

**QUALITY INDICATORS OF KARAKUL PELTS OF SHABDAR AND CHAKIR
COLORS FROM KARAKALPAK SUR SHEEP**

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Abstract

This article determines the main quality indicators of Karakul pelts from Karakalpak Sur sheep in Shabdar and Chakir colors, specifically their luster and silkiness across different color variations, and provides conclusions for breeding.

Keywords: Karakalpak Sur, Shabdar, Chakir, color variations, Karakul quality indicators, luster, silkiness, breeding, conclusions.

Introduction

To date, the productivity of Karakalpak Sur sheep of various colors in the Republic of Karakalpakstan has not been sufficiently studied. Therefore, during our experimental work, we aimed to determine the productivity limits of sheep belonging to the "Shabdar" and "Chakir" color variations of the Karakalpak type and to develop methods for their selective breeding.

The purpose of the research is to determine the productivity limits of Karakul sheep of the "Shabdar" and "Chakir" color variations belonging to the Karakalpak Sur breed type and their application in breeding.

Research objectives:

Determination of indicators for expression, shading, uniformity, wool length, and degree of grayness in lambs of the "Shabdar" and "Chakir" color varieties of Karakul sheep belonging to the Karakalpak sur breed type;

Determination of biological characteristics (at birth, at 5 months, and 18 months of age) and providing conclusions for breeding selection;

Determination of economic efficiency based on the pelts of "Shabdar" and "Chakir" color variety lambs from Karakul sheep of the Karakalpak sur breed type;

Research object: Purebred Karakul sheep of the "Shabdar" and "Chakir" color varieties belonging to the Sur Karakalpak breed type, lambs, Karakul pelts, and live weight indicators of animals at different ages.

Research subject: Biological characteristics and pelt quality indicators of Karakul lambs belonging to the Karakalpak breed type.

Research methods: The study utilized generally accepted zootechnical, biological, and statistical analysis methods. The accuracy and reliability of the data were analyzed using the SPSS (Statistical Package for Social Science) computer program.

Research location: Scientific research was conducted at the "Nurtilek-Karaozek" farm, specializing in Karakul sheep breeding, which belongs to the "Koybak" citizens' assembly in the Karauzyak district, located in the northern Kyzylkum region of the Republic of Karakalpakstan.

Research results. One of the main indicators determining the skin quality of Karakul gray lambs is silkiness and luster. Therefore, applying these indicators in breeding work yields good results.

The results of the research conducted in this direction are summarized in Table 1 below.

Table 1 Silkiness of the wool-fiber covering

Color variety	Number of animals	Silkiness, % ($\bar{X} \pm S_x$)		
		High	Medium	Insufficient
Shabdar	25	31.9 \pm 2.8	53.9 \pm 4.5	14.2 \pm 1.3
Chaqir	25	23.7 \pm 2.3	51.7 \pm 4.8	24.6 \pm 2.5
Average	50	27.8 \pm 2.1	52.8 \pm 4.6	19.4 \pm 1.7

From the table data, it can be seen that the wool-fiber cover is divided into high, medium, and insufficient categories according to silkiness. In our experimental work, it was observed that the silkiness indicators of skins from the Shabdar color variety were somewhat higher, with the degree of high silkiness equal to 31.9 \pm 2.8%. This indicator in the skin of lambs of the Chaqir color variety was 23.7 \pm 2.3%. At the same time, the degree of insufficient silkiness was 14.2 \pm 1.3% and 24.6 \pm 2.5%, respectively. Overall, the average indicator for both color varieties was 27.8 \pm 2.1% for medium silkiness, and 19.4 \pm 1.7% for insufficient silkiness.

The experimental data on luster obtained in our research work are reflected in the table below.

Table 2Luster of the wool-fiber covering

Color variety	n	Luster, % (X±Sx)				
		<i>Strong</i>	Medium	Weak	Glassy	Non-lustrous
Shabdar	25	17.2±1.3	54.3±4.6	13.8±1.1	7.8±0.5	3.9±0.2
Chaqir	25	15.1±1.3	51.6±4.4	17.9±1.4	10.4±0.6	5.0±0.4
Average	50	15.9±1.3	51.8±4.8	17.4±1.4	8.9±0.6	6.9±0.5

According to the data in Table 2, wool fiber luster is divided into strong, medium, weak, vitreous, and non-glossy.

In leathers with Shabdar coloration, strong luster accounted for 17.2±1.3%; medium 54.3±4.6%; weak 13.8±1.1%; vitreous 7.8±0.5% and non-glossy 3.9±0.2%, while for Chaqir coloration, these indicators were respectively 15.1±1.3%; 51.6±4.4%; 17.9±1.4%; 10.4±0.6% and 5.0±0.4%. It can be said that leathers with Shabdar coloration showed slightly higher luster indicators.

If we take the average of the luster indicators for both colorations, then this difference can be seen in Figure 2 below.

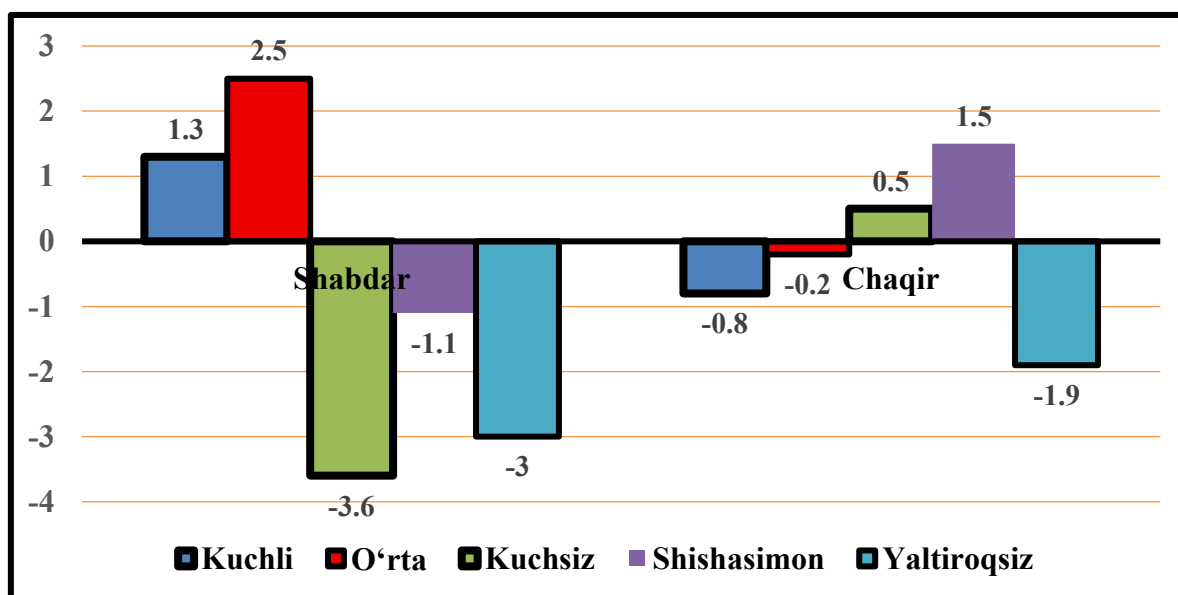


Figure 2. Distribution of the luster index in leathers of the Shabdar and Chaqir varieties

As can be seen from **Figure 2**, it was found that the luster indicators in Shabdar-colored leathers were higher than both average indicators.

Conclusion

Regarding the silkiness of the wool-fiber covering, it was observed that the silkiness indicators in pelts of the Shabdar variety were somewhat higher, with the degree of high silkiness reaching 31.9%. This indicator in the pelts of Chaqir variety lambs was 23.7%. In the Shabdar variety pelts, strong luster constituted 17.2%; medium - 54.3%; weak - 13.8%; vitreous - 7.8% and

non-glossy - 3.9%, while in the Chaqir variety, these indicators were 15.1%; 51.6%; 17.9%; 10.4±0.6% and 5.0% respectively.

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