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BIOLOGICAL CHARACTERISTICS AND FERTILITY OF MEAT WOOL SHEEP

Khojabayev A. G.
Bekmuradova F. R.
Sapaeva L. M.
Nukus Branch of the Samarkand State University of Veterinary Medicine, Animal Husbandry and Biotechnology

Abstract
The article describes the timing of calving, methods of calving, productivity, growth and development of the offspring of meat-wool sheep of Uzbekistan.

Keywords: meat, wool, breeding, sheep, breed, artificial insemination, live weight, wool, lamb.

Introduction

The biological characteristics of sheep are a complex of morphophysiological characteristics that determine the characteristics of productivity and the influence of the body on the reaction of the external environment.

This is why it is important that sheep reach their full genetic potential. One of the main features of sheep is their high adaptability to various conditions and high plasticity. Sheep are animals well adapted to pasture conditions. Of the 800 plant species that animals eat in the world, sheep eat 520, cattle eat 460, and horses eat 416.

Work on the creation of breed groups of meat-wooled sheep of Uzbekistan began in the second half of the last century, that is, from 1953-1954, and was carried out by scientists of the Scientific Research Institute of Animal Husbandry. One of the sheep breeds that is well adapted to breeding in the mountainous regions of the republic is the woolly meat sheep, which differs from other sheep breeds by its good adaptation to environmental conditions (rain, snow and wet cold). This breed of sheep has characteristics that allow it to realize its high hereditary potential in terms of productivity under good pasture conditions.

The biological characteristics of meat-wool sheep depend not only on their physiology, but also on anatomical features: they have proportionality to the surface of the head, strength of teeth, rapid mobility of small lips, the ability to eat low-growing plants, dry stems, herbs, and even finding food on infertile pastures is different from other farm animals.

Sheep not only make good use of all types of pastures, but also tolerate the quality of pastures well, eat a variety of plants, including bitter, strong-smelling, prickly ones, most of which are animals that can freely eat alien plants. . These characteristics of sheep are of great practical importance, mainly because they increase the efficiency of land use that is unsuitable for growing crops or where it is not possible to feed other types of farm animals.

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The use of methods for keeping sheep in pasture conditions will further increase the economic efficiency of the farm, and with sufficient pasture conditions, even in winter, the introduction of grazing on pastures will save feed, increase their productivity and improve health.

Most meat-wool sheep breeds use their fat deposits in extreme (unfavorable) conditions with interruptions in feeding and irrigation, and with good feeding, fat accumulates in the body.

The use of artificial insemination in sheep breeding significantly increases the use of the genetic potential of high-value cattle. Compared to the method of natural insemination, artificial insemination of sheep makes it possible to fertilize more than a hundred sheep from the semen of breeding rams in one lambing season. At the time of artificial insemination during the breeding season, there are 500-700 ewes per head of a breeding ram. With the seeds of well-known rams with high breeding value, 5-6 thousand ewes can be artificially inseminated per season, and with natural insemination from one ram - 40-50 ewes.

RESULTS AND DISCUSSION

Meat-wool sheep differ from other breeds of sheep in their resistance to external environmental conditions, rapid aging, multi-generation, soft, loose and juicy meat, and high wool productivity. However, in subsequent years, scientific research to improve the breeding characteristics of these sheep, and especially to study the influence of different wintering periods on the productive characteristics of the offspring, was not carried out. In our studies, we studied the indicators of live weight and wool productivity of ewes of the meat-wool breed and Jaidari ewes (Table 1).

Table 1 Live weight and wool productivity of ewes

Indicators	Unit	ewes of the Jaidari breed		Meat-wool ewes	
		п-100		п-100	
		$\overline{X}$,±S$\overline{x}$	Cv ,%	$\overline{X}$ ±S$\overline{x}$	Cv ,%
Live weight	kg	58,3±1,23	21,1	52,5±1,06	20,2
Amount of wool when shearing	kg	2,54±0,072	12,75	3,8±0,126	14,78
Weight after washing	kg	1,43±0,04	12,37	2,4±0,051	9,54
Wool length	sm	11,07±0,163	6,59	13.2±0,034	10,14

According to Table 1, the live weight of jaidari ewes was higher by 5.8 kg (11.0%) compared to the live weight of meat-wool ewes. In terms of wool productivity, sheep of the meat-wool breed achieved better results compared to sheep of the Jaidari breed: the amount of wool per shearing was 1.26 kg (49.6%); weight after washing – 0.97 kg (67.8%); wool length - by 2.13 cm (19.2%), a higher result was noted. It is worth noting that in terms of wool productivity of mature-aged sheep, these sheep exceed the

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minimum standard breed requirements for this meat-and-wool area. This indicates that meat-wool sheep have fully retained the genetic potential of wool productivity.

Newborn lambs need an average of 5 kg of mother's milk to gain each kilogram of excess weight, and at the age of 2.0-2.5 months they need to suck 1.2-1.5 liters of mother's milk per day to gain an average of 250-300 grams weight per day. By the middle of the lactation period, the amount of mother's milk gradually decreases, and the lambs' need for nutritious feed increases. Therefore, lambs are introduced to concentrates, hay and succulent feed from 15-20 days of age; the best soft feed for lambs are oats and barley; The succulent feed included chopped root vegetables, and they were fed quality alfalfa hay as much as they wanted.

We studied the live weight of lambs in the experimental groups at birth, 30 days and 3 months of age (Table 2).

Table 2 Indicators of live weight of lambs, kg

Age	Sex	Jaidari lambs			Meat-wool lambs		
		I			II		
		n	$\overline{X} \pm S\overline{x}$	Cv,%	n	$\overline{X} \pm S\overline{x}$	Cv %
At birth	Ram	26	5,3±0,17	16,8	24	5,0±0,08	8,4
	Female lamb	24	4,9±0,04	4,08	26	4,7±0.07	8,1
in 30 days	Ram	26	17,7±0,263	7,57	24	17,2±0,357	10,2
	Female lamb	24	17,2±0,54	15,4	26	17,0±0,322	9,7
3 months old	Ram	26	34,0±0,45	6,73	24	32,5±0,694	10,5
	Female lamb	24	31,6±0,577	8,95	26	31,2±0,314	5,13

Analysis of the table data showed that the live weight of lambs born from purebred Jaidar ewes of group I, compared with peers of group II - 0.3 kg (6.0%) and female lambs - 0.2 kg (4.3%) , in 30-day-old rams - 0.5 kg (2.9%) and lambs - 0.2 kg (1.18%), rams aged 3 months - 1.5 (4.6%) and lambs - 0 .4 kg (1.28%) was higher. These data show that the live weight of lambs born from purebred Jaidari ewes is higher than that of their peers.

We studied correlation coefficients between lamb selection traits (Table 3).

Table 3 Correlation coefficients between lamb selection traits

Signs of reciprocity	Lambs from artificial insemination	Lambs from natural insemination
Groups	I	II
Live weight at birth and live weight at 10 days	0,685	0.715
Live weight at birth and live weight at 3 months	0,490	0,637
Live weight at 10 cubs and live weight at 3 months	0,534	0,598

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As can be seen from the table, highly positive correlation coefficients were found between the live weight at birth, live weight at 10 days and 3 months of age, and live weight at 10 days and live weight at 3 months of age of lambs obtained from artificial insemination in group I and from natural insemination in group II. These data showed that carrying out selection works on the positive correlation coefficients determined between the selection traits of lambs increases the selection efficiency.

Conclusion

The fertility of meat-wool sheep is 100-130%; high early maturity combined with high fertility makes it possible to quickly recoup the money spent.

Thus, today, one of the urgent tasks of cattle breeders is, firstly, to bring technological processes closer to the biological requirements of sheep, and secondly, to create high-fertilizing, fast-maturing sheep breeds suitable for use in modern conditions with targeted selection methods.

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