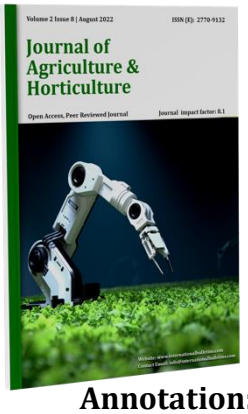

APPEARANCE OF SOME COLOR INDICATORS IN KARAKALPAK SUR KARAKUL SHEEP

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Annotation: The article describes the results of the study of the level of manifestation of diversity and color uniformity in the offspring obtained from the mating of grey-colored Karakul sheep belonging to the Karakalpak breed type in different variations in terms of color.

Key words: Karakul sheep, generation, mating, grey color, diversity, color uniformity.

Аннотация: В статье представлены результаты исследования уровня проявления цветового разнообразия и однородности окраса у потомства сероокрашенных каракульских овец, относящихся к каракалпакскому типу породы, при различных вариантах спаривания.

Ключевые слова: каракульские овцы, потомство, спаривание, серый окрас, разнообразие, однородность окраса.

The breed structure of Karakul sheep is very rich, it includes different colors, diversity, wool types. If we take only the sur color, it is divided into Bukhara, Karakalpak, and Surkhandarya breeds. Each breed type has several color variations, which determine the value of Karakul skins, which are considered the main product of Karakul sheep.

In the section of colors and diversity, the study of the transmission of color variations found in sheep belonging to the black breed type of sur color to the generations allows for the correct application of mating options in obtaining the appropriate color variations.

Based on these considerations, studies were conducted to study the levels of expression of diversity and color uniformity indicators in offspring obtained from mating with different variants of colors.

Methods of the research. The researches were carried out in Karakul sheep belonging to the sur colored Karakalpak breed type bred at the Karakul breeding scientific-experimental station in the Karakul breeding farm “Mulk” of Takhtakupir district in the Republic of Karakalpakstan.

Sheep and rams in the experiment were mated in different variants. The diversity and uniformity of lambs obtained from different mating options were studied based on the “Guidelines for conducting breeding work and evaluating (boniting) lambs in karakul sheep breeding” (Yusupov S.Yu. et al., 2015).

The obtained data were processed by the methods of variational statistics (Plokhinskii N.A., 1969) and the average arithmetic quantity ($\bar{X}$) and its error ($S\bar{x}$) were determined.

Results of the research. Table 1 presents the results of the study on the distribution of Karakul sheep belonging to the Karakalpak breed type to diversity in the generations obtained from different matings.

Table 1

Color diversity

Mating variant		Received generation, n	From this, % (X±Sx)		
♂	♀		steel-blue	candle flame	apricot flower
candle-flame	steel-blue	43	69,8±7,0	23,2±6,43	7,0±3,88
steel-blue	steel-blue	77	62,3±5,52	26,0±4,98	11,7±3,66

The table data shows that in terms of color variation, 69.8% of the offspring from the "candle flame x steel-blue" mating option exhibited "steel-blue" color variation. The fact that the weight of offspring of this variety is 62.3 percent in the variant of homogenous mating by color indicates that the "steel-blue" variety is genetically dominant. In all mating variants, a low level of weight of the "apricot flower" offspring was observed, and the offspring of the "candle flame" variety took an intermediate place in this regard.

Color uniformity is considered an important indicator in colored karakul breeding, especially in skins obtained from sur sheep, and the uniform distribution of color over the surface of the skin increases its market value several times. During the research, the results of the research on the level of manifestation of the color uniformity in the offspring obtained from the mating of sur Karakul sheep of different colors in different options are presented in Table 2.

Table 2

Color uniformity

Mating variant		Received generation, n	From this, % (X±Sx)		
♂	♀		smooth	insufficient	uneven
candle flame	apricot flower	30	53,3±9,10	26,7±8,0	20,0±7,3
steel blue	apricot flower	30	60,0±8,94	26,7±8,0	13,3±6,19
apricot flower	apricot flower	40	87,0±5,22	10,0±4,74	2,5±2,4

Table data revealed that different mating options for color varieties have a certain influence on the expression of the offspring color uniformity. In 53.3% of the offspring obtained from the "candle flame x apricot flower" mating option, even distribution of color along the skin surface was observed, while this indicator was 60.0 and 87.0% in the "steel-blue x apricot flower" and "apricot flower x apricot flower" variants. In the case of homogenous mating in terms of color diversity, the weight of smooth offspring with color expression increased and the number of uneven offspring decreased.

Analyses show that the color indicators in Karakul lambs vary based on the color diversity of their parents, and the color diversity and color uniformity manifest differently in their offspring.

In general, taking into account the levels of expression of color indicators in the offspring obtained from the mating of Karakul sheep according to colors is important for increasing the breeding value of Karakul lambs and the quality of Karakul skins.

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