

UTILIZATION OF NITROGEN AND MINERAL SUBSTANCES BY THE ORGANISM IN THE CARE OF ROSS-308 BROILER CHICKS WITH THE HELP OF TETRABIOTIC

I. R. Xolbo'tayev¹

Tashkent branch of Samarkand State Veterinary Medicine,
Animal Husbandry and Biotechnology University

A. E. Yangiboyev¹

Tashkent branch of Samarkand State Veterinary Medicine,
Animal Husbandry and Biotechnology University

N. E. Sattorov²

"Tashkent Institute of Irrigation and
Agricultural Mechanization Engineers" National Research University

ANNOTATSIYA

Ushbu tadqiqotlarda ilk bor O'zbekiston sharoitida TERABIOTIK probiotigini ROSS-308 krossli broyler jo'jalarining go'sht mahsuldorligi, o'sish va rivojlanishiga bo'lgan ta'siri o'rganilgan;

TETRABIOTIK probiotigining jo'jalarni parvarishlashda foydalanganda go'sht maxsuldorligi, o'sish va rivojlanish, metabolism, qonning biokimyoviy ko'rsatkichlari, mahsuldorligi, broyler jo'ja go'shti sifat ko'rsatkichlari baholandi;

Probiyotik ROSS 308 broyler jo'jalarining ratsionida TETRABIOTIK probiotigi bilan birgalikda ozuqa moddalarining hazm bo'lishi va ishlatilishiga, energiya almashinuviga, qonning biokimyoviy ko'rsatkichlariga, o'sishi, saqlanishi, go'sht mahsulotlarining sifatiga ta'siri aniqlandi;

Kalit so'zlar: Probiotik, jo'ja, o'sish, tetrabiotik, azot, fosfor, klechatka, ferment.

АННОТАЦИЯ

В данных исследованиях впервые в условиях Узбекистана изучено влияние пробиотика ТЕРАБИОТИК РОСС-308 на мясную продуктивность, рост и развитие цыплят-бройлеров;

При использовании пробиотика ТЕТРАБИОТИК в уходе за цыплятами оценивали мясную продуктивность, рост и развитие, обмен веществ, биохимические показатели крови, продуктивность, показатели качества мяса цыплят-бройлеров;

Пробиотик РОСС 308 в сочетании с пробиотиком ТЕТРАБИОТИК в рационе цыплят-бройлеров оказал влияние на переваримость и использование питательных веществ,

энергетический обмен, биохимические показатели крови, рост, сохранность, качество мясных продуктов;

Ключевые слова: Пробиотик, цыпленок, рост, тетрабиотик, азот, фосфор, клетка, фермент.

ANNOTATION

In these studies, for the first time in the conditions of Uzbekistan, the effect of TERABIOTIC probiotic ROSS-308 on meat productivity, growth and development of broiler chickens was studied;

Meat yield, growth and development, metabolism, blood biochemical indicators, productivity, broiler chicken meat quality indicators were evaluated when TETRABIOTIC probiotic was used in the care of chickens;

Probiotic ROSS 308 combined with TETRABIOTIC probiotic in the diet of broiler chickens had an effect on digestibility and utilization of nutrients, energy metabolism, biochemical indicators of blood, growth, preservation, quality of meat products;

Key words: Probiotic, chick, growth, tetrabirotic, nitrogen, phosphorus, cell, enzyme.

Asosiy izlanishlar: Growth, development indicators and chemical composition of meat of broiler chicks under conditions of combined care were analyzed; Quality indicators of broiler chicken meat, morphometric condition of internal organs and levels of coverage of consumed feed with products were determined; The relationship between growth and development and meat productivity in combined care was analyzed and economic efficiency was determined.

INTRODUCTION

When feeding broiler chicks, it is important to pay special attention to the first week of life, during which chicks are less likely to adapt to the environment and encounter various stress factors. everyone knows that the enzymatic system of the digestive tract begins to form in chicks on the 7-10th day of life. During the first 2-3 days, the chick receives most of its nutrients and energy from the yolk residue. during this period, it is advisable to use recipes based on corn, wheat and soybeans, which contain easily digestible nutrients and are ground to a diameter of 0.9-1.2 mm. the main problem faced is the shortage, high price and low quality of certain feed products. .for this reason, initial feed recipes have been developed that stimulate the development of the gastrointestinal tract, the formation and strengthening of immunity; in the first hours after hatching, to increase the metabolism in the body of the chick, the early development of its enzymatic system helps to form.

MATERIALS AND METHODS

Research object: The main objects of this research work are recommended probiotics to reduce oxidative stress of broiler chickens and return productivity to appropriate values. the feasibility of using probiotics to increase productivity, meat quality and viability in feeding broiler chickens was justified. The results of the dissertation were realized with Ross-308 broiler chicks available at the farm of "Tojdor Golden Chicken" LLC, located in Shahrissabz District, Kashkadarya Region.

Subject of research. Feeding, storage and productivity with the help of probiotics have effects on meat quality, health, and morphometric indicators.

Research methods. In the study of the research issues, general zootechnical methods were studied: care, feeding, watering of broiler chicks, meat productivity and its quality, daily live weight dynamics, feed digestibility coefficients.

During the experiment, broiler chicks were kept on thick beds on the ground in a poultry farm, with strict control of light day length, provided that feeding was properly organized, and the microclimate of the poultry house was maintained under strict control.

Placement of field experiments, calculations and observations, "Principle of similar analogues", "Method of similar groups", "Methods of conducting scientific experiments in animal husbandry and poultry and methods of processing their results in biometric, statistical methods" (2023) methodological manual was carried out on the basis of., and economic efficiency N.a. It was carried out based on the Baranov method

RESULTS AND DISCUSSION

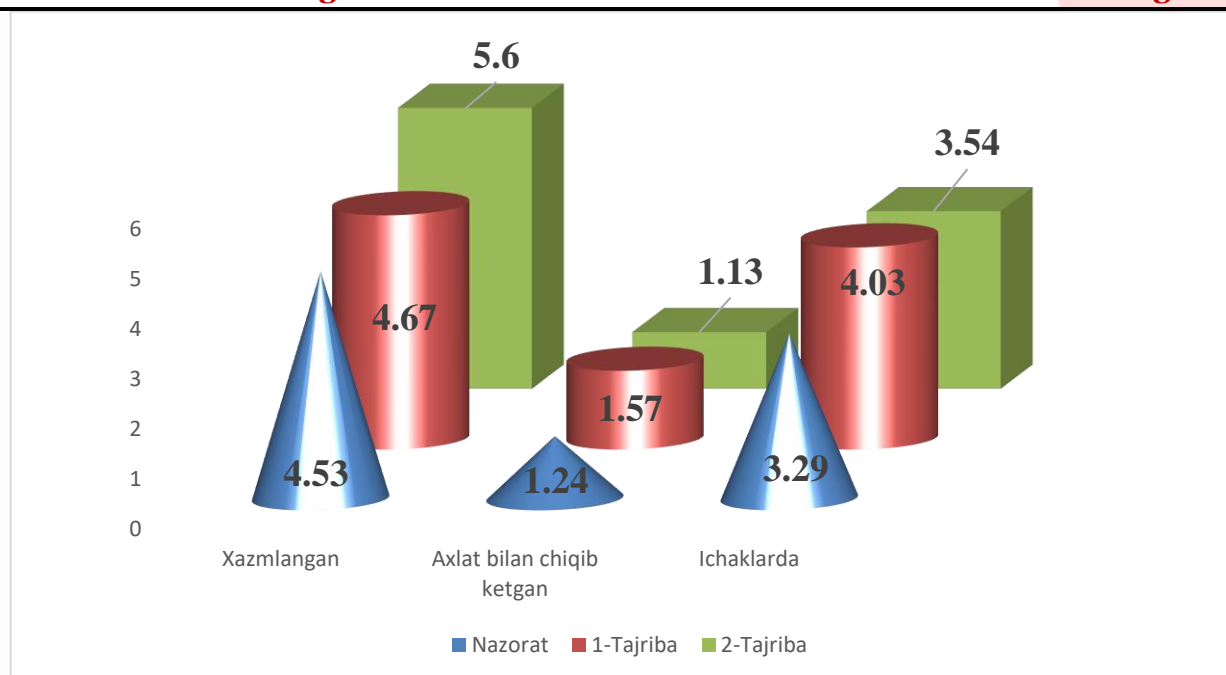
3.1.4 Nitrogen and mineral exchange

Metabolism and assimilation indicators of feed nitrogen are important to determine the effect of various nutritional factors on the general metabolism of the lower organs.

Were characteristic of the traits we established in energy use and nitrogen metabolism by experienced broilers. This was determined by the level of nitrogen supply to the body of broilers with food and the subsequent process of plastic metabolic processes (table. 3.1.4.1).

Table 3.1.4.1 nitrogen balance of test chickens (age), gm/head/day

Indicator	Groups		
	Control	1 experience	Experiment 2
Digested (gm)	4,53±0,11	4,67±0,10	5,6±0,08
Out with the trash	1,24±0,09	1,57±0,09	1,13±0,13
Stuck in the intestines	3,29±0,08	4,03±0,11	3,54±0,07
accepted, % used	72,6±0,12	71,9±0,10	75,8±0,10

**Diagram 3.1.4.1**

Thus, according to the results of the research, it was noted that the second group of broilers increased the nitrogen digestibility index and delivered nitrogen to their bodies. the difference in this indicator was 19.1% higher than the control group, and 16.6% higher than the second group. in the first group, a high level of nitrogen supply with food increased its secretion with feces - 1.57 g/head/day, exceeding the similar numerical indicator of the control group - by 21% ($p < 0.05$), and the result was higher than the second group by 28% ($p < 0.05$).

At the same time, the use of probiotics in the diet at a volume of 0.5% increases the retention of this element in the intestines by 7% compared to the control group, and a 13.8% lower indicator was recorded compared to the first group ($p < 0.05$). Analyzing the nitrogen balance in the body of experimental chicks, we note that its largest absorption by the body was recorded in the body of the second group of experimental chicks - 5.6 g/head/day. at the same time, the difference compared to the group that illuminated the usual prescription was 19.1% ($p < 0.05$), and the result was 16.6% higher than the first experimental group.

After all, the chicks of the second group (75.8%) are the most efficient of the received feed nitrogen.

In the course of our studies on the evaluation of the exchange of chemical elements, a balance experiment was conducted to study the exchange of calcium and phosphorus in the body of an experimental chick, taking into account feeding factors.

Calculation of calcium balance presented in table 3.1.4.2 showed that it is high. food supply affected digestion in the chick's body

Table 3.1.4.2 calcium balance of the experimental chicken, g / head / day

Indicator	Groups		
	Control	Experiment 1	Experiment 2
Intake (gm)	0,9	0,9	0,9
Digested (gm)	0,50±0,03	0,60±0,08	0,63±0,05
Excreted with feces (gm)	0,29±0,07	0,22±0,05	0,13±0,11
Retained in intestines (gm)	0,11±0,09	0,08±0,07	0,14±0,08
Digestibility, %	56,6±0,09	67,7±0,11	71,1±0,10

3.1.4.2:1 diagram

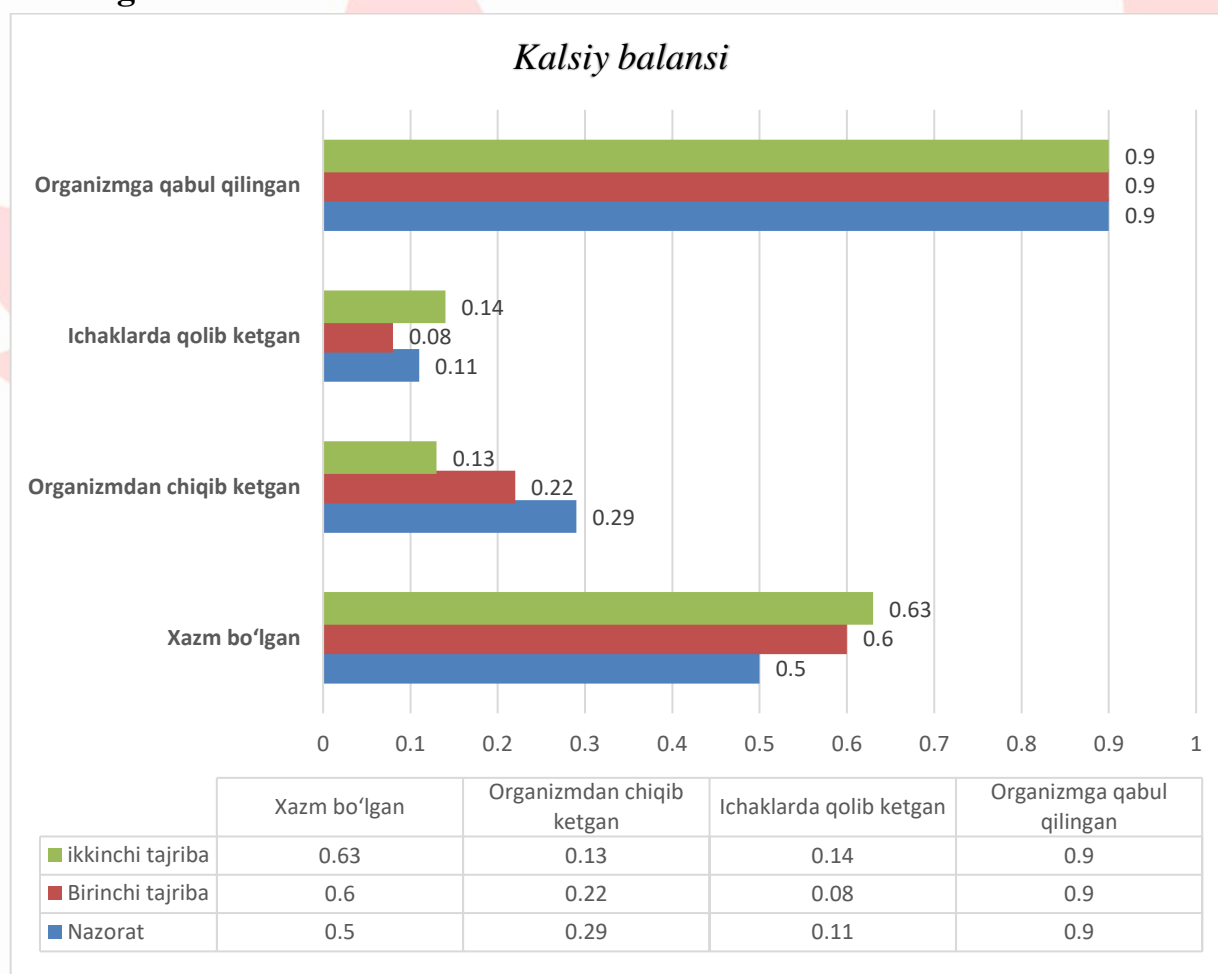
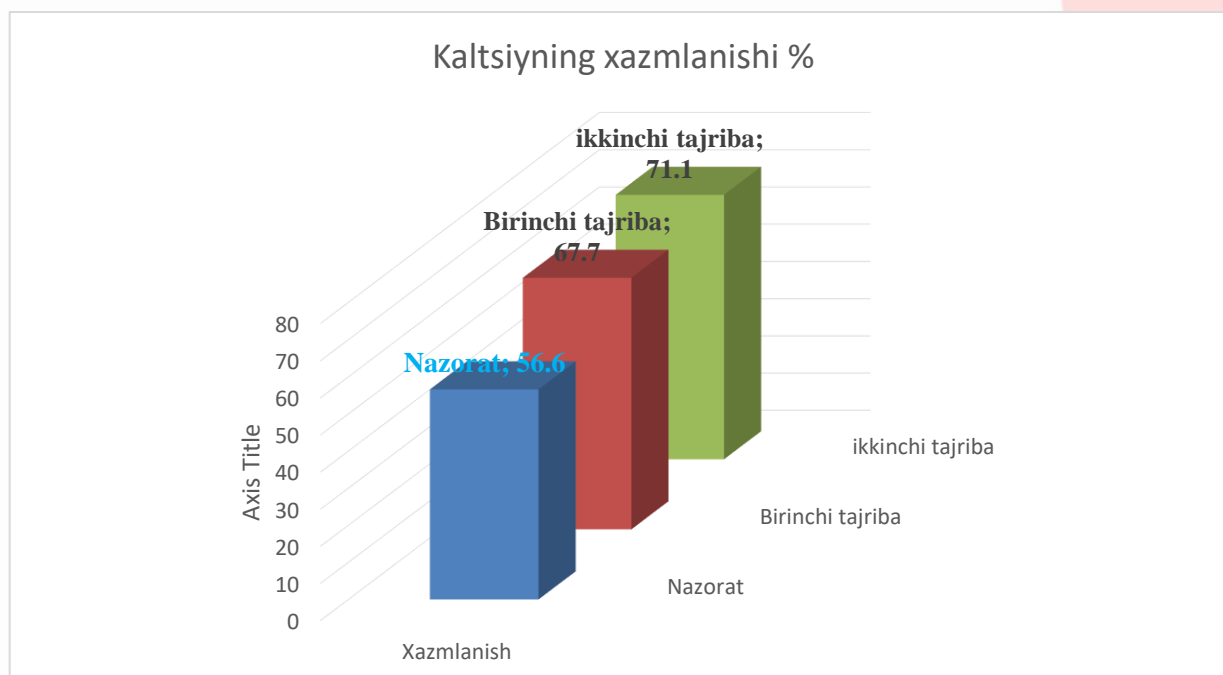


Diagram 3.1.4.2:2



0.5% use of Probiotic in feeding chicks increased calcium digestibility. For example, in the second group, the difference compared to the control group was 14.5% ($p < 0.05$), and compared to the first group, the level of digestion was 3.4% higher.

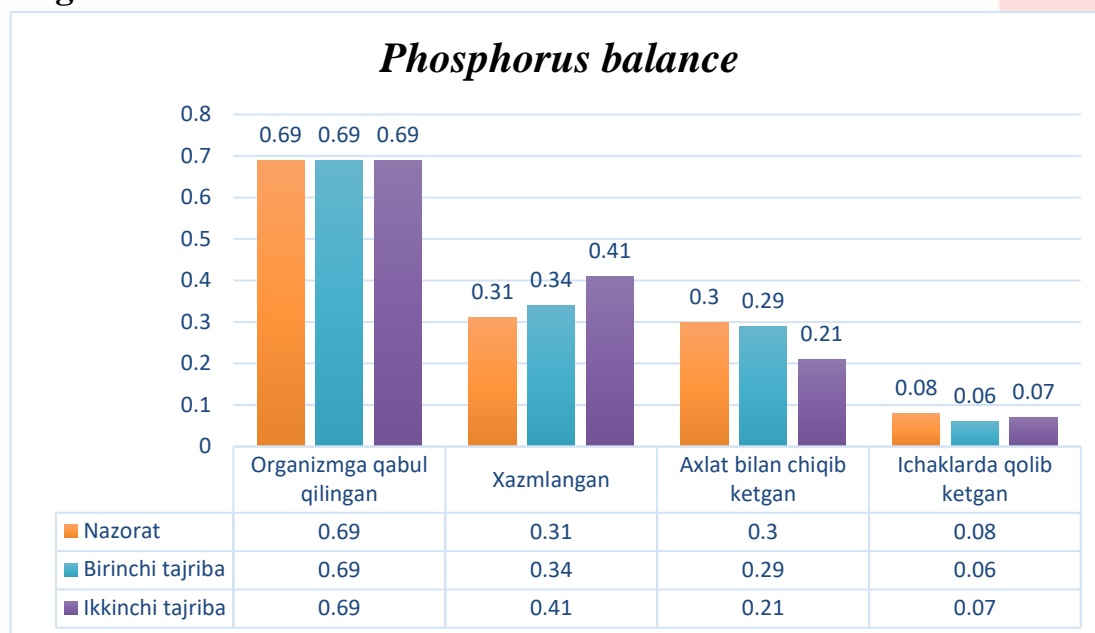
The biggest influence on calcium excretion in the feces is the feeding of probiotic food. The difference between the second experimental group, the control and the first group chickens for this indicator was 55.1% and 24.1%, respectively, the best indicator was recorded in the second experimental group ($p < 0.05$).

The most effective calcium feed was used by the chicks of the second group, where the body digestibility of the experimental chick was 0.63 g/g per day, which was 0.13 gm higher than the similar values of the control group ($p < 0.05$). and increased by 0.03 gm from the first group. The efficiency of use of the received was high in the first and second groups, it was 67.7 and 71.1%, respectively).

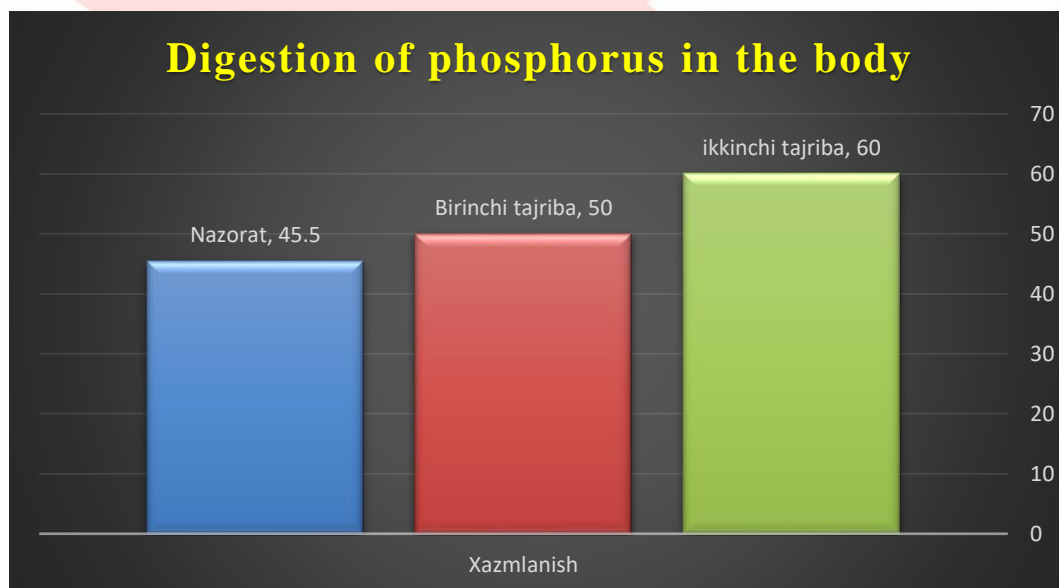
According to the results of the experiment, it was found that the high amount of phosphorus with food was observed in the first and second groups 0.98-0.08 g/head/day, which is 27.3-3.8% higher than the control (table-3.1.4.3).

Table 3.1.4.3 Phosphorus balance of experimental chicks (age), g/head/day

Indicator	Groups		
	Control	Experiment 1	Experiment 2
Taken with food (gm)	0,69±0,06	0,69±0,10	0,69±0,09
Digested gm	0.31±0.003	0.34±0.005	0.41±0.004
The gm that went out with the garbage	0,30±0,07	0,29±0,08	0,21±0,07
Stuck in the intestines gm	0,08±0,002	0,06±0,004	0,07±0,002
Digestibility, %	45,45±0,11	50,0±0,13	60,0±0,09

3.1.4.3:1 diagram

The biggest influence on the excretion of phosphorus in feces is the factor of feeding with probiotic 0.5% feed. In the experimental chicken of this group, its excretion was 16.6 and 53.1% higher than in the control and analogues of the first group. calculation of the phosphorus balance showed that the use of its intake was more effective in broilers of the second group - 60.0%, 10.0-14.5% higher than the similar values of the other groups.

Diagram 3.1.4.3.2**CONCLUSIONS**

1. TETRABIOTIC probiotic increases the digestibility of protein and fiber by 1.6 and 3.85%, respectively, increases clean energy by 5.9%, nitrogen, calcium and phosphorus use by 3.2%

in the production of broiler chickens; was 5.2 and 14.55%, respectively. this ensures that giving this probiotic to broiler chicks in the conditions of Uzbekistan will give a positive result

2. In order to increase the live weight, viability and slaughter yield of broiler chicks, we recommend adding Probiotic 0.5% to the standard diet together.

3. Another suggestion of mine is that feeding the birds with Probiotic supplements during the feeding process will ensure that they do not need to use antibiotics in the later period of their life. Then it is enough to use the IBK vaccine.

LITERATURE

1. Decree of the President of the Republic of Uzbekistan No. PQ-5146 of June 14, 2021 on additional measures aimed at the development of poultry farming and strengthening of the network feed base. <https://lex.uz/docs/-5457613?ONDATE=15.06.2021%2000>
2. Ibadullaeva G.B. The effect of probiotics and antioxidants on the productivity of broiler chickens / Ibadullaeva G.B., Semenyutin V.V. Stabilization of the development of the agro-industrial complex in modern conditions and ways to get out of the crisis: the summary of the report is an international, scientific and practical conference, young scientists and specialists. - Voronezh, 1999. - pp. 147-148..
3. Sidorov M.A. Normal microflora of animals and its correction with probiotics / Sidorov M.A., Subbotin V.V., Danilevskaya N.V. // Veterinary medicine. - 2000. - No. 11. - P. 17-22..
4. Ziyoda Sharipova, Bakhtiyor Umarov, Yakub Ziyayev Morphological, physiological and biotechnological characteristics of bifidobacteria <https://medin.uz/index.php/jmi/article/download/112/100> 120-143 pages
5. Sh.N. Nasimov, J.M. Sattorov, Kh.R. Berdiev, etc. Prophylactic effect of local probiotic "Innoprovot" on colibacteriosis and salmonellosis in broiler chickens. Journal of Veterinary Medicine Special Issue 2. 2023 pp. 155-159..
6. Andreeva A.V., Nikolaeva O.N., Muristaya M.L. use of phytoprobiotic compositions based on lactobacilli and medicinal plant raw materials together with micronutrient salts for the prevention of gastrointestinal diseases in newborn calves and weaned pigs / Republic of Agriculture Recommendations approved by the Scientific and Technical Council of the Ministry of Belarus. 2009. 16 p..
7. A.N. Panin, Serikh N.I., Malik E.V. Increasing the effectiveness of probiotic therapy in pigs // Veterinaria. 1996. Number 3. Pages 17-22
8. Preparations for birds "Azilakt-IK" and "Avinorm-3" - biopharma complexes based on probiotics and biologically active additives / Kovalskaya L.A., Sazanova E.Ya., Kalugin S.V. and others // Scientific basis of production of veterinary biological preparations. - Shchelkovo, 2000. - P. 345-346.