

GENETIC ANALYSIS AND HEREDITARY TRANSMISSION OF COLOR AT KARAKUL DE BOTOSANI SHEEP

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Abstract

The Botosani Karakul breed was created for the skin production. In this case, the improvement program aims at specific objectives for this production, and the color diversification is perhaps the most important objective of genetic improvement. In order to support the farmers in this research, important aspects associated with the improvement activity were followed. According to this conception, the research objectives referred to the genetic analysis and establishing the interval between generations, as well as the genetic transmission of colors takes place by crossing different parents as a variety of color. In order to obtain real data, the way colors are transmitted was monitored for eight successive generations of lambs resulting from the direct crossing of black individuals selected for this purpose. The analysis of the final data indicates that out of 3.403 descendants, 98.15% had black color at birth, with variations per generation from a minimum of 97.46% to a maximum of 98.78%. Following the analysis of the color transmission in the Botosani Karakul breed, it was found that the proportion of lambs that had a different color was 1.85%, of which the unwanted types represented by marks, was only 0.30%. There were lambs that had some differently pigmented areas on the body which was possible due to the activation of genes from other locus, being determined by the R0-4 and r0-4 polyallelic series, and the rr genotype is responsible for their absence. The appearance of white spots on the chest and head is due to the fact that the genotype of Botosani Karakul breed, just like the Asian Karakul, contains the Q gene while the other sheep breeds have the qq genotype.

Key words: pelts, color heredity, Botosani Karakul Seep, genetic improvement