



Changes in the Exterior Indicators of New Zealand White Rabbits in the Postembryonic Period

Ibragimov B.B. (PhD)

Samarkand state university of veterinary medicine, livestock breeding and biotechnology

Abstract: This article discusses an increase in some of the external articles of the body of rabbits of the New Zealand white breed from birth to one month of age, and on the change in the body's proportions. With the help of these indicators it is possible to judge the growth rate of young rabbits of the New Zealand white breed.

Keywords: Rabbit breeding; New Zealand White Breed; point body; growth; measurement; jigging.

Actuality. Rabbit breeding is one of the livestock industries that breeds the most early-ripening animals and produces meat and other products at low cost of feed, labor and funds. Rabbits are distinguished by high fertility and vigor of growth. With proper feeding and maintenance, from each full-fledged rabbit at 5-6 births per year, you can get more than 30 rabbits, and after weaning them - about 60-70 kg of meat (in live weight) and, in addition, a significant amount of skins, fluff and skin.

According to A.T. Mysik, the number of rabbits in the world is 918219 thousand heads, including 13632 thousand heads in Africa, 27435 thousand heads in America, 510540 thousand heads in Asia, and 119695 thousand heads in Europe . Rabbit meat production worldwide will amount to 1834 thousand tons, which corresponds to a total population of 0.3 kg / person. The production of rabbit meat on the continents in Africa is 85 thousand tons or 0.08 kg / person, in America 333 thousand tons or 0.4 kg / person, in Asia 894 thousand tons or 0.2 kg / person, in Europe 522 thousand tons or 0.7 kg / person.

The main profit, as a rule, comes from the sale of meat, since the harvesting of skins in most regions is poorly developed. Furrier production is more labor-intensive, but it is also beginning to develop, due to the need for most regions of our country in warm fur clothes - a necessity. On average in Europe, consumption is 2 kg of rabbit meat per person per year (in Italy 4.5 kg), and in Russia 70 grams

In Uzbekistan, rabbit breeding is a developing industry of recent times. For the development of rabbit breeding, special attention is paid at the state level. For example, in order to develop rabbit breeding, in 2016 an agreement was reached on the supply of 1,500 heads of rabbits of the New Zealand breed from the Martini company, which specializes in rabbits in Italy. To increase the number of breeding rabbits in agricultural firms, 114 heads were distributed. Today, a number of measures are being taken in our country to develop rabbit breeding, not only on the basis of industry, but also to expand rabbit breeding in the household plots of the population.

So far, in this area, many biological and useful agricultural characteristics of rabbits have been little studied in our country than in other branches of animal husbandry. The age-related change in the proportions of the body of a New Zealand White rabbit from birth to jigging makes it possible to study the initial growth rates of exterior indicators in the field of rabbit breeding.

Material and methodology. The research was conducted on rabbits belonging to the New Zealand breed in the backyard household of the population, which were brought from Italy to Uzbekistan. Body measurements were measured from birth to jiggling of kittens. Body measurements measured newborns, one week old, ten days old, fifteen days old, three weeks old, one month old. We measured the length of the torso, tail, chest and abdomen using a measuring tape; the length and width of the head, the depth and width of the chest, the length and width of the ears, the heel using a caliper; weight was measured by electronic balance. The obtained data were processed using Microsoft Office Excel 2007 software (according to E.K. Merkuriva 1970).

Table 1. Age changes in the body of the New Zealand White rabbit from birth to jiggling, cm (n=10)

Body parts	Age, day					
	Newborn	7	10	15	21	30
	M±m	M±m	M±m	M±m	M±m	M±m
Head length	3,08±0,04	4,03±0,03	4,42±0,05	4,68±0,103	5,18±0,05	6,51±0,109
Head Width	1,76±0,04	2,44±0,03	2,52±0,03	2,74±0,04	3,01±0,02	3,42±0,04
Ear length	1,64±0,05	2,45±0,04	3,28±0,04	4,31±0,04	5,64±0,04	8,77±0,12
Ear width	0,85±0,01	1,26±0,03	1,41±0,03	1,84±0,05	2,24±0,02	3,12±0,03
Torso length	11,0±0,14	12,41±0,10	14,98±0,12	15,94±0,25	18,50±0,12	24,76±0,29
Chest girth	8,43±0,21	10,35±0,10	11,32±0,07	12,20±0,14	13,87±0,16	18,04±0,29
Chest depth	2,27±0,04	2,70±0,05	2,91±0,04	3,19±0,03	3,82±0,03	4,44±0,04
Chest width	2,01±0,06	2,46±0,03	2,60±0,03	3,07±0,03	3,41±0,05	4,42±0,04
Heel length	2,04±0,05	3,47±0,04	4,03±0,04	4,73±0,14	5,87±0,08	8,56±0,14
Tail length	1,83±0,07	2,65±0,04	2,95±0,05	3,08±0,06	3,71±0,05	5,09±0,12
Live weight, g	52,0±3,00	110,0±3,80	144,5±7,21	172,0±6,38	286,0±10,27	634,0±12,60

Research results. The data obtained in the experiment are shown in Table 1. From birth, in rabbits, the length of the head by the ratio of the length of the body is 28.0%. And at a week of age, this ratio is 32%. At ten days, fifteen days and three weeks of age, this ratio is 28-29.5%, respectively. At the age of one month, the length of the head in relation to the length of the body is 26.3%. From these results, it can be judged that the proportionality of the length of the head increases to 4% at a week of age. At ten days, fifteen days, and three weeks of age, this ratio is almost unchanged. At the age of one month, the length of the head by the ratio of the length of the body decreases to 1.7% compared with birth. The length of the ears in rabbits from birth was 1.64 ± 0.05 cm, or 53.2% of the head length ratio. At a week of age, this ratio reaches 60.8%. At ten days of age, 74.2%. At fifteen days of age, 92.1%. At three weeks of age 108.9%. And already at the age of one month, the ratio reached 134.7%.

The results show that the length of the ears increases intensely. At three weeks of age, compared with the length of the head, the length of the ears was superior by 8.9%. That is, the rabbits became "eared". At the age of one month, the length of the ears compared with the length of the head already exceeded by 34.7%. The results show that the proportionality of the ears compared with the length of the head from birth to one month of age varies greatly.

The ratio of ear width to ear length from birth to one month of age was 51.8%, 51.4%, 43.0%, 42.7%, 39.7%, 35.6%, respectively. The proportionality of the width of the ears with the comparison of the lengths of the ears shortened with age. Also, such a trend was found between the ratio of the

chest girth to the girth of the abdomen, respectively: 94.6%, 90.6%, 86.8%, 85.4%, 84.0%, 83.5%. The change in proportionality between the ratio of chest girth to belly girth indicates that the gastrointestinal tract of rabbits expands with development.

The heel length from birth was 2.04 ± 0.05 cm, i.e. corresponded to 66.2% of the length of the head. At a week of age, this ratio reached 86.1%, at ten days of age 91.2%. And already at fifteen days of age, the length of the heel exceeded by 1.1% against the length of the head. At three weeks and months of age, this ratio was respectively: 113.3%, 131.5%.

The proportionality between the length of the heel and the head from birth to the age of one month has changed greatly. Increasing the length of the heel makes it possible to overcome the barrier of the socket hole. The rabbits became jumpers. The length of the tail in relation to the length of the body up to one month of age was in the range of 16.6-21.35%.

Live weight is the main indicator of the exterior. The live weight at birth of rabbits was 52.0 ± 3.00 g. At a week of age, the live weight was 110.0 g, which was 2.12 times more than the initial live weight. At ten days of age, this figure increased by 2.79 times, at fifteen days of age by 3.31 times, at three weeks of age by 5.50 times, at one month of age 12.20 times more than the initial live weight.

Conclusions. In rabbits, from birth to one month of age, a change in the proportionality of the body occurs. This is especially observed in the length of the ears, head, heels and live weight, which is associated with the biological and physiological characteristics of rabbits.

References

1. Daniyerov R. X., Ibragimov B. B., Ermatov Yu. A. Quyunchilikda qo'llaniladigan ayrim ilmiy-tadqiqot usullari. Перспективные задачи разработки и внедрения инновационных технологий в ветеринарии и животноводстве" международная научно-практическая конференция 14-15 октября. Самарканд, 2022.
2. Ибрагимов, Б. Б., Джамбилов, Б. Х., Уракбаев, Й. А., Даниеров, Р.Х. (2021). Эффективность кормовой депривации при откорме кроликов. Витебская государственная академия ветеринарной медицины. – С. 39-41
3. Меркурьева Е.К., «Биометрия в селекции и генетике сельскохозяйственных животных» Колос. Москва- 1970 423 с.
4. Мурьянова.Е.Л. “Детализированное кормление кроликов и его влияние на мясную и пушно-меховую продуктивность” дисс (к.с-х.н) Нижний Новгород 2009 г.
5. Мысик А.Т., “Развития животноводства в мире и России” Ж. Зоотехния. №1 2015 3с.