



EFFICACY OF TISSUE PRODUCTS IN KARAKUL LAMBS, WHEN SHOWN BY DIFFERENT NUTRITION.

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Received: May 11 th 2021	The article notes the positive dynamics of V.P. Filatov's experiments results on the tissue preparations effect from fish liver and spleen on the average daily growth of lambs receiving various nutrients.
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TOPIC RELEVANCE

Treatment with tissue preparations (biogenic stimulants) is now one of the most widely used non-specific stimulation methods based on the drugs delivery obtained by preserving animal or plant tissues for preventive and therapeutic purposes[1,6].

Biostimulants are substances that are formed in animal and plant tissues under certain conditions and have the biological activity property [2,3].

These drugs were put into practice in 1933 by academician V.P. Filatov. According to Filatov, animal tissues isolated from the body do not die suddenly; their metabolism continues. This condition depends on the tissue condition. When exposed to adverse factors, tissues produce very active biological substances. Filatov called these substances resistance substances or biogenic stimulators [1,6].

Under the leadership of academician V.P. Filatov, together with their students and followers, they established the textile preparations production from various organs and tissues of animals and people. It was a great scientific discovery in science. These drugs are absolutely harmless, containing naturally physiologically active substances, including organic acids, vitamins, trace elements, enzymes, etc., stores and is of great importance in veterinary science, medicine, the diseases treatment. Academician Filatov used tissues of slaughtered healthy animals to make tissue preparations. In particular, it is obtained from the spleen, liver, muscles, ovaries, blood, pancreas, skin, placenta, nerves, subcutaneous tissue, eyes and other tissues as well as under the influence of various factors (cooling, dark content, etc.) , as well as microflora and prepared from peat and mud residues[1,3,4].

In cattle breeding preparations prepared according to V.P. Filatov technology are used in 2 directions: as a prophylactic agent to strengthen the young body resistance to adverse environmental factors and increase the productivity of fattening animals. Activating the most important physiological systems activity, they improve metabolism, increase animals growth and energy. However, the physiological potential reserves of the animals body have their limits, so the use of biostimulants must be scientifically justified. Continuous use of tissue drugs is known to often lead to "fatigue". This means that growth energy and performance begin to decline [4,6].

Scientists disagree on the tissue preparations specifics. Some biogenic stimulants are histologically or nonspecifically targeted, so they act on the whole organism [4]. Others argue that tissue preparations made from certain organs have a stimulating effect on that particular organ [1,3]. Therefore, in our own research, we examined the effects of tissue preparations on Karakul lambs receiving low- and high-protein diets.

RESEARCH PURPOSE.

To study the tissue preparations effect on the live weight and blood parameters of karakul lambs fed diets of different nutritional value.

OBJECT AND METHODS OF RESEARCH

Our experiments were conducted on karakul sheep grazing in an experimental farm of Samarkand veterinary medicine institute. For this, 3-month-old lambs were selected and tested in 4 groups (3 heads in each).

The control group of the first group received a subcutaneous preparation of fish liver for lambs of the second group at 0,1 ml/kg dose once a week, a preparation of spleen tissue 0,1 g/kg once a week for lambs of the third group, growth for the fourth experimental group and lambs behind in development (live weight below 8 kg) were injected subcutaneously at 0,1 ml/kg dose once a week to fish liver prepared.

During the experiment, weekly lamb weight gain and feed intake were taken into account. During the experiment, the lambs were weighed on a live weight scale, and blood analysis was performed using generally accepted methods. Statistical processing of the survey results was conducted according to V.K. Kuznetsov method.

RESEARCH RESULTS

During the first period of the experiment, lambs were given a diet containing cereals (wheat, barley, wheat bran, vitamin-mineral premix). The amount of digestible protein did not exceed 11.4%. These experiments show that lambs receiving tissue preparations developed better than the control group (Table 1).

Effect of tissue preparations on weight gain in lambs fed a low-protein diet.

Table 2

Indicators	Control group	experimental group 1*	experimental group 2 **	experimental group 3***
Average live weight at the beginning of the experiment, kg	8,5±0,57	8,7±0,49	8,9±0,66	5,6±0,33
Average live weight after 14 days of experiment, kg	10,7±0,89	11,1±0,84	11,8±0,79	6,8±0,43
Average daily growth, g	157	171	207	86
Daily feed consumption g / head	400	415	525	184
Conversion of feed to product	2,5	2,4	2,5	2,1

Note:

* - the liver tissue preparation prepared according to V.P. Filatov's method was injected into lambs subcutaneously once a week at 0.1 ml/kg dose;

** - the preparation of spleen tissue at 0.1 g/kg dose was injected subcutaneously into lambs once a week;

*** - the lambs lagging behind in growth and development (live weight less than 8 kg) were selected, and the liver tissue preparation was injected into lambs subcutaneously once a week at 0.1 ml/kg dose.

This table shows that the average daily growth of lambs in the first experimental group was 6.7% higher than the control. During the 14-day experiment, the growth of the 2nd experimental group of lambs was 207 g, which is 24.1% higher than that of the control lambs. If we take into account the consumption of food in this group, it exceeds the indicators of the control group, but the assimilation of nutrients is very efficient, and the conversion of food to a product clearly shows this. The third experimental group consisted of lambs lagging behind in growth. The live weight of lambs in this group was 5.6 kg, which is 34.1% lower than the control. The live weight gain of lambs in this group was 1.5 times lower than in the control group. This can be explained by the fact that animals with signs of malnutrition lag behind the normal development of the digestive system. At the same time, the food conversion rate shows the most efficient assimilation of food by this group of lambs. Consequently, the experimental results suggest that the difference between the average growth rates in the control and experimental groups is not significant, but a clear weekly subcutaneous injection of tissue preparations indicates a tendency to increase the productivity of lambs.

In the second period of the experiment, complete nutrition of lambs (amount of digestible protein 21.5%) changed the dynamics of lamb growth (Table 2).

Effect of tissue preparations on the growth of full-grown lambs

Table 2

№	Indicators	Control group	experimental group 1*	experimental group 2 **	experimental group 3***
1	Average live weight at the beginning of the experiment, kg	10,7±0,89	11,1±0,84	11,8±0,79	6,8±0,43
2	Average live weight after 14 days of experiment, kg	15,1±1,09	15,1±1,15	16,0±1,35	9,3±0,64
3	Average daily growth, g	316	287	301	180
4	Daily feed consumption g / head	705	550	670	380
5	Conversion of feed to product	2,2	1,9	2,2	2,1

The study results show that the largest increase in live weight was recorded in a 14-day experiment in the control group. Weight gain in the first experimental group was 6.7% lower than in the control group, which was 93.3% compared to the control group. However, in this group, food conversion has the highest rate relative to the product. The gain in live weight was 14% less feed consumption per control unit than in the control group. In experimental group 2 (Tissue preparation from the spleen was used), live weight gain was 3.5% lower than in the control group. In the 3rd experimental group, the average daily growth was 2.2 times higher than in the previous period (in the control group - 2.1 times).

Consequently, tissue preparations have no stimulating effect on the growth of lambs that received a complete diet consisting of mixed fodder. This is because a highly nutritiously balanced diet is a good stimulator of digestive function.

In addition, in our experiments, we performed a general blood analysis of the lambs.

Influence of tissue preparations on blood parameters of lambs

Table 3

Nº	Indicators	Control group	experimental group 1*	experimental group 2 **	experimental group 3***
1	The number of leukocytes	12,3±1,22	13,8±1,17	9,1±1,03	18,1±2,75
2	The number of erythrocytes	7,7±0,07	8,3±0,19	8,1±0,19	8,1±0,9
3	Thrombocytlar	414±12,6	476±18,3	462±41,3	434±5,15
4	The amount of hemoglobin	12,9±0,47	13,4±0,61	13,6±0,25	13,4±0,56

As can be seen from this Table 3, immune parameters were highest in hypotrophic lambs, with leukocyte levels increased by 46% compared to the control group. In the second experimental group, in contrast, the number of leukocytes decreased by 25% compared to the control group. This indicates a decrease in the protective function of the blood. The number of erythrocytes indicates the state of metabolic processes in the body. In the first period of the experiment, the live weight gain of the experimental lambs was higher than that of the control group in the first period of the experiment. This is confirmed by the data in the table. In particular, in lambs of the 1st experimental group (using a tissue preparation prepared from the liver), the number of erythrocytes was 8.5% higher than in the control group. In experimental groups 2 and 3, the figures were 6.8% higher than in the control group. Hemoglobin levels were observed to be higher in the experimental groups (3.7, 5.5, 3.7%, respectively) than in the control group. The number of thrombocytes in the experimental groups also exceeded the control values.

Consequently, tissue preparations have a positive effect on the number of erythrocytes and hemoglobin in the body, which indicates increased metabolic processes in the body and leads to an increase in white blood cell count in malnourished lambs, increasing vitality and live weight.

CONCLUSION

1. Tissue preparations have a positive effect on the live weight gain of lambs fed a low-protein diet. In particular, the average daily growth was 6.7-24.1% compared to the control group.

2. Tissue preparations prepared from various organs according to the method of V.P Filatov have a special effect on the body of animals, which lambs have different effects on the growth of live weight.

3. Tissue preparations were fed with a low-protein diet and had a significant effect on the body of lambs with impaired digestive system, the presence of diseases, growth, and led to an increase in the number of erythrocytes and leukocytes, an increase in hemoglobin.

REFERENCE

1. Salimov Y. Veterinary Pharmacology// Methodical guide. Tashkent- 2019.
2. Norboev Q.N, Bakirov B., Eshboriev B.M. Internal non-communicable diseases of animals.// Textbook. Tashkent - 2007
3. Sokolov V.D. Veterinary pharmacology.//Textbook. Saint-Petersburg - 2010
4. Daricheva N.N., Ermolaev V.A. Tissue therapy in veterinary medicine: Monograph. – Ulyanovsk, Ugskha, 2011. – p.168 .
5. Zyubin I.N. Non-specific mastitis of farm animals in Zabaikalsky region: Monograph / И. N. Zyubin, M. F. Zyubina, B. N. Gomoboyev, B. C. Garmaev, R. Z. Siraziev. – Chita, 2015.- p.187.
6. Kholikov A., Khatamov T. The importance of biostimulants in veterinary practice.//Journal of veterinary medicine.№ 2.P.34-35.Tashkent.2021.