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EFFECT OF TETRABIOTIC PROBIOTIC ON QUANTITATIVE AND QUALITATIVE INDICATORS OF BROILER CHICKEN MEAT

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Abstract:

In these studies, for the first time in the conditions of Uzbekistan, the effect of TETRABIOTIC probiotic ROSS-308 on the 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. Effect of TETRABIOTIC probiotic on the quality of meat products in the diet of probiotic ROSS 308 broiler chickens was determined.

Keywords:

Meat, fat, carcass weight, carcass yield, category, genetics, chick, experiment, physiological, growth, tetrabiotik.

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. It is known to everyone 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. In 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 cost and low quality of individual 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, it helps to increase the metabolism in the chick's body and the early formation of its enzymatic system.

MATERIALS AND METHODS.

Research object: The main objects of this research work are recommended probiotics to reduce the oxidative stress of broiler chickens and return productivity to appropriate values. The feasibility of using probiotics in feeding broiler chickens to increase productivity, meat quality, and viability was substantiated. The results of the dissertation were carried out with Ross-308 broiler chickens available at the farm of “Tojdor golden chicken” LLC located in Shahrisabz district of Kashkadarya region.

The 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 questions, 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, the broiler chicks were kept in a poultry farm on thick beds on the ground, the length of the light day was strictly controlled, 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 ways of processing their results in biometric, statistical methods» (2023) was carried out on the basis of the methodological manual, and economic efficiency was carried out on the basis of N.A. Baranov's method.

RESULTS AND DISCUSSION.

4.1 Quantitative and qualitative indicators of meat.

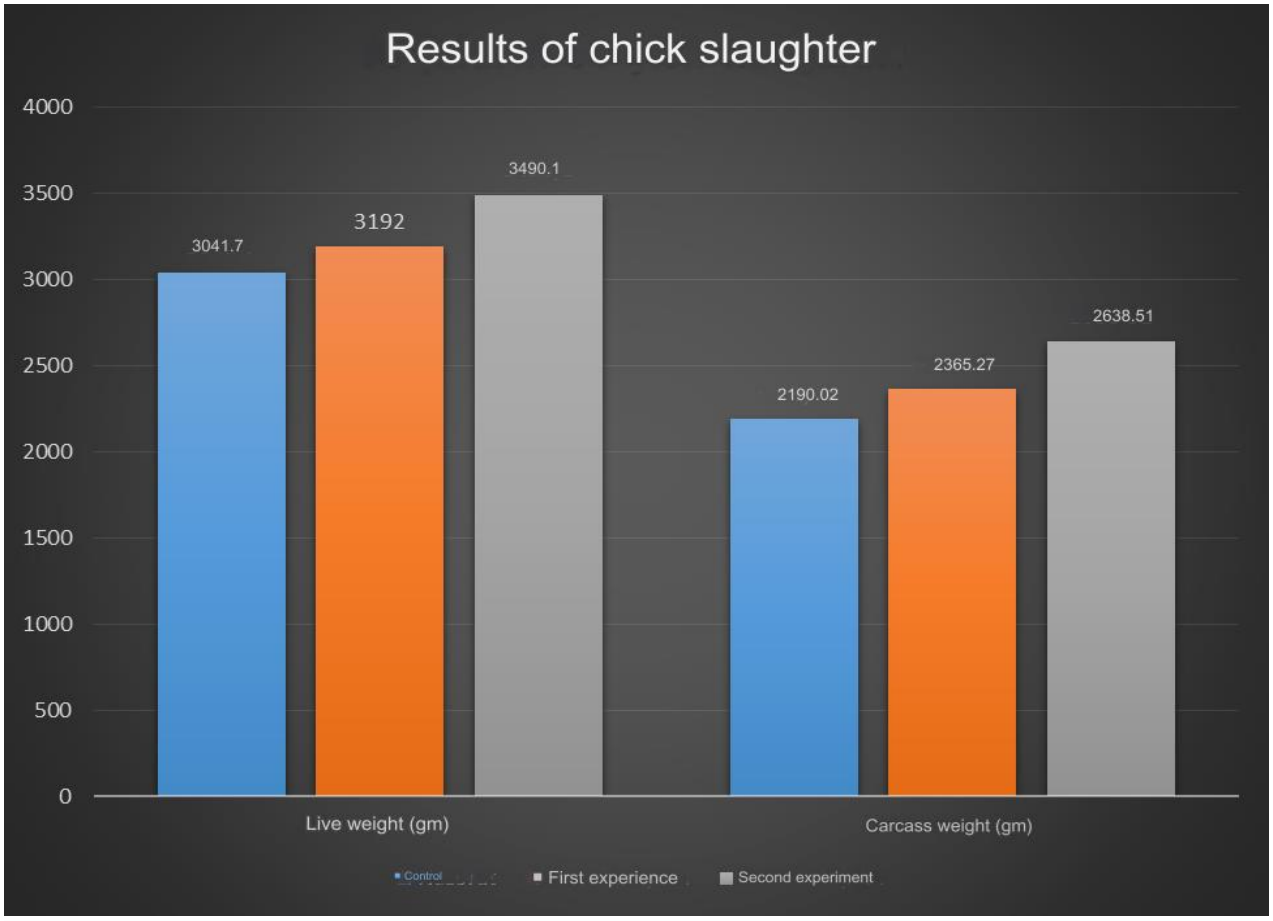
Agricultural chickens in the meat direction of productivity are characterized by high growth energy and by the end of feeding, they increase their original live weight by fifty times. Such a genetic feature allows maximum growth of live weight at 35-42 days of fattening.

Table 4.1.1 - results of slaughtering broiler chickens, (m±W)

Indicators	Groups		
	Control	I experiment (Local probiotic) 0,6%	II experiment (Tetrabiotic) 0,5%
Live weight gm	3041,7±4,99	3192,0±21,49	3490,1±394,15
Carcass weight	2190,02+23,9	2365,27+27,6	2638,51+26,7
Carcass yield	72	74.1	75,6

As can be seen from the table, broiler chicks are in the care process for 1-42 days.

According to the results of slaughtering chickens, it was found that the second experimental group (tetrabiotic 0.5%) exceeded the control by 3.6% and the first experimental group by 1.5% in terms of slaughter yield of gutted carcasses.


Results of chick slaughter
4000
3500
3000
2500
2000
1500
1000
500
0
3041.7
3192
3490.1
2190.02
2365.27
2638.51
Live weight (gm)
Carcass weight (gm)
Control
First experience
Second experiment

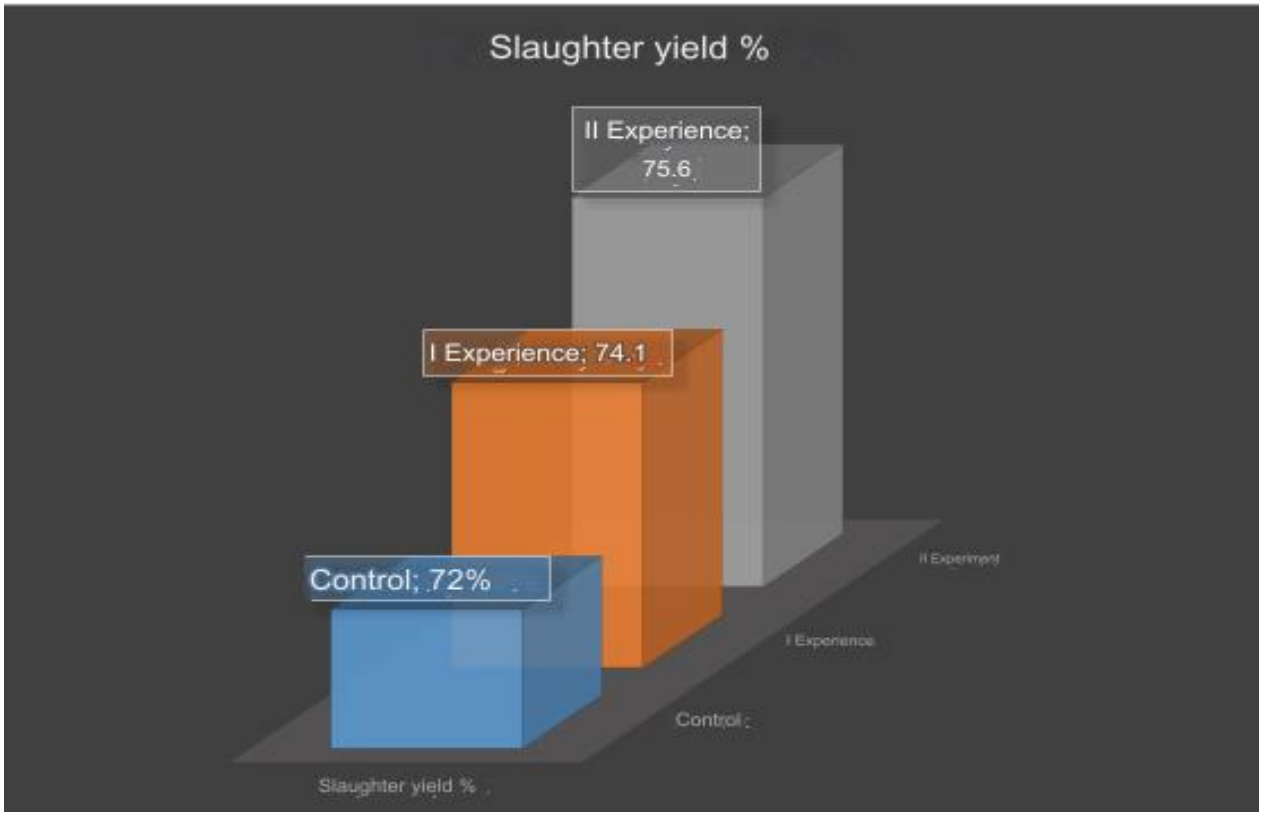

Slaughter yield %
II Experience; 75.6
I Experience; 74.1
Control; 72%
II Experiment
I Experience
Control
Slaughter yield %

Figure 5. General picture of the chicken house

4.2 Evaluation of the carcass category of broiler chickens

Table 4.2.1

Group	Carcass category, %		
	1	2	Non-standard
Control	90,62	7,25	2,13
1experience	93,75	6,25	--—
2 experience	96,83	3,17	——

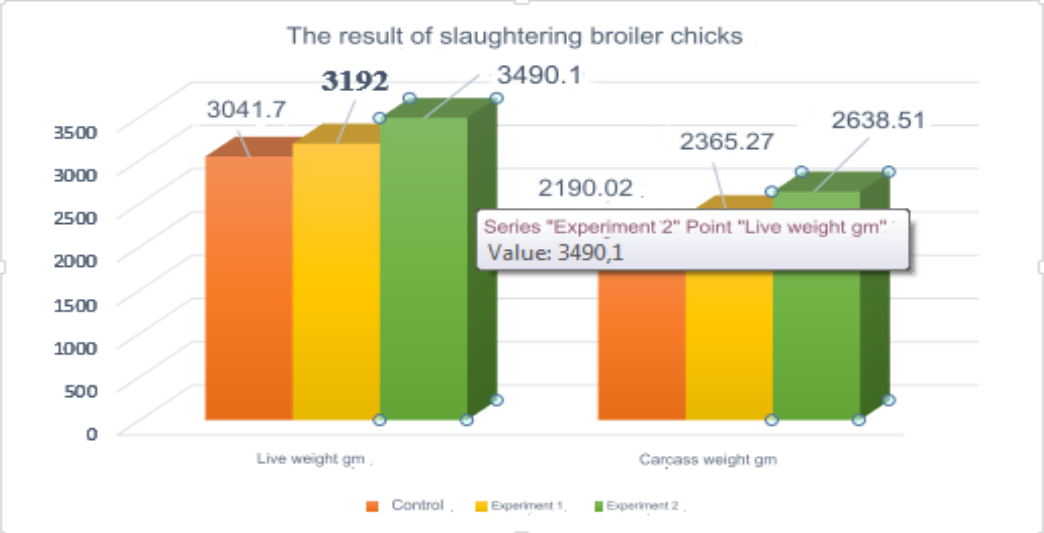
After slaughtering the chickens in the control group, when the carcass meat was evaluated by category, they had 90.62% of 1 type of meat, 7.25% of 2 type of meat, and 2.13% of non-standard meat in this group.

In our experimental group 1, the yield of carcass meat of type 1 was 93.75% and the yield of carcass meat of type 2 was 6.25%.

In our experimental group 2, the yield of carcass meat of type 1 was 96.83%, and the yield of carcass meat of type 2 was 3.17%. There was no substandard carcass.

Non-standard carcasses were recorded only in the control group - 2.13%.

4.2.1 Diagram



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 utilization by 3.2% in the production of broiler chickens increases; 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. To increase live weight, liveability and slaughter yield of broiler chicks, we recommend adding Probiotic 0.5% to the standard diet together.
3. Another suggestion I have is that feeding the birds with Probiotic supplements during the feeding process will ensure that they do not have to use antibiotics later in life. Then it is enough to use the IBK vaccine.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan No. PD-5146 of June 14, 2021 on additional measures aimed at the development of poultry farming and strengthening of the feed industry 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 directions for exiting the crisis: the summary of the report is an international, scientific and practical conference, young scientists and specialists. - Voronezh, 1999. - pp. 147-148.
3. Aliyev, I. M. The effect of the addition of slime bacilli biomass on the growth and development of chickens / I. M. Aliyev // clinical and biochemical research, prevention and treatment of non-infectious animal diseases: Scientific and practical conference. Omsk, 1998. Pages 38-39.

4. Elova N.A., Kutlieva G.J. Nurmuhamedova D.K., Kamalova H.F., Effectiveness of using «Bactovit» probiotic feed additives in growing African catfish. Issue 2 (2022) Prospects for development of veterinary science and its role in ensuring food safety - Part 2. Pp. 319-323.
5. Iben.B. Ferkel früh an festes Futter gewöhnen mit Probiotika Absetzstess besser bewältigen / Iben.B.//DLZ Agrarmag Agrobonus 1999 Ig.50. – N 3.
6. Krikanov A.A. Productivity of broilers when using probiotic «Galliferm» in diet / Krykanov A.A. // Issues of general biology in veterinary medicine: Collection of scientific papers. tr. - M, 2000. - P. 67-69.
7. L. V. Sycheva, Doctor of Agricultural Sciences, Professor of Perm State Technical University. Journal of Veterinary and Animal Husbandry. Use of «Antivir» feed additive in the diet of broiler chickens. Perm Agrarian Bulletin No. 1 (21) 2018 pp. 142-145.
8. Pivnyak I.G. Carotinobacterin - a new probiotic for young birds / Pivnyak I.G., Shaydullina R.G., Zabolotsky V.L. // Zootechnics, 1998. - No. 3. - Pages 14-15.
9. Effect of probiotic microorganisms on body weight, carcass productivity and carcass quality of broiler chickens against antibiotics / Brzoska F., Grzybowski R., Stecka K., Pieszka M. // Annals of Animal Sciences. - Krakow, 1999. - Volume 26. - 4. - B.303 ¬315.
10. Subbotin V.V. Effect of bifacidobacterin on intestinal microflora of pork / Subbotin V.V., Stepanov K.M. // Veterinary medicine. - 1998 - No. 5. - .pages 24-26.
11. Subbotin V.V. Biotechnology of probiotics for veterinary medicine / Subbotin V.V., Sidorov M.A. // Agricultural sciences. - 1998 - No. 3. - Pages 20-21.
12. Tarakanov B.V. Biological effect of probiotics / Tarakanov B.V. // Modern problems of biotechnology and biology of animal productivity: Collection of scientific papers. All-Russian Research Institute of Physiology, Biochemistry and Agricultural Nutrition. animals. - Borovsk, 1999. - T. 38. - P. 78-86.
13. Tarakanov B.V. The microflora of the digestive tract and the mechanism of action of probiotics on the body of animals / Tarakanov B.V. // Veterinary medicine. - 2000. - Issue 1. - Pages 47-54.
14. 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.
15. Пластинина Ю.В /Эффективность применения пробиотиков в птицеводстве / Ученые записки Казанской государственной академии ветеринарной медицины им. Н. Э. Баумана 2022 год 4-том, 147-152 ст.
16. Худайназаров, Ф. (2024). КИЧИК БИЗНЕС СУБЪЕКТЛАРИ ФАОЛИЯТИНИ РИВОЖЛАНТИРИШНИНГ НАЗАРИЙ АСОСЛАРИ. Iqtisodiyot va ta'lim, 25(2), 335-340.
17. Xudoynazarov, F. (2023). ISLOM MOLIYASI–MUAMMOLAR VA YECHIMLAR. Iqtisodiy taraqqiyot va tahlil, 1(8), 109-114.

