WAYS TO PRESERVE THE VALUABLE GENE POOL AND SELECTION AND BREEDING WORK IN THE CREATION OF GENE POOL Flocks of KARAKUL BREEDS OF SHEEP OF SURKHANDARYA SUR

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Abstract: The article shows that global climate change and natural landscape degradation have led to a sharp decline in the gene pool of domestic and livestock breeds worldwide and the complete extinction of some breeds, as well as a decline in the gene pool and productivity of karakul sheep The article also states that for the first time on a scientific and practical basis, selection and genetic methods for the preservation and restoration of the gene pool of Surkhandarya s ur k arakul sheep with unique and antique variety have been developed.

Keywords: gene pool, molecular-genetic, brand, original, morpho-biological, line, cross, pigment, gomogeneous, geterogeneous, plant type, grading.

Currently, Uzbekistan has great opportunities both for increasing the number of Karakul sheep and for increasing all types of industry products. On the territory of the republic there are (more than 20 million hectares of desert and semi-desert natural pastures); There are unique breed and breed types of Karakul sheep, characterized by high genetic productivity potential 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 intensification of the industry, have led to a threatening unification, loss of genetic diversity and the loss, first of all, of unique factory and breed types of sheep.

In Uzbekistan, much attention is paid to preserving the diversity of Karakul sheep, supplying valuable fur to world markets that meets industry requirements. In particular, the volume of Karakul production and the number of Karakul sheep increased.

Table 1

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

Coloring and coloring	Animals counted (goals)	NK-type		LK - type		Allele frequency	
		n	M±m	n	M±m	Kh	K^L
Black	104	77	148.5±2.57	27	59.5±3.72	0.872	0.128
Sur of Bukhara type	82	58	161.9±2.78	24	63.5±2.97	0.883	0.117
Sur of the Surkhandarya 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

The potassium content in the blood of 224 animals (72.9 %) was high, and in 84 (27.1 %) it was low. The frequency of the recessive allele in the selected group of sheep is K^h - 0.815 - 0.883, and the dominant allele K^L - 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 K^h frequency of the animals. If the allele frequency of the Sur sheep of the Surkhandarya breed type is counted as 100, then in black sheep this figure is 107.0, and in the Sur sheep of the Bukhara type it is 108.3. The difference is statistically significant ($P < 0.001$).

Work to create highly productive herds was carried out in stages. Together with farm specialists, when creating this type of animal, they initially accumulated breeding material, formed breeding groups, selected lambs of the desired and typical colors of the sur, heterogeneous (dissimilar) selection by color was mainly used, in order to reproduce and increase the number of sheep of the Surkhandarya sur.

The main methods of breeding Karakul sheep, taking into account colors, are homogeneous and heterogeneous mating.

At the same time, from heterogeneous mating you can get about 60% of similar lambs, 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 original colors and consolidation of valuable ram qualities of highly productive animals, from homogeneous selection by color, that is, leaving the maximum number of rams of original colors of the desired type, using strict selection.

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

For homogeneous selection and obtaining clear selection characteristics of the Surkhandarya sur, it is desirable to form separate breeding flocks of each valuable color, which will make it possible to consistently obtain lambs with original and valuable colors.

results the inheritance of colors during homogeneous mating of Sura sheep of the Surkhandarya breed type is given in the table.

table 2

Inheritance of colors in offspring during homogeneous mating, %

Type of selection	Scored (goals)	Lamb colors ,%				
		platinum	amber	Bronze	Anthracite	other
Pl. x Pl.	40	71.6	7.9	7.5	10.0	3.0
Jan. x Jan.	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

Note : Pl. - platinum ; Jan. - amber ; Br. - bronze ; An. - anthracite .

As can be seen from the table, 71.6% of platinum lambs were obtained from sheep of platinum colors and 28.4% of other colors; amber color - 68.5% and 31.5%; bronze -71.5% and 28.5% and anthracite color - 92.1% and 7.9%.

CONCLUSIONS

1. The study of the biochemical composition of the blood of sheep of the Surkhandarya breed type showed that the normal content of the potassium element

in the blood of Sur sheep, timely mating, restoration of the gene pool (timely lambing of sheep), increasing their resistance to drought, disease 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 transmission of hereditary parental colors in terms of different colors in the mating option “platinum x platinum” was 71.6%, “amber x amber” - 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 sur sheep led to the improvement and strengthening of rare and valuable sur colors.

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