



## WOOL PRODUCTIVITY OF LOCAL GOATS OF KARAKALPAKIA

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ABSTRACT	KEYWORDS
The article presents the results of a study of haircuts and the quality of wool of local goats in Karakalpakstan.	Clipping, wool length, length, gender, fiber types, age.

### Introduction

The wool productivity of goats depends on a number of factors, among which the most significant are the breed, direction of productivity, gender, age, physiological state (pregnancy, lactation) of animals, conditions of their feeding and maintenance, etc. [1,2,3].

Food and climate have a significant impact on the wool productivity of animals, the structure and quality of hair. The amount of undercoat (down fibers) formed by the body depends on the prevailing air temperature; at low temperatures, more is formed. The elasticity of hair changes depending on humidity, etc. More abundant and succulent pastures, as well as a humid climate, favor the development of wool productivity in animals [1].

Based on the above, we were given the task: to study the wool productivity of local goats in Karakalpakstan. Experimental studies were carried out in the conditions of the farm "Bakhrom Shabandoz" in the Karauzyak region on a year-round pasture.

The dependence of the wool productivity of animals on their belonging to different breeds and constitutional types has been noted [2].

The wool of Uzbekistan goats is heterogeneous, consisting of fine, delicate fluff and coarse, shiny hair. The down, which grows during one autumn and winter, sheds in the spring. Hair, unlike down, when uncut, sheds slowly, and in some animals continues to grow, sometimes for several years, reaching a great length. Until recently, in most regions of Uzbekistan, fluff from goats was not combed. In the spring it was cut along with the hair, and then separated by hand. Aboriginal goats produce, when carded, an average of 100-150 g of fluff, rarely up to 200 g, with a length of 5-7 cm and a fineness of 14-16 microns. The length of the spine in local goats is 12-15 cm. The fineness is from 60 to 100 microns and more. The hair has a slight scaliness, due to which, unlike sheep's wool, it hardly mats. Goats are sheared once a year in May. The average clip for Uzbek goats is 430-490 g, for male goats - 530 g [3].

The study of the wool productivity of goats was carried out during the shearing period (the month of May) by individually weighing the sheared wool using a spring scale. The natural length of the coat was measured in the area of the shoulder blade, flank and thigh using a metal ruler. To study the ratio of individual types of fibers in wool and their fineness, wool samples were clipped from the barrel area.

Table 1 Wool productivity

Gender of animals	Age (year)	n (Goal)	Wool clipped, g	Length of braids, cm		
				On the shoulder blade	On a barrel	On the thigh
Goats	1	25	627±24,6	9,5±0,79	3,7±0,59	12,4±0,49
	3-4	25	816±28,7	10,4±0,64	11,6±0,64	13,2±0,52
	6-7	25	708±20,4	10,9±0,59	11,0±0,52	14,0±0,50
Goats	1	25	660±21,8	11,2±0,91	12,4±0,71	13,5±0,69
	3-4	25	896±36,5	12,0±0,84	12,6±0,84	15,2±0,58
	6-7	25	847±30,4	11,4±0,71	12,6±0,79	14,9±0,51

Table 2 Ratio and fineness of individual fiber types, (n=3), %

Gender age	Соотношение типов волокон, %			Тонина волокон, мкм			
	Fluff	Transition fibers	awn	Fluff	Transition fibers	awn	
	M±m	M±m	M±m	M±m	M±m	M±m	
Goats	1	70,6±4,3	8,7±1,1	20,7±1,2	14,4±1,1	31,7±2,4	80,7±3,1
	3-4	69,2±3,9	9,4±1,3	21,4±1,4	16,6±1,2	35,2±2,6	82,1±3,6
	6-7	67,3±32,7	10,2±1,3	22,5±1,6	15,1±1,2	36,4±2,7	82,0±4,1
Goats	1	69,0±4,0	9,4±1,4	21,6±1,6	14,9±1,3	30,4±2,5	86,7±4,1
	3-4	67,4±3,5	10,4±1,5	22,2±1,7	17,4±1,3	35,9±2,7	89,6±4,3
	6-7	65,9±3,2	11,3±1,6	22,8±1,9	21,9±1,4	36,4±2,9	92,8±4,6

Data on wool clippings and natural length of braids are given in Table No. 1.

Analysis of the data shows that the wool clipping of goats was in the range of 627±74.6 -816±78.9 g, while it was not the same in animals of different ages. The greatest clipping was observed in goats of 3-4 years of age - 816 ± 78.7 and it exceeded the indicators of yearling goats by 30.1% and older goats by 15.2 percent.

A similar difference was noted among goat groups. Thus, the greatest wool clipping was recorded in goats of 3-4 years of age - 896.0 ± 36.5; the smallest clip was noted in one-year-old goats - 660.0 ± 21.8 g. In terms of wool clippings, old goats occupied an intermediate position - 847.0 ± 30.4 g.

In terms of wool clipping, sexual dimorphism was clearly evident. For all age groups, the hair clippings of goats were higher than those of goats and the difference, accordingly, was -33.0; 80.0 and 39.0 grams. A study of the natural hair length of goats showed that in all cases, both in goats and goats, the hair in the thigh area was slightly longer than on the shoulder blade and barrel. Whereas the length of the wool in the area of the shoulder blade and barrel was approximately equal.

In terms of age, the length of the fur of 3-4 year old goats in all parts of the body was the greatest. A similar difference was noted in the fur length of goats. Table No. 2.

A study of the ratio of individual types of fibers in goat wool showed that wool mainly consists of fluff and guard fibers; the transitional hair content was in the range of 8.7-10.4 percent. With increasing age, the content of down fibers slightly decreased, and the content of guard fibers increased. The wool of goats contained slightly more guard fibers than that of female goats. At the same time, the downy fibers were characterized by the required fineness, and the guard hair was quite thick and brittle. In terms of

the ratio of fluff, transitional and guard hair, the indicators of local goats in Karakalpakstan were close to those of goats in other regions of Uzbekistan.

Thus, the results of studying the quantity and quality of wool of local goats of Karakalpakstan allow us to conclude that they are characterized by relatively moderate wool, while the wool is distinguished by a high content of fluff and guard fibers. Down and transition fibers are relatively thin, while guard hair is coarse and brittle, which negatively affects their cost.

## References

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