream or white surface of the hairline, which is superimposed on its brown or coffee lower tier. Coloring is formed by the concentration of pigment in the lower zone of the hair and almost complete discoloration of its distal end, which occupies 45-50% of its entire length.

The color goes well with a semicircular and ribbed roll, high gloss and silkiness. Along with the color equalized over the entire area of the skin, an incomparable platinum astrakhan fur is often found: with light lateral two-thirds, there is a "belt" of harsh hair all the way from the neck to the tail. Adult animals are rather (relatively) large, rough and strong in constitution, well adapted to the conditions of the piedmont semi-desert.

The amber color is lighter in color than the platinum layer, and the color of the surface is darker. Therefore, it is relatively less contrasting and has a gradual transition in color tone from the base to the end of the hair. It is characterized by a yellow surface of the hairline of various shades to, yellow-golden or yellow-orange, which is superimposed on its brown or light brown lower tier. In the

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overwhelming mass, the smushka is equal in area, with a strong shine and excellent silkiness. It goes well with long rolls of semicircular, flat and half-twisted types.

Bronze in a darker soothing tone with less severity contrast than the first two. It is characterized by the upper bronze tier and the lower dark brown.

The color of the bronze tier is similar to the color of bronze at its fracture. The highlighted area occupies 30-35% of the entire hair length. It is stably combined with all the positive signs of the structure and quality of the hairline. This is the most common color of the Surkhandaryasura, the most persistently inherited.

Anthracite coloring is characterized by an intense black color of the base of the hairline (lower tier) and a shallow (not more than 20%) upper tier of ash-steel color. The coloring is obtained on the basis of short-haired smushkovy types - broadtail and flat (thin). It is usually accompanied by a strong shine and silkiness. Close to the described hair color, which has a less intense pigmentation of the main layer and a brownish-yellow upper layer, which occupies up to 40% along the hair length.

Until recently, the colors of different variations were not given due attention, both on the part of breeders and commodity experts.

The lambs of the suras of the breed type of the original (valuable) colors were hammered into smushkas, besides, science and practice did not have effective methods of their selection and breeding, as a result of which the increase in the number of animals of the original colors was very slow.

The methodology and stages of creating a specialized (high-yielding) herd were carried out and tested in the pedigree plant "Bobotog suri korakulchilik" LLC.

In the herd of the farm, both the experimental part of the work and the collection of materials (data) for this work were carried out.

Directed selection and breeding work on the assessment, selection and selection of karakul sheep of original colors was started on the farm in the middle of the last century, under the leadership and direct participation of an employee in the (VIJ of animal husbandry) N.S. Gigineishvili and his students. The genetic nature of the coloration and coloration of the Surkhandaryasura has not yet been revealed; in all likelihood, such a splitting is the result of population variability. [2.5.].

All this served as a scientific basis for research and selection work on the creation of highly productive herds of karakul sheep of the Surkhandarya type.

In our studies, the following were developed: criteria for evaluating animals of the Surkhandaryasura, principles and methods of selection, selection by phenotype and origin, as well as sorting of karakul skins. At the same time, a more complete characteristic was given of economically useful, morphological and biological characteristics of the sura sheep, the existing colors of the Surkhandarya breed type.

An important factor in the growth and development of animals is the intensity of biochemical processes occurring in various organs and tissues of the growing organism. In the process of growth, in certain age periods,

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the metabolism occurs with different intensities.

The biological role in the internal environment of the body is closely related to water metabolism and acid-base balance in the body, providing a normal level of osmotic pressure, affects the course of enzymatic processes. The constancy of these processes is ensured by a certain concentration in a constant ratio of cations and anions in external and internal liquids.

Due to the fact that there are two levels of potassium in the body of animals, low (LK - type) and high (NK - type). They are of great biological importance.

It was found that sheep with a high potassium content consume less water and tolerate high air temperature better than sheep with a low potassium content in their blood. [2.].

Especially in the metabolism of carbohydrates in the body, the role of potassium is very large. During the formation of glycogen in cells with a decrease in the amount of potassium in the blood plasma, the interstitial fluid decreases, and its amount in the cells increases. In addition, it was revealed that without the necessary supply of potassium to the body, it is impossible to build protein molecules in messenger RNA.

The level of potassium concentration is associated with the adaptation of animals to extreme living conditions, which plays an important role in the fertility of sheep. The results of the study of the concentration of potassium in the blood of karakul sheep by color and origin are presented in the table.

Table 1

Distribution and frequency of alleles for low and high levels of potassium in the blood of karakul sheep

Coloring and coloring	Animals taken into account (heads)	NK -type		LK - type		Allelefrequency	
		n	M±m	n	M±m	K^h	K^L
Black	104	77	148,5±2,57	27	59,5±3,72	0,872	0,128
Sur Bukhara type	82	58	161,9±2,78	24	63,5±2,97	0,883	0,117
SurSurkhandarya type	122	89	131,0±1,71	33	64,3±2,11	0,815	0,185
Total	308	224	147,1±2,35	84	62,4±2,93	0,856	0,144

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The potassium content in the blood was high in 224 animals (72,9%) and low in 84 (27,1%). The frequency of the recessive allele in the selected group of sheep is Kh– 0,815–0,883, and the dominant allele KL – 0,117–0,185.

The distribution of different levels of potassium in the blood of experimental groups of animals varies depending on the recessive gene kh of the frequency of animals. If the allele frequency of the Surkhandarya breed type sura sheep is counted as 100,0 then in black sheep this indicator is – 107,0 and in Bukhara type sura sheep – 108,3. The difference is statistically significant (P <0.001).

Work on the creation of highly productive herds was carried out in stages. Together with the specialists of the economy, when creating this type of animals, at first they carried out the accumulation of breeding material, the formation of breeding groups, the selection of lambs of the desired and typical sura colors, mainly heterogeneous (heterogeneous) selection by color was used, in order to reproduce and increase the number of Surkhandaryasura sheep.

The main methods of breeding karakul sheep, taking into account the colors, is homogeneous and heterogeneous mating.

At the same time, about- 60% of similar lambs can be obtained from heterogeneous mating, the yield of other colors will be about -25%, ewes from this selection were covered with rams - producers of valuable colors (platinum, amber, bronze, anthracite).

It should be noted that an important process in breeding is the consolidation of the original colors and the consolidation of the valuable smushy qualities of highly productive animals, from homogeneous color matching, that is, leaving the maximum number of rams of the original colors of the desired type, using strict selection.

In the selection of Surkhandaryasura, special attention will be paid to enhancing the pigmentation of the lower tier of the hair, when checking the rams for the quality of the offspring. With a homogeneous selection of colors, up to 60 - 70% of their own kind and 12-15% with less valuable colors are produced.

For a homogeneous selection, to obtain clear breeding characteristics of the SurkhandaryaSura, it is desirable to form separate brood flocks of each valuable color, which will make it possible to consistently obtain lambs with original and valuable colors. In further breeding work, the breeder solves the problems of reproduction of sheep coloring surs of the Surkhandarya breed type of original and equalized colors: platinum, bronze, amber, anthracite for further consolidation of the productive characteristics of indicators based on the wide use of ram enhancers.

The results of inheritance of colors during homogeneous mating of Sura sheep of the Surkhandarya breed type are shown in the table.

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Table 2

Inheritance of colors in offspring with homogeneous mating,%

Selectiontype	Considered (heads)	Colors of lambs,%				
		platinum	yantar	bronze	anthracite	others
Pl. x Pl.	40	71,6	7,9	7,5	10,0	3,0
Yan. x Yan.	40	14,1	68,5	4,7	12,4	0,3
Br. x Br.	40	10,9	13,7	71,5	2,6	1,3
An. x An.	40	-	3,6	-	92,1	4,3

Primechanie: Pl. - platinum; Yan. -yantar; Br. - bronze; An. - anthracite.

As can be seen from the table, 71,6% of platinum lambs and other colors of 28,4% were obtained from platinum-colored sheep; yan colors – 68,5% and 31,5%; bronze -71,5% and 28,5% and anthracite colors – 92,1% and 7,9%.

Homogeneous mating of Surkhandarya breed-type sura sheep contributes to the transmission of heredity of parental pairs of sura colors, strengthening of offspring, and an increase in the coefficient of heredity. This will serve the reproduction of rare and valuable colors.

At this stage, a more in-depth selection is carried out, a strict selection, a targeted selection, with the implementation of the culling of unwanted animals up to one year of age.

As mentioned above, the problem of preserving the gene pool is also relevant in the colored karakul breeding. In this regard, having comprehensively studied the morphological, biological characteristics, productive qualities of the Karakul sheep of the suras of the original colors (bronze, yantar, platinum, anthracite), we, together with the specialists of the Bobotog-suri breeding plant, created a collection of animals at farm No. 3, such as a reserve of valuable genotypes. In two flocks (st. Shepherds Ashirov Mansur, ZhuraevBakhodir).

To preserve the gene pool of sheep of original colors, we have developed a breeding system. At the same time, specific in this system are: the genealogical structure of the broodstock and producers and the methods of selection and selection.

Since the purpose of preserving the gene pool of sheep producing original colors is to maintain genetic diversity, directed selection in gene pool flocks is inappropriate, since it leads to changes in the genetic structure of animals (population).

CONCLUSIONS

1. Study of the biochemical composition of the blood of the Surkhandarya breed type

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sheep showed that the content of the norm of the element of potassium in the blood of the surrogate sheep, timely mating, restoration of the gene pool (timely lambing of sheep), an increase in their resistance to drought, diseases and adverse weather conditions led to an improvement in the quality of lamb skins.

2. In the study of homogeneous crossing of Surkhandarya breed type suras, patterns of long-term variability, the transfer of hereditary parental colors in the context of multi-color in the mating variant "platinum x platinum" was 71,6%, "yantar x yantar" – 68,5%, "bronze x bronze "- 71,5%," anthracite x anthracite "- 92,1%. On this basis, it was revealed that homogeneous mating according to the colors of the sheep sura has led to the improvement and strengthening of the rare and valuable sura colors.

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