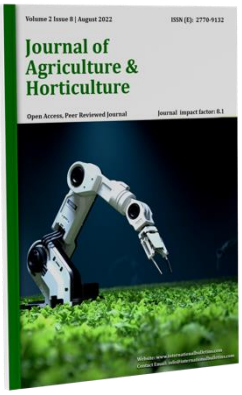

THE EFFECT OF PROBIOTICS ON THE GROWTH INDICATORS OF BREEDING KARAKUL LAMBS

A.Kh.Khatamov
PhD, senior researcher,
J.B.Qozoqov
basic doctoral student
Scientific-research institute of karakul breeding and desert ecology,
Samarkand, Uzbekistan
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Summary. The article presents the results of the study of the effect of probiotics on the growth characteristics of Karakul lambs at different ages.

Keywords. Karakul sheep, feeding, probiotic, nutritional supplement, growth, live weight, age periods.

Introduction. The role of sheep breeding in providing the population with food products is extremely important. Sheep are mainly fed with pasture fodder in pastures, they are adapted to feed on small plants, i.e. plants that cannot be eaten by other domestic animals in desert conditions, and coarse forages are well digested in their stomachs. Currently, it has been established that the use of additional feed additiveshas a positive effect on the growth and development of livestock.

When the probiotic preparation Melopola was added to the feed of lambs from 1 month of age at 1 gram per 10 kg of live weight for 30 days, the growth indicators were 12% higher than the control group. Feed digestibility increased by 7.8% [2].

Celibatarian probiotic plus primix nutritional supplement showed a 13.7% higher growth rate when added to a 4.5-month-old experimental group for 30 days [3].

When probiotic urea and sp^2 strain chlorella algae suspension were used as feed additives, the absolute growth of rams of the experimental group compared to the control group was 2.1 kg or 12.2%, daily growth was 34.9 g or 12.2% higher [7].

Based on the data obtained in the studies, it was determined that probiotics improve the digestion process in the stomach and intestines of the animal, increase the amount of milk and improve the chemical composition of the cows [6].

The productivity of gypsum desert wormwood-ephemeral pastures in Nurabad district was studied in protected and unprotected pastures in spring, summer, autumn, seasons. In the spring and summer of 2022-2023, respectively, 4.2, 3.73, 3.1, 1.2, 1.1, 1.0, s/g, and 2.5, 1.5, 1.4, 0.7, 0.3, 0.4 s/g was determined [1].

Research methods. Researches were carried out at "Sakhoba Ota" LLC, Nurabad District, Samarkand Region. 20 male lambs were selected for experiment and control.

Pasture productivity in the spring season was determined by the transect method based on the data of the methodological manual "Pasture Science" (M.M. Makhmudov et al., 2009) [5].

The groups were kept and fed in the same conditions, and the experimental group was given 300 g/t of probiotic "Aktivil-3" mixed with 50 g of wheat bran in 1 day for 10 days every month.

Composition: 1 kg of probiotic feed supplement contains: Clostridium butyricum 1 * 109 CFU/kg, Bacillus licheniformis 1 * 1012 CFU/kg, Bacillus subtilis 1 * 1012 CFU/kg.

Total number of bacteria: Bacillus 2×1012 CFU/kg, Clostridium 1×109 CFU/kg.

Colony-forming, excipients: calcium carbonate or dextrin.

Release form: Powder.

Live weight of lambs was measured at birth, 21 days, 4.5, 6, 12, 18 months on an electronic scale with an accuracy of 100 g.

The data obtained from the experiment were processed by the method of variational statistics. (N.A. Plokshinsky, 1969) [4].

Research results. In the spring of 2022, the amount of nutrients in pasture feed was 80.0 feed units per hectare, 1625.0 g of metabolic energy, 213.0 kg of dry matter and 21.25 kg of crude protein, respectively, in summer and autumn. 48.0, 44.8; 975.0 910.0 g; 127.8, 119.28 kg; It was 12.7, 11.9 kg. By 2023, this figure decreased slightly and amounted to the following seasons, respectively: 22.4, 9.6, 12.8; 455, 195, 260; 59.64, 25.56, 34.08; 5.95, 2.55, 3.4.

Based on the measurements taken during the experiment, the growth indicators of lambs and rams that consumed probiotics are presented in Table 1 below.

Table 1

Live weight change dynamics of lambs, kg n=20

Age	Guruhlar			
	Experimental group		Control group	
	X±Sx	Cv, %	X±Sx	Cv,%
At birth	4,09±0,05^{x}	5,96	4,19±0,05	5,36
In 21 days	9,8±0,12 $^{x)}$	5,8	8,3±0,08	4,2
4.5 months old	26,7±0,27$^{x)}$	4,6	24,2±0,15	2,3
6 months old	32,3±0,27$^{x)}$	3,8	28,6±0,3	4,4
12 months old	48,3±0,25^{x}	2,73	42,7±0,26	3,04
18 months old	57,8±0,32^{x}	2,76	51,1±0,32	3,0

Note: x-P>0.95, x)- P>0.999.

As shown in the table above, the effect of probiotics on lambs was 0.1 kg or 2.4% higher in the control group compared to the experimental group at birth,1,5 kg or 18%, 2.5 kg or 10.3% at the age of 4.5 months, 3.7 kg or 12.9% by the age of 6 months, 5.6 kg or 13.1% at the age of 12 months and we can see that at 18 months it was 7.2 kg or 13.2% higher.

The reason for the high growth rates of the experimental groupis that probiotics improve the metabolism of ruminants, as well as improve the absorption of nutrients necessary for life in the consumed feed.

It is known that, roughage is the main part of the feed in pastures in summer, autumn and winter. Probiotics also improve the digestion of hard-to-digest coarse feeds rich in fiber. Feeding animals probiotics creates a safe gastrointestinal environment, quickly adapts animals to energy feeds, and increases the biological value of feed protein. We can see this from the results of research.

Also, 60-70% of the feed consumed by ruminant animals is decomposed in the rumen, if the microflora of the rumen is not good, the level of digestion will decrease.

In conclusion, due to the improvement of intestinal microflora of lambs and rams with probiotics, growth at different ages was 18% at 21 days, 10.3% at 4.5 months, 12.9% at 6 months, 13 at 12 months, 1%, and at 18 months we can see that it increased by 13.2%.

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