The effectiveness of bioresonance technology in growing chickens

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Currently, methods have been proposed for the impact of physical factors on animals to activate biological processes and increase productivity. They are based on the fact that physiological processes occurring in a living organism are accompanied by electromagnetic phenomena. Metabolism control by targeted exposure to magnetic-electric fields belongs to the category of bioinformation technologies.

The IMEDIS Center (Moscow) has developed and is producing an apparatus for BRT, which allows transferring the properties of a biologically active substance onto a carrier.

Research A.G. Avakova, B.V. Khorina et al. Found that the use of bioresonance technology based on the IMEDIS apparatus contributes to an increase in the productivity of broiler chickens, when using electromagnetic frequencies of insulin, drugs and other biologically active substances as a matrix of the initial preparation [1]. It was of interest to test the effect of bioresonance technology in the study of essential amino acids as a matrix, in particular, threonine, as well as some neuropeptides and neurotransmitters.

Research methodology

Two experiments were carried out. The first experiment was carried out on 10 groups of day-old egg chickens of the UK Kuban 423 cross, 15 heads each, selected by the analog method. In the preliminary period, chickens of all groups received the same compound feed for 7 days, balanced in accordance with the VNITIP-2003 nutritional standards. After the preliminary period, chickens at 7 days of age were transferred to experimental diets: group 1 (control) - the main diet, which consisted of wheat grain enriched with vitamins, macro- and microelements (Table 2). Water was supplied to the drinking bowls with ordinary tap water.

Experiment scheme No. 1

Group no.	Qty chickens	The diet	Water	The matrix
one	fifteen	Mono-wheat diet + AA (threonine deficiency - 50%)	Regular	-
2	fifteen	Also	Bioresonance	Water
3	fifteen	Also	Bioresonance	Threonine
4	fifteen	Also	Water solution threonine	-
five	fifteen	Mono-wheat ration + NAC (threonine up to 100%)	Regular	-
6	fifteen	Also	Bioresonance	Water

Group 1 received a mono-wheat diet + missing amino acids up to 100% of the need, with the exception of threonine, the amount of which was 50% of the norm, tap water; Group 2 received a diet of group 1, bioresonance water (matrix - water); Group 3 - diet of group 1, bioresonance water (matrix - threonine); Group 4 - ration of group 1; 0.5% threonine solution in ordinary water; Group 5 - group 1 diet + all essential amino acids, including threonine up to 100% of the norm (adjusted diet), tap water; Group 6 - diet of group 5, but bioresonance water (matrix - water). The experiment on chickens began on July 10, and ended on July 28, 2008. Bioresonance technology was carried out using the Transfer-A apparatus of the IMEDIS Center.

Table 1

The composition of the experimental diet

Components	% by weight
Wheat	82.0
Sunflower oil	2.5
Tricalcium phosphate	3.0
Micronutrient premix Vetallas Euroved Vitamin	0.1
premix Vetallas Euroved Antioxidant	0.1
	0.015
Flavomycin	0.006
Roxazim G-2	0.012
Sodium chloride	0,4
Threonine Free Amino Acid Blend	11.9
Contained	
Metabolic energy, kcal / 100 g	320.0
Crude protein,%	19.8
Crude fiber,%	2.5
Calcium,%	1.0
Total phosphorus,%	
accessible, %	0.68
0.42	
Sodium,%	0.18
Chlorine,%	0.24
Essential amino acids, g / kg	
Lysine	10.5
Methionine + cystine	7.5
Threonine	3.1
Tryptophan	2.0
Arginine	11.7
Glycine + Serine	8.7
Histidine	3.4
Isoleucine	7.0
Leucine	14.0
Phenylalanine + Tyrosine	12.0
Valine	8.0

Note: Additives of crystalline preparations of essential and nonessential L-amino acids in the adjusted diet, g / kg feed: lysine HCl (98%) - 10.5; DL-methionine - 3.0; cystine 3.0; threonine (98%) - 5.8; tryptophan - 1.3; arginine HCl * H_2O - 9.5; glycine + serine - 2.2; histidine HCl - 3.4; isoleucine - 6.2; leucine - 10.4; phenylalanine + tyrosine - 7.6; Valine - 6.1; glutamic acid - 18.0; proline - 10.0; alanine - 10.0; asparagine - 18.0; (amount 125.0).

The second experiment was carried out on 6 groups of 6-day-old broiler chickens of the SK-Rus 4 cross, 12 heads per group. For 6 days, day-old chickens were fed with starter compound feed purchased from Vita-Line LLC, Dinskoy district. The same compound feed was used in the next 14 days of the experimental period.

Group 1 received standard feed for broiler chickens (1–20 days), ordinary tap water, group 2 - the same diet, but bioresonance water (matrix - water), group 3 - the same diet, but as bioresonance matrices used a solution of neuropeptide Y (NPY), which, according to a number of studies, is an appetite stimulant, group 4 - the neurotransmitter epinephrine was used as a bioresonance matrix. There is evidence that epinephrine affects the neurons of the reticular formation and the hypothalamus, initiating endocrine functions. The chickens of the 5th group drank bioresonance water, where the matrix was taurine, which is also considered a neurotransmitter, the 6th group - the same diet + 0.5% crystalline taurine mixed with food, ordinary water. Maintenance and feeding, the studied parameters were the same as in the first experiment.

Experiment scheme No. 2

No. group	Qty chickens	The diet	Water	The matrix
one	12	Standard compound feed	Regular	-
2	12	Standard compound feed	Bioresonance	Water
3	12	Standard compound feed	Bioresonance	Neuropeptide Y (NPY)
4	12	Standard compound feed	Bioresonance	Neurotransmitter epinephrine
five	12	Standard compound feed	Bioresonance	Neurotransmitter taurine
6	12	The same + 0.5% taurine	Regular	-

Studied indicators:

- feed consumption by daily recording of given feed and residues;
- average daily gain by individual weighing at the beginning of the experiment and after 14 days;
- timing of the behavior of chickens (time of feed consumption, movements in the cage, sleep) throughout daylight hours for 2, 7 and 14 days;
- hematological blood parameters (number of corpuscles, protein, etc.);
- the composition of the carcass (water, protein, fat).

results

table 2

Feed consumption and chick gains

Groups	one	2	3	4	five	6
Indicators	Deficit threonine 50 %, water common (the control)	Diet 1 gr., water bioresonance	Diet 1 gr., water bioresonance, the matrix-threonine	Diet 1 gr., water 0.5% solution threonine	Diet 1 gr., + threonine, water common	Diet 5 gr., water bioresonance
Consumption stern, g / bird / day	7.16	6.72	7.10	13.15	13.55	14.64
in% to 1gr.	100	93.9	99.2	183.7	-	-
6 gr. in% to 5 gr.	-	-	-	-	100	108
Average day. gain, g	2.63 ± 0.42	2.18 ± 0.21	2.26 ± 0.25	6.96 ± 0.47	7.76 ± 0.60	8.68 ± 0.35
in% to 1 gr.	100	82.9	85.9	265.9	-	-
6 gr. in% to 5 gr.	-	-	-	-	100	111.9
Expenses feed, g / 1 g gain	2.72	3.08	3.14	1.89	1.75	1.69
in% to 1 gr.	100	113.2	115.4	69.5	-	-
6 gr. in% to 5 gr.	-	-	-	-	100	96.6

As you can see from the table. 2, neither bioresonance water (2 g.), Nor bioresonance water on a threonine matrix (3 g.) Did not improve the appetite and growth of chickens. On the contrary, in these groups the average daily gains turned out to be lower, and the feed costs per year of gain were higher than in the chickens of the 1st group.

At the same time, chicks that consumed the threonine solution dramatically increased feed intake and average daily gain. The chickens of the 6th group on the diet adjusted for all amino acids and bioresonance water grew by 11.9% better than the chickens of the 5th group, which received a similar diet and ordinary water (the difference is significant). The significance of the differences between the gains of chickens from 1–3 groups and the gains of chickens from 4–6 groups was high ($p < 0.001$).

The timing of the behavior of chickens revealed that on balanced diets (4–6 groups), chickens spent significantly more time sleeping, and significantly less on movement, more on water and feed consumption than chickens on unbalanced threonine rations. Evaluation of the clinical picture of blood showed that the level of total protein 26.2 ± 0.5> 22.5 ± 0.4 mg% ($p < 0.001$) and total albumin 17 was significantly higher in chickens of group 3 (bioresonance water - threonine matrix) .5 ± 0.6> 14.1 ± 0.84 ($p < 0.001$). For other indicators - the level of ALT, AST, alkaline phosphatase, glucose, cholesterol levels, no noticeable difference was noted. Thus, we can conclude that bioresonance technology is not

effective on diets unbalanced in essential amino acids for growing chickens.

In the second experiment on broiler chickens, bioresonance water (matrix - water) did not have any positive effect on the growth of chickens, moreover, as in the first experiment, it decreased (Table 3). On diets with NPY and epinephrine matrix, there was an increase in average daily gains by 2.8 and 2.3%, respectively. But the difference is not significant. On a taurine matrix diet, bioresonance technology was ineffective. However, on the same diet, but with the addition of 0.5% taurine to the feed, the chickens grew 5.1% better and consumed 5.9% less feed in comparison with the chickens in the control group. The difference in weight gain in comparison with the control is significant at p <0.05. In comparison: with the indicators in the 5th group, the average daily gains were 7.5% higher, and the feed cost per 1 kg of gain was 7.6% lower.

Interestingly, in the groups with NPY matrices, epinephrine and a diet + 0.5% taurine, the chickens drank 10.3% of water; 5.6 and 7.8%, respectively, more than in the control. This correlated with their higher growth. Higher water intake was not reflected in muscle tissue content.

From the results obtained, it can be concluded that the use of neuropeptide Y (NPY) and epinephrine as a matrix, which are active signaling substances, rather than building blocks, to which threonine belongs as a constituent part of the protein, seems to be very promising. to increase the productivity of broilers in poultry farms. Taurine matrix did not play a positive role in bioresonance application, while the addition of crystalline taurine to feed was very effective in improving chick growth and feed conversion.

Table 3

Feed consumption and growth of broiler chickens under the influence of NPY, epinephrine and taurine using bioresonance technology

No. of groups	one	2	3	4	five	6
Indicators	The control water common	Water bioresonant matrix water	Water bioresonant bioresonic NPY matrix	Water bioresonant the matrix-epinephrine	Water the matrix-taurine	Water common + 0.5% taurine to feed
Zh.m. at the beginning. experience, g / head.	89.6	89.9	90.1	89.0	89.6	90.1
Zh.m. finally experience, g / head.	586.2	576.3	600.4	598.3	575.7	612.8
Average day gain, g	35.5 ± ± 1.2	34.7 ± ± 1.17	36.5 ± ± 1.21	36.3 ± ± 1.32	34.7 ± ± 1.37	37.3 ± ± 1.68
in% to control	100	97.7	102.8	102.3	97.7	105.1
Feed consumption, g / bird / day	59.9	59.2	61.1	58.9	59.7	59.5
in% to control	100	98.8	102.0	98.3	99.7	99.3
Feed costs per 1 kg gain, kg	1.69	1.71	1.67	1.62	1.72	1.59
in% to control	100	101.2	98.8	95.9	101.8	94.1
Water consumption, ml / bird / day	105	104.8	115.8	110.9	104.4	113.2
in% to control	100	99.8	110.3	105.6	99.4	107.8
Water content in pectoral muscle,%	76.2	76.1	76.4	75.9	76.3	75.5

We have determined the absolute and relative mass of internal organs: heart, liver, muscular and glandular stomachs, small and large intestines, pancreas, spleen, blind processes. A significant increase in the relative weight of the liver and a decrease in the relative weight of the intestine (p <0.05–0.01) were clearly observed in chickens on a diet with the addition of taurine in comparison with these indicators in the other groups.

Conclusions:

1. Bioresonance technology using the essential amino acid threonine as matrix when feeding chickens with an unbalanced diet for this amino acid did not have a positive effect on the growth of chickens.

2. When used as a matrix of signaling substances neuropeptide vai (NPY) and neurotransmitter epinephrine, an increase in the growth of chickens by 2.5–2.7%, more efficient use of feed is observed. However, these data need to be additionally confirmed for more numerous livestock.

3. The use of taurine as a bioresonance matrix turned out to be ineffective. In the same time the inclusion of crystalline taurine in the diet of chickens contributes to an increase in growth by 5.1%, a decrease in feed costs by 5.9%. It is necessary to check these data on more numerical livestock.

List of used literature

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