European Journal of Innovation in Nonformal Education (EJINE)
Volume 3 | Issue 5 | May - 2023 ISSN: 2795-8612

Correlation of Breeding Traits of Karakul Skins of Silver Sur Color

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A B S T R A C T
The article describes the theoretical foundations and effective methods of breeding and breeding Karakul sheep of the Bukhara breed type, taking into account constitutional types in the conditions of the Kyzylkum desert, contributing to the improvement of existing ones, the creation of new factory types and highly productive lines capable of providing a large output of export-oriented products and well adapted to the harsh conditions of year-round grazing animals, with a pronounced severity and sufficient evenness of the skin.

A R T I C L E I N F O
Article history:
Received 03 Mar 2023
Received in revised form
05 Apr 2023
Accepted 16 May 2023

Keywords: karakul sheep, karakul skin, heritability (he), constitutional type, correlation coefficient, selection effect (R), selection differential(S).

Introduction. Among karakul skins, sura skins are of particular value and demand, characterized by different pigmentation along the length of the hairs - usually dark at the base and light at their tip, which is why sura karakul acquires a beautiful multicolor. This determines its high cost and consumer demand.

Sur Karakul sheep of the Bukhara breed type are the most common and are considered one of the high-quality breed groups, and Karakul skins of this color are in great demand in the domestic and foreign markets.From this point of view, the implementation of comprehensive research in order to develop more effective breeding methods, based on the establishment of patterns of inheritance and correlation of individual productive and biological traits, more efficient use of the potential of these animals, aimed at improving the quality and expanding the range of produced astrakhan, is an urgent problem.

Material and research methods. The experimental part of the work was carried out in the shirkat karakul breeding plant named after. "Abay" of the Kenimekh fog of the Navoi region. purebred karakul sheep of sur color and lambs of different ages.

For the experimental part of the study, 9.7 thousand animals were used for 3 years. Of these, in different years, 1806 queens and 12 improver rams were included in the repeated selection and selection according to the constitution, the effectiveness of linear breeding was considered on 3012 queens and 16 rams - producers, 2200 queens and 1900 lambs, the inheritance of the size of lambs and their relationship with productivity was studied on three thousand animals.

In the course of the study, 2900 lambs were probated, more than 1100 astrakhan skins were sorted,

fattening properties were evaluated during stationary fattening of 30 sheep.

The methodology for performing the work provided for the study of the constitutional differentiation of animals at birth, in the process of growth and in adulthood, the effectiveness of selection according to the constitution and size of animals, the creation of lines and the effectiveness of breeding along lines.

The digital material of the experimental part of the study was processed by the methods of variation statistics (according to N. P. Plokhinsky, 1969).

Research results.

An important indicator in improving the efficiency of selection and breeding work is the genetic parameter-correlation. In the scientific literature, there is an opinion that "the relative stability of organic forms in its deepest foundations rests not on the stability of the genotype, but on the complexity of correlation systems" (I.I. Shmalgauzen, 1940).

Therefore, depending on the genotypes of animals, the direction of selection, the selection of pairs in animals of different herds, groups, types, different correlation indicators are observed between the same signs.

Accounting for correlations in astrakhan breeding is relevant in that a lot (about 30) quantitative and qualitative traits are taken into account when evaluating lambs. It is known that the more traits are taken into account in selection, the lower the selection efficiency, and the reduction of these traits for effective selection is possible only by studying the relationships.

The huge amount of material obtained shows the presence of certain correlations between the important breeding traits of mothers and their offspring.

Thus, the curlic (smushkovy) type of mothers, depending on the type of constitution, affects the manifestation of the curlic type in the offspring in the range of 0.27-0.44; curl length 0.31-0.48; hair length -0.41-0.51; curl density -0.32-0.53; the width of the curl -0.3-0.62; the pattern of the location of the curls - 0.35-0.47; the severity of the color of the sur -0.34-0.39 and the uniformity of the color of the sur - 0.3-0.45 fractions of a unit.

The curl length has a stronger correlation coefficient with the density ($r=0.53$, $P<0.001$), the pattern of arranged curls ($r=0.55-0.63$, $P<0.001$).

The presence of sufficiently high correlation coefficients of hair length with curl type (0.44-0.51), density and pattern of curls and curl type indicates the success of selection for this trait to improve the named correlated traits.

Such important traits of curls as the density, width and arrangement pattern, judging by the established correlation coefficients, can act as indicators for the improvement of other important breeding traits, such as the length of the curl and hair, the severity and evenness of the color of the suras.

It should be noted that in most cases it can be observed that sheep of a strong constitutional type are more consolidated in terms of important breeding traits and they have a stronger influence on the formation and manifestation of traits in offspring than sheep of a delicate and coarse type of constitution.

Selection effect.

In the course of research on the manifestation of important breeding traits in lambs obtained from queens of different types of constitution, indicators of their heritability, determination of breeding differentials (shift in one direction or another in the manifestation of traits), we analyzed the level of the effect of breeding sheep of a strong type of constitution in relation to animals of gentle and rough types. The data obtained are summarized in Table 3.

Table 1. Selection effect (R) of strong constitution sheep

№	Sign	Attitude	Selective Differential (S)	Heritability feature (h2)	Selection effect(R)
1	Curl type	strong-tender strong-rough	12,42 14,77	0,49 0,49	6,08 7,24
2	Curl length	strong-tender strong-rough	13,0 16,0	0,57 0,57	7,41 9,12
3	Hair length	strong-tender strong-rough	0,03 2,27	0,43 0,43	0,013 0,97
4	Curl Density	strong-tender strong-rough	5,0 8,9	0,65 0,65	3,25 5,79
5	Curl Width	strong-tender strong-rough	9,26 7,5	0,53 0,53	4,9 3,98
6	Curl pattern	strong-tender strong-rough	4,1 11,0	0,62 0,62	2,54 6,82
7	Hair silkiness	strong-tender strong-rough	1,6 2,6	0,58 0,58	0,93 1,51
8	Hair shine	strong-tender strong-rough	14,8 31,7	0,45 0,45	6,66 14,27
9	Expression of color	strong-tender strong-rough	3,7 10,5	0,53 0,53	1,96 5,57
10	Evenness of color	strong-tender strong-rough	5,6 11,0	0,49 0,49	2,74 5,39
11	Colors	strong-tender strong-rough	3,9 6,7	0,41 0,41	1,60 2,75
12	The degree of lightening of the tip of the hair	strong-tender strong-rough	2,2 4,5	0,49 0,49	1,08 2,2

The analysis of the received material shows sufficient superiority of sheep of strong type. They outperformed the soft and coarse type animals by 12.42 and 14.77 percent, respectively, and the selection effect is 6.08 and 7.24 percent.

These indicators (R) between the compared groups are -7.41 and 9.12 (mm) for curl length, 0.013 and 0.97 mm for hair length, curl density -3.25 and 5.79%, curl width -4, 9 and 3.98%, silkiness of the hair - 0.93 and 1.51%, shine of the hairline - 6.66 and 14.27%, color intensity sur-1.96 and 5.57%, evenness of color sur-2 .74 and 5.39%, the development of valuable colors -1.60 and 2.75% and the optimal lightening of the ends of the hair -1.08 and 2.2%, which is the basis for the gradual genetic improvement of sheep populations.

Conclusion. Summarizing the results of studies conducted in the direction of studying the genetic characteristics of Karakul sheep of different constitutional types, we can state that they have significant differences in the strength of the transfer of traits to offspring, the relationship of breeding indicators. At the same time, sheep of a strong type of constitution are more stable and hereditarily consolidated, which should be taken into account in breeding work.

The type of constitution in sura sheep of the Karakul breed is closely related to the economically useful traits of animals, and ignoring it in the breeding process leads to the degradation of the breed. The selection of Karakul sheep with a strong type of constitution contributes not only to an increase in the viability of animals, but also leads to an increase in productive qualities. To achieve this goal, it is necessary to conduct a careful selection and selection according to the types of constitution, in combination with asmoshka traits, and to use constitutionally strong sires more efficiently.

Based on the foregoing, it can be stated that the constitutional types of adult Karakul sheep established in the practice of karakul breeding differ both in morphological and physiological characteristics and show different productivity. The constitutional differences of Karakul sheep are hereditarily determined, this is the result of the individual development of animals and therefore necessitates the selection of Karakul

sheep according to constitution. Selection according to the constitution should not exclude selection according to the quality of astrakhan fur, just as selection according to the quality of astrakhan fur should not exclude selection according to the constitution.

Selection and selection only for the quality of astrakhan not only does not ensure the improvement of the breed, but also leads to such undesirable phenomena as the effeminacy of the constitution, to the grinding of animals in the herd, the manifestation of conformation and constitutional shortcomings and, in general, to a decrease in productivity. Only an integrated approach in the direction of selection can ensure further improvement of the Karakul breed of sheep.

The results of the conducted studies and observations allow us to conclude that a systematic and rational production of astrakhan products is possible only under the condition of normal reproduction of the herd, the presence of developed and strong animals well adapted to the conditions of their breeding environment.

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