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PRODUCTIVITY AND HAEMATOLOGICAL PARAMETERS of QUAIL FOR ACTIONS of PROBIOTIC "ENTERO-ACTIV"

It is set researches, that additional introduction of feed addition a "Entero-aktiv" in the ration of quail promotes living mass and increases of bird. The charges of feed diminish thus. Consumption of probiotic quails increases metabolism of proteins, carbohydrates by increasing glucose and mineral metabolism - by increasing calcium content in the blood.

Keywords: *quail, probiotic, nutrition, performance, hematological parameters.*

It is known that the receipt of maximal products of stock-raising is provided by high genetic potential and balanced feeding with the use of different forage additions.

In recent years, domestic and foreign scientists have focused on the use of supplements that do not accumulate in tissues and animal products and are safe for human nutrition. Search for a new generation of feed additives due to the rejection of the use of antibiotics and hormones - growth promoters - in the European Union, because they have the ability to accumulate in animal products, so scientists and experts prefer natural supplements including: vitamins, enzymes, amino acids, acidulent, fitobiotykam, prebiotics, probiotics, etc [1, p. 477].

Among feed additives of natural origin have become widespread - probiotics. They create an unfavorable pH environment for pathogenic and conditionally pathogenic microflora, stimulating growth and biological activity of the normal intestinal microflora,

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which has a positive impact on the composition of the microbiota, in addition, probiotic microorganisms producing biologically active substances and amino acids [2, s. 20]..

Thus, the goal of the research was to examine the effectiveness of probiotic supplements impact on performance and blood parameters quail.

Material and methods research. Studies were conducted in the research farm of Vinnytsia National Agrarian University. To do this, the principle of group-analogues were formed four groups daily quail meat breed "Pharaoh" by 50 goals each. The experiment lasted 56 days. Quail kept in group cages with zoohygienic compliance requirements. Control groups were fed the basic diet (OR) - complete feed. Research groups in addition to the full-feed additive injected under study (Table 1).

The intensity of the growth of chickens were determined weekly by weighing, which was performed in the morning before feeding. According to the results calculated absolute, relative and average daily live weight gain [3].

After completion of the experiment were carried out assessment of physiological state quail with the definition of morphological and biochemical parameters of blood. This from each group were selected for 4 animals in which the morning before feeding, blood was taken [4]. Biometric data processing was performed on a PC by M. Plohinskym [5].

The results of the mean values was considered statistically significant at * P <0.05, ** P <0.01, *** P <0.001.

Table 1

Group	Number of animals in the group goal.	Duration, days	Features feeding		
			Age quail, days		
			1 - 10	11 - 28	29 - 56
1– control	50	56	OR (complete feed)		
2 – research	50	56	OP+0,062% «Entero-activ» to feed the masses	OP+0,025% «Entero-activ» to feed the masses	OP+0,0125 % «Entero-activ» to feed the masses
3 – research	50	56	OP+0,125% «Entero-activ» to feed the masses	OP+0,05% «Entero-activ» to feed the masses	OP+0,025% «Entero-activ» to feed the masses
4 – research	50	56	OP+0,25% «Entero-activ» to feed the masses	OP+0,1% «Entero-activ» to feed the masses	OP+0,05% «Entero-activ» to feed the masses

Studies. Found that during the study quail, which consumed animal feed probiotic supplements "Enter-asset" had the advantage of live weight compared with control counterparts (Fig. 1).

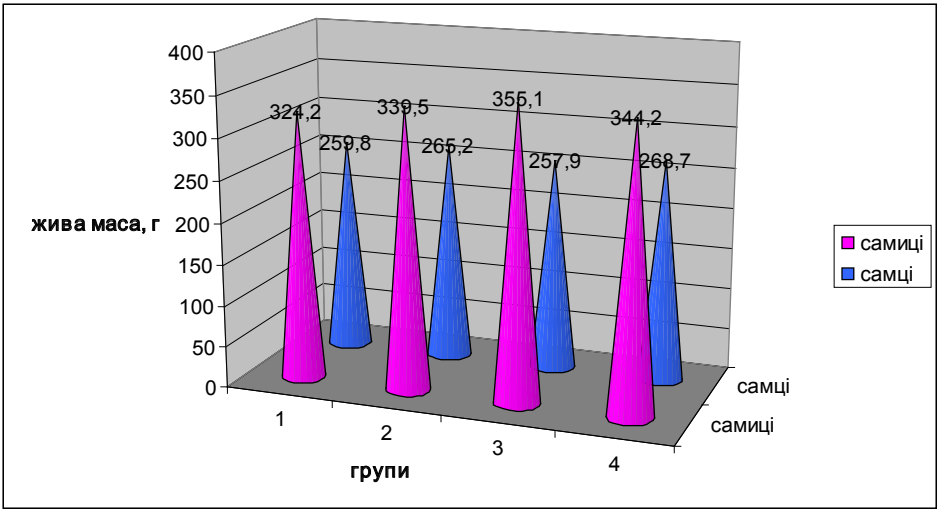

Fig.1.Live weight of quail at the end of the experiment, g

By the end of the research period kept increasing intensity of growth processes of animals. So, at the end of the experiment (56 days), the bird, which fed probiotic supplements, dominated by live weight, particularly females by 4.7% ($P < 0.01$) in group 2, 9.5% ($P < 0.001$) in the 3rd group and 6.1% ($P < 0.01$) in the 4th group. However, the greatest live weight among males was 4-and group - 3.4% ($P < 0.05$) compared with control.

Under the influence of additives on average, the highest average daily gain was observed in females of group 3 by 10.9%, and among males in the 2 nd and 4 th groups increase was at the same level, which is 4.5% more than in the control group. This reduces the cost of feed per 1 kg increase by 6.4%.

It is known that the total blood picture dependent metabolic processes in the body, which largely determines the performance of animals (Fig. 2).

Rice. 2. Biochemical blood parameters quail

It is shown that the action of probiotic supplements in poultry 4th experimental group tended to increase total protein of blood plasma at 7.6%, the content of albumin and globulins increased respectively by 4.3 and 23.2%, although significant differences compared of the benchmark were observed.

It should be noted that under the influence of probiotic preparation in the 4th group, an increase of glucose in the blood by 25.4%, which is used for the synthesis of glycogen, lipids and are a source of chemical energy, so you can say about strengthening the body's metabolism, which in turn facilitate better performance.

These data allow us to conclude that the changes of biochemical and morphological parameters of blood poultry of study drug were within physiological norms.

CONCLUSIONS:

1. Found that consumption of probiotic "Enter-asset" quails increases live weight of females was 9.5% and 3.4% of males compared with controls.

2. Use of probiotic highest average daily gain was observed in females at 10.9%, and among males is 4.5% more than in the control group. However, the reduced cost of feed per 1 kg increase by 6.4%.

3. Additional feeding of probiotic supplements quail enhances total protein content of blood plasma at 7.6%, 4.3% albumin and globulins by 23.2%, 25.4% glucose and calcium by 16.0% compared to the benchmarks.

Literature:

1. Fuller R Probiotics and prebiotics: microtlora management for improved gut health / R. Fuller G.R. Gibson // Clin Microbiol Infect. – 1998. – V.4.– P. 477 – 480.

2. Kravtsiv R. J. Current views on the formation and use of probiotics / R. J. Kravtsiv, J.R. Kravtsiv, R.P. Maslyanko / / Effective food and nutrition. - 2009. - № 5. - S. 20 - 22.

3. Kononenko V. K. workshop on the basics of research in animal / V. K. Kononenko, I. Ibatullin, V. S. Patrobas. - K. - 2000. - S. 38 - 40.

4. Kozyr V. S. Practical methods of research in animal husbandry / V. S. Kozyr, A. I. Svezhentsov. - DA: Art - Press, 2002. - 354 p.

5. Plohynskyy N. A. Guide to byometryy for zootehnykov / N. A. Plohynskyy. - M.: Kolos. 1969. - 352 p.