



Some Features of the Manifestation of Breeding Traits in Lambs of the Karakalpak Sur Breed Type

Urimbetov Akhmet Abdirazakovich ¹, Gaziev Adkham ², Mamatov Bakhtiyor Salimovich ³

¹ Doctoral student (PhD)

² Senior Researcher (DSc)

³ (PhD) Senior Researcher, Research Institute of Karakul Breeding and Desert Ecology

Annotation: Karakalpakstan is one of the largest regions of karakul breeding in Uzbekistan and the main breeding base for breeding karakul sheep surs of the Karakalpak breed type of original colors.

In connection with the foregoing, the establishment of some boundaries for the manifestation of breeding traits in sheep of a given color is considered relevant.

The article presents the results of studies on the study of the severity of coloring and the length of curls in offspring obtained from a homogeneous and heterogeneous selection of Karakalpak sur sheep of different colors. The evaluation of the resulting offspring was carried out in accordance with the "Instructions for conducting breeding work in karakul breeding and evaluation (grading) of karakul lambs".

As a result of the research, it was found that, depending on the colors of the parents and their selection in different variants, there is a significant variation in the yield of lambs in terms of the severity of colors. A significant superiority of the homogeneous selection of sheep of "Shamchirak" coloring was established in comparison with other selection options for the output of lambs with a strong coloring ($90.0 \pm 3.0\%$). This superiority was 22.0% in relation to the second selection option, 35% to the third, and 51.0% to the fourth.

The results showed the presence of a certain dependence of the length of the curls on the color of the mated parents. At the same time, the offspring obtained from the selection of "Shamchirak x shamchirak" significantly exceeds ($P < 0.001$) in terms of the yield of long-curved lambs ($60.0 \pm 4.89\%$) the indicators of other options (25.0-31.0%). In the last three variants of selection, the offspring mainly had curls of medium length (52.0-58.0%).

Keywords: karakul sheep, lambs, coloring, coloring, breeding trait.

Introduction. The branch of karakul breeding occupies an important place in the animal husbandry of the Republic, the karakul sheep that form its basis are adapted to the use of more than 20.0 million hectares of desert pastures, characterized by harsh extreme natural conditions. The main products of karakul sheep are karakul sheep, which are highly valued in the world fur market for their color and color, as well as unique curls.

Karakalpakstan is one of the largest regions of karakul breeding in Uzbekistan and the main breeding base for breeding Karakul sheep suras of the Karakalpak breed type of original colors. Many studies (A.S. Akhmetshiev, 1989; R.U. Turganbaev, 2012; A.Kh. Khatamov, 2017; 2019) established a complex mechanism for the inheritance of the traits of these sheep, their fairly wide range of splitting.

In connection with the foregoing, the establishment of some boundaries for the manifestation of breeding traits in sheep of a given color is considered relevant.

Materials and methods. The studies were carried out on Karakul sheep of the Karakalpak breed type. Sheep of “Shamchirak” coloring and uterus of “Shamchirak, pulats, apricots – gul and kamar” colors were selected for the experiments. Their homogeneous and heterogeneous selection was carried out. The assessment of the resulting offspring was carried out according to the “Instructions for conducting breeding work in karakul breeding and evaluation (grading) of karakul lambs (S.Yu.Yusupov et al., 2015). Processing of digital material was carried out by methods of variation statistics (N.A. Plokhinsky, 1969).

Results and discussions. In the course of the research, the influence of the colors of mated parents on the manifestation of the severity of colors and the length of the curl in the offspring was studied.

The expressiveness of coloring is considered one of the main breeding indicators. A high degree of expressiveness of coloring gives the astrakhan a clear appearance of color, increases the breeding value of the animal and the commercial value of astrakhan products.

We have studied the degree of expressiveness of colors in lambs obtained from different variants of selection of animals according to colors. The results are shown in table-1.

Table -1. The severity of the color of the resulting offspring

Selection options		Received offspring, heads	Expression of color, % (X±Sx)		
♂	♀		strong	average	inadequate
Shamchirak	Shamchirak	100	90,0±3,0	-	10,0±3,0
Shamchirak	Pulats	100	68,0±4,66 ^{x)}	21,0±4,07	11,0±3,12
Shamchirak	Apricot Gul	100	65,0±4,76 ^{x)}	24,0±4,27	11,0±3,12
Shamchirak	Kamar	100	39,0±7,87 ^{x)}	32,0±4,66	29,0±4,53

X)- P<0,001

From the data of table -1 it can be seen that, depending on the colors of the parents and their selection in different variants, there is a significant variation in the yield of lambs in terms of the severity of colors. A significant superiority of the homogeneous selection of sheep of “Shamchirak” coloring was established in comparison with other selection options for the output of lambs with a strong coloring (90.0 ± 3.0%).

This superiority was 22.0% in relation to the second selection option, 35% to the third, and 51.0% to the fourth. At the same time, it was found that the fourth selection option (“Shamchirak x Kamar”) significantly increases the yield of lambs with an average (29.0±4.53%) and insufficient (32.0±4.66%) color intensity.

In the process of research, the influence of the colors of the parents on the length of the curls of the offspring was studied. At the same time, it should be noted that the strong expressiveness of coloring and the length of the curls are very valuable indicators and significantly increase the value of animals and astrakhan.

The results of the studies carried out in this direction are shown in Table 2.

Table – 2. Distribution of lambs by curl length

Selection options		Received offspring, heads	Of them, % (X±Sx)		
♂	♀		long-curl	medium-curl	short-curl
Shamchirak	Shamchirak	100	60,0±4,89	20,0±4,0	20,0±4,0
Shamchirak	Pulats	100	31,0±4,62 ^{x)}	52,0±4,39 ^{x)}	17,0±3,75
Shamchirak	Apricot Gul	100	25,0±4,93 ^{x)}	58,0±4,93 ^{x)}	17,0±3,75
Shamchirak	Kamar	100	28,0±4,48 ^{x)}	55,0±4,37 ^{x)}	17,0±3,75

X)- P<0,001

The results shown in table -2 show the presence of a certain dependence of the length of the whorls on the color of the mated parents. At the same time, the offspring obtained from the selection of "Shamchirak x shamchirak" significantly exceeds ($P < 0.001$) in the yield of long-curled lambs ($60.0 \pm 4.89\%$) the indicators of other options (25.0-31.0%). In the last three variants of selection, the offspring mainly have curls of medium length (52.0-58.0%).

Conclusion. Based on the results of the studies, it can be concluded that the "Shamchirak" sheep are a more valuable genotype in the Karakalpak sur. The sharp contrast of this color contributes to a significant improvement in the severity and lengthening of the curls, which must be taken into account in breeding work.

Bibliography

1. Akhmetshiev A.S. Selection of Karakul sheep of the Karakalpak Sura. // Alma-Ata. "Kainar". 1989. 150 p.
2. Plokhinsky N.A. Guide to biometrics for zootechnicians. Moscow. 1969. - S.256.
3. Turganbaev R. U. Karakalpak breed type of Karakul sheep of sur color. Monograph. Tashkent 2012, 164 p.
4. Khatamov A.Kh. Peculiarities of bioproductivity of Karakalpak Karakol sura sheep of different ethological types in steppe conditions. Abstract of the candidate of agricultural sciences. Samarkand. RIADE. 2019. P.38.
5. Khatamov A.Kh. Manifestation of types and forms of flowers in Karakalpak Karakol sura sheep in new breeding conditions. Journal. Poultry and breeding work. No. 3 (112) 2017. P.35-36.
6. Yusupov S and others. Guide to breeding and evaluation of lambs in animal husbandry. - Tashkent, 2015. - P.31.
7. Klichev, Z. S. (2019). Dynamics of live weight of karakul lambs of sur and black colors in the suckling period. Sheep, goats, woolen business, (3), 38-39.
8. Bobokulov, N. A., Ibragimov, Zh. Kh., & Klichev, Z. S. (2020). Actual tasks of modernization of the structure of the herd of sheep. Korakulchilik va chul ecology and ilmiy-tadqiqot institute, 214.
9. Popova, V. V., & Safarovich, K. Z. (2022). Feeding Level of Ewets in Different Physiological Conditions. *International Journal on Orange Technologies*, 4(3), 71-74.