KARAKUL SHEEP OF GRAY COLOR (SHIROZI), CHARACTERISTICS OF KARAKUL SHEEP AND THE PROBLEM OF DISTRIBUTION OF THEIR ASSORTMENT.

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Annotation: In this article, the research of scientists on the origin of Karakul sheep is presented and the bioproductive characteristics of animals bred in the foothill semi-desert of the Surkhandarya region is studied. It is shown that the Karakul sheep as a unique breed is not only the material wealth of the country, but also its cultural and spiritual wealth.
Key words: Karakul sheep, the origin of the Karakul sheep, the zone of the foothill semi-desert of the Surkhandarya region, homo and heterogeneous selection by color, ♂ gray rams of the Afghan population ♀ gray, and black color of the South Uzbekistan factory type.

Introduction. Karakul breeding is counted as a branch of desert animal husbandry and it plays an important role in the economy of the Central Asian countries - Uzbekistan, Kazakhstan, Turkmenistan and Tajikistan. Only in Uzbekistan, 40% of its territory, about 20.0 million hectares, belongs to the desert landscape zone, where the welfare of the indigenous population is mainly associated with astrakhan breeding. Among the breeds of sheep created by mankind, a special place is occupied by the karakul breed of sheep, which gives amazing beauty, varied in curls and colors karakul skins, referred to in the world as "Bukhara - karakul", Bogolyubsky S.N. [3] notes that Uzbekistan is the birthplace of this unique breed. An Arab traveler who visited Turkestan back in the 10th century, Ibn Haukal, wrote about the existence of a prototype of such a breed. The first use of the word karakul is found in the book of Abu Bakr Muhammad ibn Jafar An-Narshahiy "Buxoro tarixi" (History of Bukhara) written in 943-944, which says that fur coats made from sheepskins and astrakhan skins were sold in the bazaars near Bukhara. The Karakul sheep appeared in the region of the Khiva-Bukhara-Chardjou triangle, along the Amu Darya of the Great Silk Road.

Materials and methods. The material for the research was gray Karakul sheep (Sherozi) of various colors and genotypes. Qualitative and quantitative signs of astrakhan lambs were assessed according to the generally accepted instructions for grading Karakul lambs. (4).

Results and discussion. It is generally accepted that Asia, including Central Asia and Iran, is one of the main centers of origin and domestication of animals where sheep were one of the first domesticated animals. The formation of any breed, especially the ancient ones, to which the Karakul belongs, is influenced by the culture, way of life, and customs of the peoples living in this territory. Frequent migrations, mixing of peoples that took place in different historical periods also led to the movement of animals accustomed by man to new areas, as a result of which there was a displacement with other native animals. The Karakul sheep, as a product of desert animal husbandry, was created precisely in such a complex cycle of history and

absorbed them. The study and generalization of materials on the origin of Karakul sheep gives us reason to believe that this breed, being one of the oldest, at the same time, how it became a sheep in the modern sense in the last 300-400 years, which falls on the period of rapid development of trade between the West and the East, Turkestan khanates with Russia, and through it with the West, since only the emergence of a wide demand for such a product could stimulate sheep breeders to produce high-quality astrakhan fur. Aripov U. (1).

Currently, you can count up to thirty color variations (colors, colors) that clearly differ from each other morphologically and genetically. Gigineishvili N.S. (3).

Along with this, breeders are faced with the constant task of enriching the assortment of astrakhan with new valuable colors and colors in accordance with the requirements of fashion.

New colors should be considered within the individual colors of astrakhan. Among the skins of gray color, the most widely known and most valuable color is blue. It is formed by a certain ratio of white and black hair, such as 60:40, but white hair is 12-15 % longer than black. In addition, the blueness of the color is created by a combination of intense black and pure white hair. This coloration is inherited most consistently.

With the same quantitative ratio as that of the blue color, but with an equal length of white and black hair, a dark steel color is formed, which is not inferior to the blue in terms of the relief of the pattern, even in the presence of semicircular rolls.

In silver colors, the content of white hair reaches 75 percent. It is lighter than the above-mentioned and has a strong luster and is especially good for flat and astrakhan fur types. It is most effective to use silver-coloured rams on black ewes, which prevents the general darkening of gray lambs, usually observed as a result of heterogeneous selection.

The pearl color is aesthetically equivalent to blue and even slightly exceeds it in the content of white hair (on average 65%) has a slightly wider variability than blue, the main difference from blue and silver colors is a significant excess of white hair and that, with sufficient elasticity, does not interfere the formation of a complete crimp of semicircular rolls. This feature gives the hairline two fury colors; the lower tier has a blue stem and the upper tier is pure white.

Skins of dark gray colors are not in constant demand. Only in certain periods, due to a change in fashion, they rise in price, often exceeding the price level for blue skins.

The most promising of the dark gray colors is considered to be gray with a relatively good uniformity of color throughout the skin. The black-gray coloring is distinguished by a large unevenness of color, it is obtained by a heterogeneous selection of gray and black sheep, in the order of splitting. Special measures to increase its yield are not applied, and from a zootechnical point of view, it is considered as a marriage resulting from the incomplete development of a trait.

The least valuable are the milky and light steel colors of light gray astrakhan.

Breeders in the breeding farm of “Bobotog Suri” set the task of increasing the difference in the length of white and black hair in blue lambs. And when the relative elongation of the white hair reached 40-50 percent, a different pearl color was obtained, not inferior, but often superior in beauty to the blue color. It was believed that dense long rolls could be formed only with the same length of white and black hair. But, as practice has shown, by increasing the elasticity of white hair, you can get a pearl astrakhan with a large elongation of white hair and with long dense semicircular rolls. The heritability of this new coloration is highly dependent

on the nutritional conditions of the fetus: in the years of abundant feeding of the queens in the spring, the yield of pearl-colored lambs increases.

Between the blue and gray colors in the selection, dark blue begins to be distinguished, formed by an equal ratio of white and black hair. This coloring is well inherited.

In 2020, 50 gray-colored rams from which 20 were brought to the Republic of Uzbekistan from Afghanistan to "Bobotog Suri", Kumkurgan district, Surkhandarya region, which were used for mating with gray and black sheep with homogenous and heterogeneous color details.

The results of the research are presented in Tables 1 and 2. The distribution of gray and black lambs to fur type is presented in Table 1.

The materials presented in Table 1 show that the distribution of experimental lambs in heterogeneous selection by color is not significant.

The analysis of materials shows that gray-colored lambs obtained from homogeneous and heterogeneous selection by coloration amounted to jacket type 39.5 and 42.9%, ribbed type 21.9-20.0%, flat type 26.3-30 .0%; respectively, for black animals 60.0 and 57.1; 16.0-16.9; 10.0-12.6.

The distribution of experimental gray-colored lambs by shades and colors with different selection options when using sheep of Afghan origin is presented in table 2.

Distribution of lambs on Karakul sheep in the offspring of animals from homo and heterogeneous selection by color

Table 1

Animal selection type	offspring coloring		Karakul type and coloring of lambs (M±m)							
			Gray				Black			
	Gray	Black	Jacket	Ribbed	Flat	Caucasian	Jacket	Ribbed	Flat	Caucasian
Homogeneous selection ♂ gray Afghan origin X ♀ gray South Uzbekistan factory type	114	40	39,5±4,5	21,9±3,87	26,3±4,12	12,3±3,08	60,0±7,7	16,0±4,7	10,0±4,7	20,0±6,32
Heterogeneous selection ♂Series of Afghan origin X ♀black South-Uzbekistan factory type	70	71	42,9±5,4	20,0±4,78	30,0±5,4	7,1±3,0	57,1±5,8	16,9±4,4	12,6±3,94	13,4±4,04

table 2
Distribution of gray lambs by color and pattern

Mating type	Lambs and colour in % (M±m)			
	Normal-gray coloured blue silver, pearr	Light-gray coloured milky	Dark gray coloured	Total estimated lambs, (heads)
Homogeneous ♂ Gray 4446 Afghan origin X ♀ gray southern Uzbekistan factory type	60,0	22,5	17,5	96
Heterogeneous ♂series of Afghan origin 4440 X♀ black South Uzbekistan factory type	61,4	20,4	18,2	59
Total	63,6	18,7	17,7	155

The data given in Table 2 shows that gray-colored rams of the Afghan selection produced blue, silver-pearl lambs of 63.6%, which makes it possible to use in breeding to improve the quality of karakul, it has also been established by studies that the rams of the Afghan population both with homogeneous and heterogeneous selection options produced 17.7% gray and 18.7% milky.

Conclusion.

1. Karakul sheep as a unique breed is not only the material wealth of the country, but also its cultural and spiritual wealth.
2. It has been established that karakul sheep of gray (shirozi) coloration bred in the foothill zone of the semi-desert of the south of Uzbekistan (Surkhandarya region) produce lambs of different colors.
3. It was found that the use of gray sheep of Afghan origin in homo and heterogeneous selection with sheep of both gray and black colors produced blue, silver and pearl lambs up to 63.7%, which makes it possible to use them in breeding to improve the quality of the smushka.

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