

Effect of Length and Density on Product Quality in Karakol Sheep Generations

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Abstract: The article describes the results of research on the strength and length of wool fibers in the offspring of astrakhan sheep, the strength, length, location of the astrakhan flowers, the relationship between the quality and size of wool and their role in the production of quality astrakhan skins.

Key words: Karakul lambs, wool fiber length, very dense, dense, insufficient, sparse, deer part, shoulder part.

Relevance. The length of wool fibers is one of the most important characteristics in the evaluation of karakul lambs in terms of their pedigree, karakul skins in terms of lamb skin and brand characteristics.

This indicator plays an important role in the formation of flowers and variety, which is the main feature of the breed. The shortness of the wool fibers often leads to the formation of medium-width road flowers, ribbed and flat pencil flowers, the optimal length to semicircular pencil flowers, and the long to large, low-value flowers. This affects the quality of the astrakhan leather product.

A number of scientists have conducted research in the field of studying the length and density of wool fibers.

In particular, [1] has conducted research on the degree of correlation of wool-fiber length of newborn lambs, which is an important selection trait, with other traits.

It has been observed in studies that the length of wool fibers has a sufficient hereditary coefficient (0.56) [1].

In Sur Karakul sheep [2], the parent flower species had a significant effect on the wool length of the offspring, while the shortest wool-fiber length of the offspring was observed in lambs from the ribbed parents (9.18 ± 0.11 mm), flat and half. it was found that in the offspring of circular pen-type parents, this figure was 9.24 ± 0.12 and 10.34 ± 0.13 millimeters, respectively.

Research by these authors [2] has shown that parental flower types have a significant effect on offspring flower types, color and variety, and wool fiber quality indicators to some extent.

[3] studies have shown that it is possible to increase the quality of astrakhan products by 12.0-15.0% through targeted selection of astrakhan sheep in terms of silk fiber content, gloss, degree of pigmentation and length.

Research source and method. The research was carried out on purebred red karakul sheep of "Kyzylkum" plant type, bred in "Sakhobaota karakul nasl" LLC, Nurabad district, Samarkand region.

In order to carry out the research, groups of 350 heads of red sheep belonging to the red sand plant type were formed.

Determination of length and density levels of wool fibers of the offspring obtained from sheep in the experiments was carried out on the basis of individual assessment based on the requirements of [4].

Research results. Most studies have found that wool-fiber lengths vary in size depending on the color of the lambs. This figure extends from black to light variations of color and is characterized by the longest indicator in white.

In view of the above, during the study, the length of wool and fiber in the offspring of black sheep in the experimental sur and control group was compared.

Table 1 The length of the wool cover in generations

Groups of sheep	The resulting generations, chief	Wool fiber length, mm			
		in the field		on the neck	
		$\bar{X} \pm S_{\bar{x}}$	C_v	$\bar{X} \pm S_{\bar{x}}$	C_v
Experience (sur)	350	$10,26 \pm 0,07^x$	12,77	$11,87 \pm 0,10^x$	154,76
Control (black)	298	$10,07 \pm 0,06$	10,29	$11,42 \pm 0,09$	13,60

$x-P < 0,001$; $x-P < 0,05$;

As can be seen from the table data, sur lambs obtained from experimental sur sheep, such as black lambs, are also characterized by an optimal length of wool fibers. In the right part of this indicator was found to be 10.07 ± 0.06 mm in black lambs and 10.26 ± 0.7 mm in red lambs ($R < 0.05$). In the shoulder, the wool fibers were slightly elongated, 11.87

± 0.10 and 11.42 ± 0.09 mm, respectively ($R < 0.001$). The results obtained are consistent with the results of most studies, and the wool-fiber length indicators of sur and black lambs create conditions for the formation of valuable flowers in the skin of lambs.

The density of the wool-fiber cover is also a very important indicator, with which the strength, length, location of the astrakhan flowers, the quality and dimensional characteristics of the wool-fiber cover are inextricably linked. The denser the wool-fiber coating on the skin of a lamb, the greater the degree of manifestation of the above-mentioned symptoms is significantly optimized and enhanced.

The results of research in this area are summarized in Figure 1.

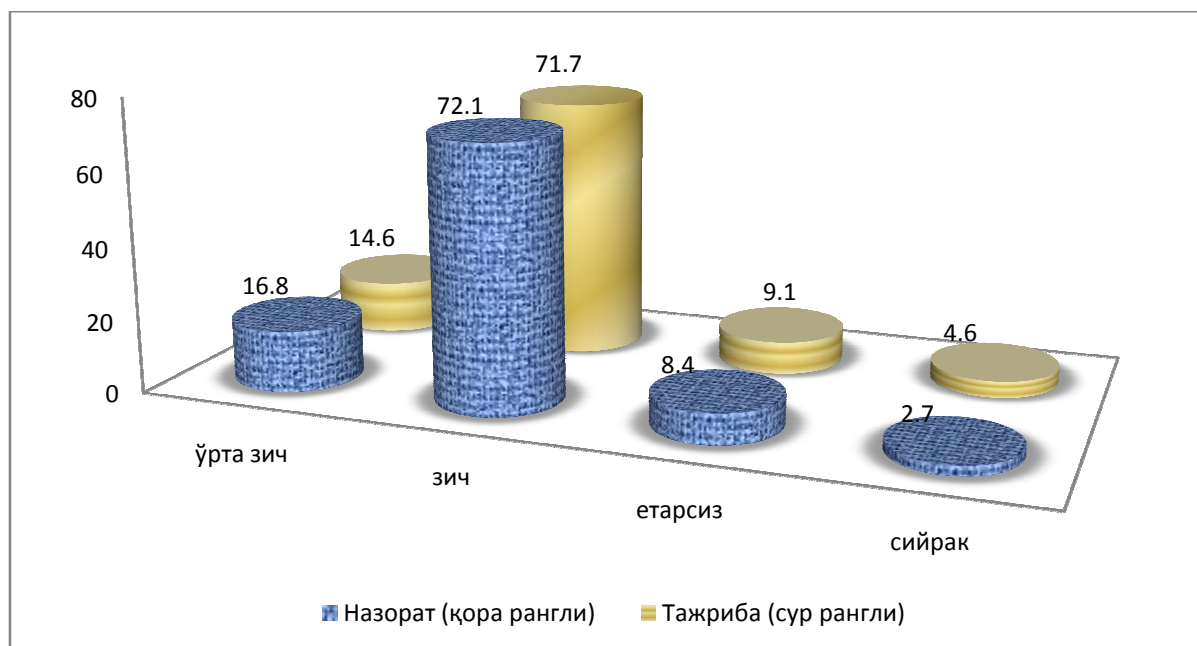


Figure 1. Density of wool-fiber coating in generations

From the data obtained on the density index of wool-fiber coating in the skin of lambs (Fig. 1), it can be seen that there are no statistically reliable differences between groups in the manifestation of this indicator. It should be noted that, although there are no statistical differences, black lambs tend to show a higher rate of this indicator, ie in this case in favor of black lambs 2.2% on the extreme density of wool fibers, 0.7% on the sufficient density, 1% on the sparse density. , A 9 percent advantage is observed.

Conclusions. The short and optimal length of the wool fibers improves the level of expression of the variety. This increases the commercial value of the pedigree, astrakhan skins of sheep. The observed superiority in wool fiber density is consistent with the findings of most studies, which conclude that the wool fiber density also decreases as the color gradually fades.

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