



Studying the Expressiveness of Color in Sur Lamb of the Karakalpak Breed Type

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Annotation: Karakalpakstan is one of the large Karakul breeding regions of Uzbekistan and the main breeding base for breeding Karakul sheep of the Karakalpak breed type of original colors. In connection with the above, establishing some boundaries for the manifestation of selection traits in sheep of a given color is considered relevant. The article presents the results of studies on the severity of colors and length of curls in offspring obtained from a homogeneous and heterogeneous selection of Karakalpak sur sheep of different colors. The assessment 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 studies, it was established 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 homogeneous selection of sheep of the “Candle-flame” coloring was established compared to other selection options for the yield of lambs with a strong color expression (90.0±3.0%). This superiority compared to the second selection option was 22.0%, the third -35%, and the fourth - 51.0%. The results showed the presence of a certain dependence of the length of the curls on the colors of the mated parents. At the same time, the offspring obtained from the selection “Candle-flame x Candle-flame” significantly exceeds ($P<0.001$) in terms of the yield of long-curl lambs (60.0±4.89%) the indicators of other options (25.0-31.0%). In the last three selection options, the offspring mainly had curls of average length (52.0-58.0%).

Keywords: Karakul sheep, lambs, coloring, coloring, selection trait.

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

Karakalpakstan is one of the large Karakul breeding regions of Uzbekistan and the main breeding base for breeding Karakul sheep of the Karakalpak breed type with original colors. Many studies (A.S.Akhmetshiev, 1989; R.U. Turganbaev, 2012; A.Kh. Khatamov, 2019; A.A.Urimbetov, 2020) have established a complex mechanism of inheritance of the traits of these sheep and a fairly wide range of segregation.[1.3.4.5.6.]

In connection with the above, establishing some boundaries for the manifestation of selection traits in sheep of a given color are considered relevant.

Materials and methods. The studies were carried out on Karakul sheep of the Karakalpak breed type. For the experiments, rams of the “Candle-flame” color and ewes of the “Candle-flame, stell-

blue, apricot – flower and sunset” colors were selected. Their homogeneous and heterogeneous selection was carried out. The assessment 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 (S.Yu.Yusupov et al., 2015). Processing of digital material was carried out using the methods of variation statistics [2].

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

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

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 homogeneous selection of sheep of the “Candle-flame” coloring compared to other selection options for the yield of lambs with a strong expression of color has been established ($90.0 \pm 3.0\%$)

This superiority compared to the second selection option was 22.0%, the third - 35%, and the fourth - 51.0%. It was found that the fourth selection option (candle-flame x sunset) significantly increases the yield of lambs with average ($29.0 \pm 4.53\%$) and insufficient ($32.0 \pm 4.66\%$) color expression.

In the course of research, the influence of the colors of parents on the length of curls of the offspring was studied. It should be noted that the strong expression of color and the length of the curls are very valuable indicators and significantly increase the value of animals and karakul fur.

At the same time, the offspring obtained from the selection “Candle-flame x Candle-flame” significantly exceeds ($P < 0.001$) in terms of the yield of long-curl lambs ($60.0 \pm 4.89\%$) the indicators of other options (25.0-31.0%). In the last three selection options, the offspring mainly have curls of average length (52.0-58.0%).

Conclusion. Based on the results of the research, we can conclude that sheep of the “Candle-flame” color are a more valuable genotype in the Karakalpak sur. The sharp contrast of this color contributes to a significant improvement in the expression and lengthening of curls, which must be taken into account in breeding work.

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