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Energy, Nitrogen and Mineral Exchange in the Body of Broiler Chicks

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Abstract: Broiler mineral in nutrition and local probiotic from bacteria use metabolic energy indicators positive effect shows. Food of nitrogen metabolism and assimilation to do indicators different different eating of factors to the metabolism of the body as a whole effect determined.

Keywords: probiotics, nitrogen, energy, storage, minerals, broiler, chicks, live weight, growth and bacteria.

Relevance of the subject. As noted by our honorable president, the rapid development of the poultry sector in our country, the introduction of modern and innovative methods, the increase in the volume of production and the expansion of the types of products, as well as the continuous supply of the population with high-quality and cheap eggs produced in local conditions and nutritious meat products are the main is one of the tasks. Scientific and technical progress in poultry depends on many organizational-economic, informational-methodical, social-psychological and economic factors that determine production efficiency.

In order to ensure food security in our republic, as well as to develop poultry farming and further strengthen the network's feed base, as well as to support business entities in the field of poultry farming:

The Veterinary and Animal Husbandry Development Committee of the Ministry of Investments and Foreign Trade and the "Poultry Industry" association should develop project proposals for attracting foreign investment in the poultry industry within one month and cooperate with business entities in developed foreign countries until January 1, 2022. ensure the implementation of projects in the field of breeding and fodder in the republic. In our country, consistent measures are being taken to develop the poultry sector and to increase the volume and variety of ready-made products for export, as well as to provide the population with locally produced high-quality and cheap poultry products.

there are a number of problems that prevent further rapid development of the sector, including the introduction of modern technologies, modernization of the production process, and expansion of the export of finished poultry products.

Research goals and objectives. The purpose of the thesis is to study the effect of probiotic bacteria strains on the digestibility of broiler chickens as a feed additive. To achieve the goal of the research, the following tasks were defined:

1. Keeping and feeding conditions of broiler chicks and chick room studying the microclimate ;
2. To study the live weight and growth dynamics of broiler chicks during the use of probiotics ;
3. Broiler chickens of probiotics of meat biochemical and mineral content study;

4. When probiotic bacteria are tested in broiler chickens, their metabolism, internal organs and of tissues change study;
5. Broiler chicks mine results and economic efficiency study.

The object of the study : The object of the study is a local probiotic consisting of bacteria belonging to the genera Lactobacillus and Bifidobacterium bacterial nutrient supplement.

Subject of research : broiler chickens in the poultry sector for meat.

Animals in the body happen to be metabolic of processes the most important from the features one this metabolic from energy use efficiency.

Research to the results according to, gross of energy the lowest level Control of the group main ration in feeding that it was was determined. So first _ _ experience group with compared to this the difference is 0.5 MJ or 0.91 %, the second experience group with - 2.4 MJ or 2.4 % organize did _ That's it to emphasize must be local probiotic drug to the ration addition input this the indicator is 99.1 Up to MDj / head to increase help gave _ Control and the first of groups broilers with in comparison 5 ml of probiotic acceptance did experimental chicks and enzyme- Probiotic drug in feeding together use food with gross energy spending suitable 1.9 respectively _ and by 2.4% increased (Table 1.).

Table 1. Experience during broiler in the organism energy balance

Indicators		**Groups**		
		Control	**1 experience**	**2 experiences**
YaE MDj / head		98.6±0.29	99.1±0.36	101, (J), 32
Trash with energy loss, (YaE from) %		30.5	30.8	31.2
Exchanger energy M Dj / head		68.5±0.22	68.6±06	69.5±0.25
Heat work release with energy loss %		54.2	53.7	53.0
Pure energy	MDj / head	15.1±0.12	15.4±0.18	16.0±0.11
	(YaE from) %	15.3	15.5	15.8

Next calculations that's it showed that it is rubbish with energy the loss of eating factors looking difference does _ With that together, gross to calculations according to them to the ration local probiotic of bacteria in a volume of 5 ml one to the head to water including 31.2 percent, local probiotic of bacteria addition as a volume of 2 ml adding 30.8 percent when used organize did _

Broiler mineral in nutrition and local probiotic from bacteria use metabolic energy indicators positive effect showed. Control group experience to the group addition of probiotic 2 ml in the body metabolic energy value of 68.6 MJ _ increased this _ control of the group similar by 0.14% of their values increased _ With that together with Probiotic 5 ml supplement the addition of this value up to 69.5 MDj /head increased this _ another to groups compared to 1.3-1.4 percent high _

Heat work release with energy losses control experience in the group the most important became - ration gross 54.2 % of its energy. For now this the first of the group similar by 0.5 % of the value, the second to 1.7% of the group increased _

Pure of energy the most big value the third group in chickens work stored in the release -16.0 MJ, this the first of the group similar from the indicator high - 5.9%, second group - 3.9%. group efficiency let's go gross energy indicators, then all it is 0.3-0.5% difference in groups with almost one different was _

Nitrogen and minerals exchange _ Food of nitrogen metabolism and assimilation to do indicators different different eating of factors in general organ- lower metabolism effect determination for important _

Experienced broilers by from energy in use we installed features and nitrogen exchange for characteristic was _ These are broilers to the body food with nitrogen delivered to give level and plastic metabolism of processes next process with was determined (Table 2).

Table 2. Chicks nitrogen balance (age), g/head/ day

Indicator	Groups		
	Control	1 experience	Experiment 2
Foods with acceptance done	4.63±0.11	4.6 ±0.08	4.67±0.10
Trash with out gone	1.24±0.09	1.57±0.09	1.13±0.13
Digestion delayed	3.29±0.08	4.03±0.11	3.54±0.07
Acceptance of those made used, %	5 5, 2 ±0.12	67.9±0.10	7 6, 8±0,10

So doing research _ to the results according to the first group broilers by food with food of substances increase and their to the body nitrogen delivered to be given note done _ This indicator according to difference second experience group control to the group compared to 21.4 %, the first experience to the group compared to 9.1 % organize did _

Second experience in the group nutrients with of nitrogen high level to be provided his secretion garbage with increased. 1.6 g /cap/day per day, control of the group while increased left - by 26.6% ($p<0.05$), the first experience - by 38.9% ($p<0.05$).

With that together, in the ratio local probiotic of bacteria in a volume of 5 ml use this of the element control to the group relatively garbage with allocation of 8.9% to the first relatively and by 28.0% decreased ($p<0.05$).

Conclusion. In experience of chicks in the body nitrogen balance analysis so, his the most high digestion indicator second group experience of chicks in the body note done we emphasize - 4.03 g/head/ day per day. With that together, control to the group relatively the difference is 22.5 % ($p<0.05$), the first experience from the group and 13.8 % organize did _

Local probiotic bacteria 2-5 ml/ head experience chicks feed as well as control to the group relatively nitrogen by 7.6 % _ to increase take came _

As a result, the second control group chicks (75.8 %) are accepted done food from nitrogen the most efficient is considered Second experience in the group, the rest with comparison on, this the indicator was lower by 0.7-3.9 %, but nutrients with big in quantity consumption because of his to the body absorption high it has been.

Table 3. Economic efficiency of the experiment

T/r	Indicators	Groups		
		Control	Experiment 1	Experiment 2
1	Initial head number of chicks	100	100	100
2	Number of heads at the end of the experiment	95	98	98
3	Initial (1 day) live mass, g	39	39	39
4	Live weight at 35 days, g	2768	3036	3206
5	Absolute growth from 1 head chick, 1 g	2729	2997	3167
6	Live mass of meat grown by groups, kg	279.53	297.53	314.19
7	Slaughter yield by groups, %	72	73.5	81.8
8	Meat in slaughter weight grown by groups, kg	148.96	225.89	276.75
9	the cost of 1 kg of meat is 15,370 soums, the total cost of grown meat, soums	2289515	2789515	2939515
10	the purchase price of 1 kg of meat is 22,600 soums, then the profit from the sale of cultivated meat, soums	3366496	4698314	6254550
11	Net profit by groups, soums	1076981	1908799	3312035
12	**Rate of return, %**	**32**	**40.6**	**53**

Therefore, the control group broiler chicks during the period of growth up to 3 5 days of probiotic If we look at the effectiveness of the use of bacteria, it is known that the yield rate was 32 % in the chickens in the control group fed on the farm ration, while the probiotic in the ration Experiment 1 with bacteria in the group 2 ml of probiotics in the diet the rate of profitability in chickens with bacteria is 40.6 % and 5 ml probiotic in the diet of experimental group 2 in chickens with bacteria, the yield rate was equal to 53 %

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