



CODEN [USA]: IAJPBB

ISSN: 2349-7750

## INDO AMERICAN JOURNAL OF PHARMACEUTICAL SCIENCES

<http://doi.org/10.5281/zenodo.3367345>

Available online at: <http://www.iajps.com>

Research Article

### MEAT PRODUCTIVITY OF YOUNG GROWTH OF THE CREATED DOWN TYPE OF THE TUVAN GOATS

Raisa Irgit<sup>1</sup>, Chechena Sambu-Khoo<sup>2</sup>, Yusup Yuldashbaev<sup>3</sup>, Rada Salbyryn<sup>1</sup>,  
Anatoliy Kaledin<sup>3</sup>, Svetlana Ondar<sup>1</sup>

<sup>1</sup>Tuva State University, Kyzyl, Russia, <sup>2</sup>Tuvanian Scientific Research institute of Agriculture, Kyzyl, Russia, <sup>3</sup>Russian State Agrarian University – Moscow Timiryazev Agricultural Academy, Moscow, Russia.

**Article Received:** June 2019

**Accepted:** July 2019

**Published:** August 2019

**Abstract:**

*The article presents the results of a study of the meat productivity of young animals of the downy type of Tuvan goats created. An assessment of the level and quality indicators of meat productivity of goat-castrates of different ages. The studies were carried out on the bases of SPPK "Uurgay" of the Erzinsky district of the Republic of Tuva and the scientific laboratory of animal husbandry at Tuva State University. The results of the study showed that the young of the downy type of Tuva goats being created has high meat productivity, surpassing peers and adult animals of some downy breeds of goats in Russia and the CIS countries in quantitative and qualitative indicators.*

**Keywords:** *Tuvan goats, goat meat, productivity, slaughter yield, slaughter weight, meat ratio, protein, fat, calorie content.*

**Corresponding author:**

**Raisa Irgit,**  
Tuva State University, Kyzyl, Russia.

QR code



*Please cite this article in press Raisa Irgit et al., Meat Productivity Of Young Growth Of The Created Down Type Of The Tuvan Goats., Indo Am. J. P. Sci, 2019; 06(08).*

**INTRODUCTION:**

In the Republic of Tuva, in connection with the actualization of the problem of preserving the gene pool of local breeds and offspring of farm animals, with the adoption of appropriate measures in this direction, the number of coarse goats has increased significantly in recent years, which allows to increase production and expand the range of livestock products.

Tuvan goats, having a combined direction of productivity, have good potential for down, wool, meat and dairy productivity, have genetically determined high feeding qualities, and quickly restore live weight loss after the winter period.

At present, in the southern zone of the republic, herds of Tuvan goats with increased down productivity have been created. Animals have a fairly high live weight: goat-producers, depending on age, weigh from 65 to 74, goats-from 43 to 49 kg.

The goats of the southern zone are superior to coarse-haired and downy breeds of goats of some regions of Russia and the CIS countries in terms of live weight and growth rate, and produce quite high-quality "kashgor" fluff [5, 6].

One of the promising areas of animal husbandry in modern economic conditions is the intensification of the production of young meat. In this regard, the study of meat productivity of Tuvan goats is very relevant.

The purpose of this work is to assess the level and quality indicators of meat productivity of young animals of different ages of the downy type of Tuva goats being created.

**MATERIAL AND METHODS:**

The studies were carried out on the bases of SPPK "Uurgay" of Erzinsky district and the Scientific and Production Center "Animal Breeder" of Tuvan State University. The meat productivity of castrate goats was studied at 8 (n = 3) and 17.5-month (n = 3) ages. Animals at the appropriate age were randomly selected for 3 heads from a herd of young animals that were on the feeding ground under normal farm conditions on high mountain pastures with salt fed with lick and watering freely.

Control slaughter of young animals was carried out according to the method of VIZH (1985).

The morphological composition of the carcasses was studied by deboning in accordance with GOST 7596-81.

Laboratory analysis of the chemical composition of meat was carried out in the biochemistry laboratory of SibNIPTIZh SFNTSA RAS (Novosibirsk) according to the generally accepted method.

**RESULTS AND DISCUSSION:**

The results of the study of slaughter qualities showed that carcasses weighing an average of 11.04 kg can be obtained from goat-castrates of 8 months of age. By the age of 18 months, this indicator increases by 67.4% compared to 8 months (Table 1).

Table 1: Meat Productivity of Tuva Down Goats

Indicator	Age, month	
	8	17,5
Live weight before slaughter, kg	24,62±0,89	39,93±0,30
Weight of fresh carcass, kg	11, 04±0,55	18,48±0,11
Mascara yield,%	44,84±0,33	46,28±0,25
Mass of internal fat, kg	0,74±0,03	1,33±0,01
The output of internal fat,%	3,01±0,28	3,33±0,34
Slaughter weight, kg	11,78±0,67	19,81±0,19
Slaughter yield,%	47,85±0,56	49,61±0,26

The difference in carcass yield between the indicated age groups is 1.44%, in the mass of internal fat - 79.7, the yield of internal fat - 0.32, the slaughter mass - 68.2, the slaughter yield - 1.76%.

In terms of slaughter yield, young Tuva goats of down type of the indicated ages have advantages over down breed of goats bred in the country. So, according to the information provided by A.I.

Erokhin et al. (2018), the goatskin goats of 7 months of age had a slaughter yield of 42.7, the castrated goats of the Orenburg breed of 12 months of age - 43.9, the Dagestan 8-month-olds - 40.3, the Kyrgyz 7-month-olds - 41.8, 18-month-olds - 46.2% [2, 3].

Chikalev A.I. and Yuldashbaev Yu.A. (2012) provide the following data: the slaughter yield of adult castrats of the Orenburg breed is in the range of 40–

45, Dagestan — 42–44, Gorno-Altai — 45–55, and near-Danish — 43–47% [7]. In adult fattened animals of the near-Don breed, it reaches 50% [8].

There is also evidence that the slaughter yield in goats of the Orenburg breed is on average 45–46%, in adult goat-castrates 47–53% [9].

Downy Tuvian goats produce carcasses with a high content of edible parts, which make up 75.83% in 8-month-old carcasses and 79.85% in 17.5-month-old carcasses (Table 2).

Table 2: Morphological composition of carcasses of Tuva goats of the down type

Indicator	Age, month	
	8	17,5
Weight of chilled carcass, kg	10,80±0,25	18,17±0,19
Pulp mass, kg	8,19±0,11	14,51±0,09
%	75,83±0,82	79,85±0,77
The mass of bones, tendons and cartilage, kg	2,61±0,09	3,66±0,07
%	24,16±0,41	20,14±0,29
Meat ratio	3,13±0,07	3,96±0,07

By 17.5 months of age, compared with 8 months of age, the mass of pulp in the carcass becomes 77.2, the meat ratio is 26.5%.

In young Tuva goats, the proportion of pulp in the carcass is slightly larger than in most downy breeds. The difference with 30-month-old castrats of the Gorno-Altai breed, having a pulp yield of 75.5% [1], is 0.33% at the age of 8 months and 4.85% at the age of 18 months, with the Orenburg 12-month-old 5.83 and 9.85, 25-month-olds 4.23 and 8.25, with Dagestan 8-month-olds - 3.23 and 7.25, with Danish 7-month-olds 2.35 and 6.35%. The difference between Tuvan and Kyrgyz 18-month castrats is 2.05%.

Tuva goats noticeably surpass these breeds in terms of meat ratio. So, for 30-month-old castrats of the Gorno-Altai breed, this indicator is 3.0, Orenburg 12-month-old - 2.93, 25-month-old - 2.70, in Dagestan 8-month-old - 2.65, near-bottom 7-month-old - 3, 0, Kyrgyz 7-month olds - 2.83, 18-month olds - 3.50 [2]. The data presented show that Tuva goats of the down type possess good slaughter and meat qualities.

To assess the nutritional and energy value of meat, a chemical analysis of the average sample and calorie calculation were carried out (Table 3).

Table 3: Chemical composition and calorie content of goat meat

Indicator	Age, month	
	8	17,5
Moisture%	71,08±2,21	69,98±2,21
Fat%	9,15±2,11	9,18±2,11
Protein%	19,76±0,12	20,05±0,12
Ash%	0,77±0,01	0,78±0,01
Calorie meat, MJ	6,72	7,02

The chemical composition of goat meat is characterized by the following age-related features: the caloric content of meat in older goats is higher by 0.3 MJ due to the higher fat content (0.03%) and protein (0.29%), the ratio of fat to protein 8-month-old goats are 1: 2.15, for 17.5-month-olds - 2.18.

Thus, the meat of Tuvan downy goats is a low-calorie high-quality protein product.

### CONCLUSION:

The young of the downy type of Tuva goats being created has a rather high meat productivity, surpassing peers and adult animals of some downy

breeds of goats in Russia and the CIS countries in quantitative and qualitative indicators both at the age of 8 months and at 17.5 months. Goat meat of the considered ages has almost equal values in protein content and calorie content. Given the downy direction of productivity, it is advisable to sell castrates at the age of 18 months after receiving downy products at the age of one year and subsequent feeding up to 18 months of age.

#### REFERENCES:

1. Alkov G.V. 1999. Productive and biological characteristics of goats of the Altai down breed. Novosibirsk, Russia.
2. Erokhin A.I., Karasev E.A., Erokhin S.A. Meat productivity of goats in different directions of productivity. Sheep, goats, wool, 2018; # 2: 22-24.
3. Erokhin A.I. 2001. Homestead farming. Breeding sheep and goats. Moscow, Russia: EKSMO-Press.
4. Zelensky G.G. 1981. Goat breeding. Moscow, USSR: Kolos.
5. Irgit R.Sh., Ondar S.N. Live weight of coarse goats in the southern zone of Tuva. Sheep, goats, wool, 2017; # 1: 25-26.
6. Irgit R.Sh., Saaya T.A., Ondar S.N., Salbyryn R.Sh., Yuldashbaev Yu.A., Oyun G.L. Down and wool productivity of Tuvan goats. Agricultural Science, 2018; # 11-12: 9-15.
7. Chikalev A.I., Yuldashbaev Yu.A. 2012. Goat breeding. Moscow, Russia: GEOTAR-Media.
8. Down goat farming. <http://fermer02.ru/animal/koza/5297-puhovoe-kozovodstvo.html>.
9. Classification of goat breeds. [https://borona.net/peredovye-tehnologii/kozovodstvo/porodi\\_koz](https://borona.net/peredovye-tehnologii/kozovodstvo/porodi_koz).