



Feed Conversion Depending on the Age and Sex of Rabbits

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Summary: The article presents materials on the research of feed conversion depending on the age and sex of New Zealand White rabbits from one month to twelve weeks.

Keywords: Rabbit, feed conversion, sex of rabbits, age, and live weight.

Relevance. Rabbit farming is a fast-growing branch of livestock farming, producing nutritious meat, tweed, fur and other products. Currently, the world produces more than 2.0 million tons of rabbit meat, 70% of which is produced in China, Italy, France and Spain. China produces 660,000 tons of rabbit meat, 330,000 tons in Italy, 250,000 tons in France, 180,000 tons in Spain and 15,000 tons in Russia. China earns \$2 billion and Hungary \$50 million from rabbit meat exports.

The development and implementation of new technologies that increase the productivity of farm animals, the transformation of food products into synthesis products, fattening and its efficiency have always been the focus of attention of researchers.

One of the main goals of animal science is the rational use of the biological properties of animals and the development of methods and techniques, as well as technologies. Knowing the level of food digestibility in fattening animals is of great economic and zootechnical importance when breeding and caring for them, and determining the quantity, rate and order of feeding young animals from the first days of their life is the basis for targeted breeding of animals.

Female rabbits can give birth 7-8 times and, under favorable housing and feeding conditions, produce 50-60 offspring. The live weight of rabbits in a nest depends, first of all, on the breed, live weight of the female rabbit, living conditions, feeding rates and the number of children in the litter. The live weight of rabbits born in a nest ranges from 35 to 90 grams. Among farm animals, rabbits grow the fastest. Newborn rabbits increase their live weight by a third on the second day of life, on the sixth day - twice, at ten days of age - three times, at three weeks of age - five times, at a month of age - ten times. Such rapid growth is associated primarily with rabbit milk and its chemical composition. Meat breeds of rabbits dominate in daily live weight gain. New Zealand and Californian breeds, with good care, gain 40-50 g of live weight. In meat-and-wool breeds of rabbits, the daily gain is comparatively lower and averages 25 g per day. Feeding plays an important role in the effective management of the industry; the conversion of feed into the formation of livestock products is an indicator that determines the economic indicators of the development of the industry.

Purpose of the study. It consists of studying feed conversion depending on age and sex in the period from one month to twelve weeks of age during the slaughter of rabbits for broilers.

Material and methods. To determine the feed conversion of rabbits in the period from one month to twelve weeks of age, they were carried out on rabbits of the New Zealand breed kept in the breeding group of the multidisciplinary farm "Ikrom Makhmudov" in the Gallaorolsky district. The experimental group was formed from ten month-old rabbits (5 males and 5 females), taken from a nest of female rabbits. The rabbits of the experimental groups (males and females) were kept under the same conditions. Experimental rabbits were fed the same diet up to twelve weeks of age, and

their live weight was measured on electronic scales with an accuracy of ± 5 g. The data obtained as a result of the experiment were biometrically processed using the Microsoft Office Excel 2007 computer program.

Results and their analysis. The data obtained as a result of studies on feed conversion of rabbits of different sex and age groups are presented in tables 1 and 2. The average live weight of one-month-old rabbits separated from the mother was 724.0 ± 27.77 g, for female rabbits this figure was 765.0 ± 37.45 g, in male rabbits - 683.0 ± 35.02 g. At one month of age, the live weight of female rabbits was 82 g, or 12.0% higher than that of male rabbits. A total of 13.35 kg of pellets were used in an equal amount of 6.675 kg for male and female rabbits aged from one to one and a half months.

At the age of forty-five days, the average live weight of rabbits in the nest was 1377.0 ± 44.65 grams, the live weight of female rabbits was 1451.0 ± 55.46 grams, the live weight of male rabbits was 1303.0 ± 56.18 grams. It was found that the live weight of female rabbits was 148.0 grams, or 11.4% higher than that of male rabbits. The total conversion of feed for the acquisition of additional live weight of rabbits was 0.97 kg. In the group of females this figure was 0.92 kg, and in the group of male rabbits this figure was 1.02 kg, which was 0.1 kg or 10.9% more, respectively.

Table 1 Feed conversion of rabbits in different age and sex groups

Age, day –	Feed consumed, kg			Feed conversioni		
	Total, n=10	By gender, n=5		Total, n=10	By gender, n= 5	
		♀	♂		♀	♂
30-45	13.35	6.675	6.675	0.97	0.92	1.02
30-60	31.6	15.8	15.8	1.58	1.52	1.64
30-84	66.18	33.09	33.09	2.26	2.18	2.34

At two months of age, the average live weight of rabbits in the nest was 2001.0 ± 50.85 grams, and the live weight by sex groups was ♀ 2076.0 ± 61.10 grams, ♂ 1926.0 ± 71.33 grams. Before this period, 31.6 kg of feed was consumed for experimental rabbits. Rabbits of each sex group consumed 15.8 kg of feed, respectively.

During this period, the rabbits consumed 18.25 kg more feed pellets than at one and a half months of age. The total feed conversion in the experimental rabbits was 1.58 kg per kg of live weight, which was 1.52 kg in female rabbits and 1.64 kg in male rabbits. In the group of male rabbits, per kilogram of additional live weight, 0.06 kg or 3.8 percent more feed was consumed compared to the general group, as well as 0.12 kg or 7.9 percent more than in the group of female rabbits.

Table 2 Dynamics of live weight of experimental rabbits

Age, day	Live weight, g					
	Total, n=10		By gender, n=5			
			♀	♂		
	M±m	C _v %	M±m	C _v %	M±m	C _v %
30	724.0 ± 27.77	12.13	765.0 ± 37.45	10.95	683.0 ± 35.02	11.47
45	1377.0 ± 44.65	10.25	1451.0 ± 55.46	8.54	1303.0 ± 56.18	9.64
60	2001.0 ± 50.85	8.04	2076.0 ± 61.10	6.58	1926.0 ± 71.33	8.28
84	2929.5 ± 73.69	7.96	3033.0 ± 103.63	7.64	2826.0 ± 91.34	7.22

In total, rabbits in the nest up to twelve weeks of age (broiler quality) consumed 66.18 kg of feed, and rabbits of each sex group consumed 33.09 kg of feed pellets, respectively. The average live weight of rabbits was 2929.5 ± 73.69 g, this figure in the group of female rabbits corresponded to 3033.0 ± 103.63 g, and in the group of male rabbits it corresponded to 2826.0 ± 91.34 g.

The feed conversion for acquiring a kilogram of additional live weight for rabbits from the nest was 2.26 kg. This figure in the group of female rabbits was 2.18 kg, and 2.34 kg in the group of male rabbits, respectively. At the age of twelve weeks, female rabbits had a conversion 0.08 kg less than total feed conversion, since male rabbits had 0.08 kg more feed conversion.

Conclusion. From the results obtained, we can conclude that with increasing age, the feed conversion required to acquire additional live weight also increases. Taking into account feed conversion by age and sex when fattening rabbits for broilers is an important factor in reducing the cost of rabbit production and increasing the efficiency of fattening rabbits for meat.

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