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QUALITY INDICATORS OF THE WOOL COAT OF BLACK KARAKUL SHEEP

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Abstract: The article presents the results of a study of quality indicators such as silkiness and shine of the wool coat of black Karakul sheep in sandy desert conditions.

Key words: color, silkiness, wool, shine, selection traits, quality indicators, mass selection.

Relevance of the topic. Karakul sheep breeding is one of the main branches of animal husbandry. Most of the desert and semi-desert areas of the country are sandy deserts, and the area that is effectively used by them is karakul sheep breeding. Naturally, most Karakul sheep are raised in these areas. The most pressing issues are sheep breeding, enhancing heredity, enhancing the expression of important selection traits and, consequently, improving the quality of the Karakul product. Even if the quality of the flowers on the karakul skin is good, the breeding value of the sheep breed and karakul products is significantly reduced, or if they are not high or optimal, the quality and size of the wool cover that forms these flowers. Therefore, these selection traits are considered the main indicators and this should be given special attention in selection.

Object and methods of research. The study was conducted on black karakul sheep at the Dzhangeldi breeding farm in the Bukhara region. The offspring were assessed based on "Lamb assessment and breeding in karakul breeding" (Tashkent, 2015)."

Research results. In the course of our research, we established the influence of mass selection conditions on the quality and size of the coat. The wool cover of sheep is considered an important selection trait and is taken into account in the selection process. As noted above, this indicator has a multifaceted effect on the quality of flowers. Very strong silkiness of the coat can result in flowers that are weak, coarse and wide. The results of the research show that this indicator has some variability depending on the type of flowers of lambs. The choice and mating is greatly influenced by its appearance.

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In this regard, the selection characteristics of wool-covered sheep were studied during mass selection (Table 1).

Table 1. Silkiness of the wool cover of lambs.

Sheep flower type	Lambs, heads	silkiness, % (ẋ±Sẋ)			
		strong	normal	Not enough	rude
Jaket	117	21,4±3,79	41,9±3,73	23,9±3,94	8,8±2,62
Ribbed	73	20,5±4,72	41,1±5,76	23,3±4,95	15,1±4,19
Flat	64	32,8±5,87	40,6±6,14	17,2±4,72	9,4±3,65
Caucasian	56	7,1±3,43^{x}	37,5±6,47	34,0±6,33	21,4±5,48
Average balanced indicator	310	21,0±2,31	40,6±2,79	24,2±2,43	12,7±1,89

x – P < 0,005

From the analysis of the table data, it can be noted that all breeds of sheep have a moderate level of silkiness, which is average in terms of breeding capacity (37.5-41.9%). Significant differences can be observed in strong silkiness. In this case, this feature is higher in flat-type sheep (32.8 ± 5.87%) and lower (7.1 ± 3.43%) in the offspring of Caucasian type sheep, as well as in semi-round and ribbed sheep (5-21.4%). It was found that Caucasian type lambs had much more coarseness and insufficient silkiness than other types of lambs.

We can see that in all four types of lambs the degree of silkiness was normal or insufficient, with the strongest silkiness being 21.0±2.31 percent, normal silkiness being 40.6±2.79 percent, insufficient silkiness being 24.2±2.43 percent, and rough silkiness being 12.7±1.89 percent. This shows that there is untapped potential in sheep.

Gloss of the wool coat. This indicator is one of the important selection criteria and has a positive effect on the cost of sheep and karakul products. This is due to the silkiness of the wool coat.

The study examined the manifestation of shine in the hair coat of lambs during mass selection. The data are presented in Table 2.

Table 2. Gloss of the wool cover of lambs.

		shine, % (ẋ±Sẋ)

Sheep flower type	Lambs, heads	strong	normal	not enough	glassy	turbid
Jaket	117	12,0±3,00	55,5±4,59	20,5±3,73	7,7±2,46	4,3±1,88
Ribbed	73	12,3±3,84	46,8±5,84	20,5±4,72	13,6±4,01	6,8±2,95
Flat	64	10,2±4,92	57,4±6,18	17,2±4,72	3,1±1,47	3,1±1,47
Caucasian	56	3,4±2,42	37,7±6,48^{x}	25,0±5,79	17,8±5,11	16,1±4,91
Average balanced indicator	310	12,0±1,85	50,6±2,84	20,6±2,30	10,0±1,79	6,8±1,43

x – P < 0,05

As can be seen from the table, many years of selection and crossbreeding with the breed have ensured a certain degree of reproduction. The results showed a moderate balance of approximately 50% normal, about 12% strong, about 20% deficient, about 10% glassy and about 7% cloudy coat luster.

Length of wool fibers. The length of wool fibers is considered one of the main selection characteristics. Its importance lies in the fact that increasing the length of the hair leads to a decrease in the quality of the curls on the karakul skin.

Numerous studies have shown that this indicator is inextricably linked with the curl type of lambs.

Lambs of the ribbed and flat types have the shortest hair length, while lambs of the Caucasian type have overgrown hair, the jacket type occupies an intermediate position.

This indicator has different lengths in different topographic parts of the lambs' skin (spine, shoulders, neck, belly).

In this context, it is important to bring this diversity closer together. This allows us to improve the quality of the curls of Karakul skins.

The study of the degree of expression of this indicator in conditions of mass selection of sheep allowed us to obtain the following results. This information is presented in Table 3.

Table 3. Length of wool fiber in offspring

Type of sheep	Sheep, heads	Lambs, heads	Length of wool fiber, mm					
			On the ridge		Shoulders		On the sides	
			ẋ±Sẋ	C_v	ẋ±Sẋ	C_v	ẋ±Sẋ	C_v
Jacket	140	117	9,84±0,09	9,89	10,26±0,11^{x}	10,57	11,18±0,13^{x}	12,58

Ribbed	85	73	9,22±0,12$^{x)}$	11,12	10,04±0,16^{x}	13,61	10,93±0,17^{x}	13,29
Flat	80	64	9,34±0,12$^{x)}$	10,28	10,16±0,13^{x}	10,24	11,07±0,15^{x}	10,84
Caucasian	68	56	11,72±0,16$^{x)}$	10,22	12,24±0,18$^{x)}$	11,00	13,68±0,22^{x})	12,03
Average	373	310	9,93±0,12	10,32	10,55±0,14	11,30	11,55±0,16	12,29

x – P < 0,05; x) – P < 0,001

In various topographic parts, the hair was longer on the spine in relation to the shoulder and belly. This indicator in the offspring of sheep of the semi-round astrakhan type was +0.42 and +1.34 mm, in the ribbed type +0.82 and 1.71 mm, in the flat astrakhan type +0.82 and 1.73 mm, in the overgrown type +0.52 and +1.62 mm, the average balanced indicator was +0.63 and 1.62 mm.

No significant differences in the variability (Sv) of this trait were found.

Conclusions. It was found that certain reserves were not used in the process of mass selection of Karakul sheep, demonstrating the characteristics of silkiness and suitability that determine the quality of wool. In this case, strong and normally silky lamb hair is represented by 44.6-73.4% of the sheep flower types, 41.1-76.6% - strong and moderate shine with a moderate balance of 61.6. It was recorded at 62.6% and 83.1% with the remainder in reserve.

Literature

1. Юсупов С.Ю. Селекция и племенные рессурсы в каракульском овцеводстве. Ташкент, 2010, с. 206
2. Юсупов С.Ю. ва бошқалар “Қоракўлчиликда наслчилик ишларини юритиш ва қўзиларни баҳолаш (бонитировка қилиш) бўйича қўлланма”. Ташкент. 2015, 31 бет.
3. Юсупов С.Ю., Газиев А. “Оценка ягнят и племенное дело в каракулеводстве” Ташкент 2015. С.31.
4. Юсупов С.Ю. Конституциональная дифференциация и продуктивность каракульских овец. Ташкент, 2005.
5. Фазилов У.Т., Газиев А. Продуктивность каракульских овец. Самарканд. 2015, 30 с.
6. Rizaeva, D. T. (2021). Qualitative Indicators of Wool Cover of Black Sheep in the Conditions of A Sandy Desert. European Scholar Journal, 2(9), 15-16.

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7. SS, R. D. B. (2024). STATE OF SHEEP BREEDING AND DEVELOPMENT PROSPECTS. Multidisciplinary and Multidimensional Journal, 3(4), 23-28.
8. Ризаева, Д. (2019). Свойства волосяного покрова у каракульских ягнят разных смушковых типов. Овцы, козы, шерстяное дело, (4), 33-34.
9. Сатторов, С. Б., Мамаризаев, Н. А., Тухтаев, О.Б., Ризаева, Д. Т., & Махмудов, М. Х. (2021). Результаты использования баранов-производителей афганской популяции в Узбекистане.
10. Ризаева, Д. Т., & Бахронов, О. Х. (2021). Качественные показатели шерстного покрова овец черной окраски в условиях песчаной пустыни.