

Bioresonance effect of SES insulin on bulls raised for meat

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annotation

The article presents the results of observations of the growth and development of bulls for 120 days of exposure to the spectrum of electromagnetic frequencies of insulin. An advantage in the growth and development of animals in the experimental group was established, which consisted in an increase in growth by 11.6%, an increase in meat conditions in terms of body build indices from 3.5 to 15%. There was also a change in some blood parameters, indicating an increase in metabolism: the hemoglobin level increased by 19.8%; decreased glucose and cholesterol content by 3.4% and 1.5%, respectively.

Introduction

Development of technologies with using various frequency ranges electromagnetic radiation in human practical activity - one of the trends determining the level of modern civilization. Questions about the influence of electromagnetic radiation on life processes and environmental safety, as well as their use in agriculture, attract more and more researchers and cause active scientific discussions around the world [2-4].

In the course of evolution, the objects of agricultural production of both plant and animal origin, constantly under the influence of natural and artificial electromagnetic fields, have developed mechanisms for the perception of information about the state of the environment through interaction with these fields. Biochemical and physiological processes occurring in a living organism produce their own electromagnetic fields with a specific frequency spectrum. External influence of the same spectrum of electromagnetic frequencies (EFS) causes the phenomenon of resonance (bioresonance), which, in turn, stimulates or suppresses certain biochemical processes [1].

The task of zootechnical and veterinary specialists is to assess the effectiveness of the use of electromagnetic effects of various frequency spectra on specific objects of animal husbandry and to develop methods of bioresonance effects for each technological process in animal husbandry. The combination of such methods adds up to a technology known as bioresonance technology.

To increase meat productivity, an effect is required that increases bioconversion and accelerates metabolic processes. To solve this problem, an insulin preparation was chosen, since insulin affects the rate of transport of glucose, as well as amino acids and minerals through the cell membrane into the cell itself [5].

The purpose of this work is to assess the possibility of positively influencing the influence of the electromagnetic frequency spectrum (EFS) of insulin on the growth and development of gobies raised for meat, as well as to reveal the characteristics of the metabolism of animals by analyzing some parameters of their blood.

Materials and research methods

The work was carried out on the farm for raising young cattle "Belynovichi" SPK "Olgovskoe" in the Vitebsk region. According to the principle of analogs, two groups of bulls, 10 heads each, were formed - experiment and control, at the age of nine months. The animals were kept in different stalls of the same livestock building. The feed, feeding conditions and microclimate in the groups were the same and corresponded to the technology of raising gobies adopted on the farm. The supply of drinking water to the drinking bowls in the experimental and control groups was separate. For exposure to animals of experimental groups of the spectrum

electromagnetic frequencies (SES) of insulin used the device "IMEDIS-BRT-A", designed to read and broadcast SES of biologically active substances (BAS). This device was developed by the Center for Intelligent Medical Systems "IMEDIS" (Moscow), approved for use by the commission of the Ministry of Healthcare of Russia [6].

The impact on animals was carried out according to the method developed by the North Caucasian Research Institute of Animal Husbandry [1], around the clock during the entire observation period through drinking water, to which animals have free access. An insulin preparation - "Protophan" - synthetic human insulin, consisting of amorphous and crystalline insulin in a ratio of 3: 7 (insulin of the Lente type), manufactured by NovoNordiks (Denmark), was placed in the slot for reading the SES of the IMEDIS-BRT-A apparatus. A wire was connected to socket 2 of the apparatus, the other end of which was fixed to a drinking bowl, through which an electromagnetic signal was transmitted through the water to the bulls.

In bulls at the beginning of the experiment, after 60 and 120 days, the live weight was taken into account, measurements were taken and the body indices were calculated according to generally accepted methods [7]. Blood samples were taken, 5 animals from each group, blood samples were analyzed at the Research Institute of Microbiology and Microbiology, UO "VGAVM" according to generally accepted methods.

Research results

The hypothesis of this work is that the processes of cell growth can be stimulated by the SES of insulin due to the fact that more nutrients enter the cell from the bloodstream through the cell membrane per unit time, and the body receives an additional resource for growth. This resource will have to manifest itself in additional gains in bulls. Growth indicators of bulls in the study are presented in table. 1.

Table 1

Indicators of gains in live weight of gobies for 60 and 120 days of the experiment, n = 10

Indicators	Control	An experience	+ / - Experience / Control
Live weight at the beginning, kg	220.7 ± 5.7	232.4 ± 6.4	+ 11.7
Live weight after 60 days, kg	250.5 ± 6.8	279.6 ± 8.8 *	+ 29.1
- gain, kg	29.8	47.2	+ 58
- growth, %	13.5	20.3	-
- average daily gain, g	497	786	+ 58
Live weight after 120 days, kg	287.7 ± 11.9	329.8 ± 11.4 *	+ 42.1
- gain, kg	37.2	50.2	+ 13.0
- growth, %	14.9	17.9	-
- average daily gain, g	620	836	34.8
In just 120 days:			
- gain, kg	67.0	97.4	+ 30.4
- growth, %	30.4	42.0	-
- average daily gain, g	588	813	+ 224
- average daily gain,%			+ 38.2

Note: * - P < 0.05.

After 60 days of exposure to the SES of the drug "Protophan" on the bulls of the experimental group, their average live weight was 279.6 kg, in the bulls of the control group - only 250.5 kg, which is 29.5 kg lower. After 120 days, the average live weight of the animals in the experiment was 329.8 kg, while in the control it was only 287.7 kg; the difference was 42.1 in favor of the experimental group. The gain during the observation period in the experiment was 97 kg, which exceeded this indicator in the control by 30 kg. The average daily gain of bulls in the experimental group was 38.2% higher.

There was a marked increase in live weight gains in the first 60 days.

observations. In the experimental group, by the end of the first observation period, the superiority in gains of bulls was 58%, while in the next 60 days this figure was only 35%. Perhaps there is a certain mechanism for the periodicity of the reaction to the effect, which will be characterized by the alternation of the transition of quantitative changes to qualitative ones, and there may also be a different level of feeding of animals in different periods of the experiment.

Productivity indicators are closely related to the level of blood homeostasis. From the analysis of the data table. 2, it can be seen that the main blood parameters of bulls from the control and experimental groups were within the physiological norm, but certain differences were noted.

Comparative blood indices of bulls in the control and experimental groups at the end of the experiment are presented in table. 2.

table 2

Blood indicators of bulls after 120 days of the experiment

Indicators	Control	An experience	+ / - Experience / Control, %
Hemoglobin, g / l	81.8 + 4.67	98.0 + 5.24 *	+ 19.8
Total protein, g / l	65.56 ± 2.23	68.14 ± 2.56	+ 3.9
Glucose, mmol / l	3.91 ± 0.12	3.78 ± 0.15	- 3.4
Cholesterol, mmol / l	3.43 ± 0.18	3.38 ± 0.14	- 1.5
Calcium, mmol / l	2.56 ± 0.09	2.4 ± 0.12	- 6.7
Phosphorus, mmol / l	2.08 ± 0.18	1.87 ± 0.16	- 11.2
Albumin, g / l	30.78 ± 0.20	31.36 ± 0.26	+ 1.9

The level of hemoglobin is used to assess the respiratory function, the level of oxygen supply to the tissues. Hemoglobin in animals of the experimental group was 19.8% higher than in the control group and amounted to 98.0 grams per liter.

Also, the total protein is 3.9% higher in the animals of the experimental group, while, accordingly, a slight increase in albumin is observed. The combination of an increased level of total protein with high levels of hemoglobin, as well as a slight decrease in cholesterol levels, suggests that bulls in this group had a higher level of metabolic processes than animals in the control group.

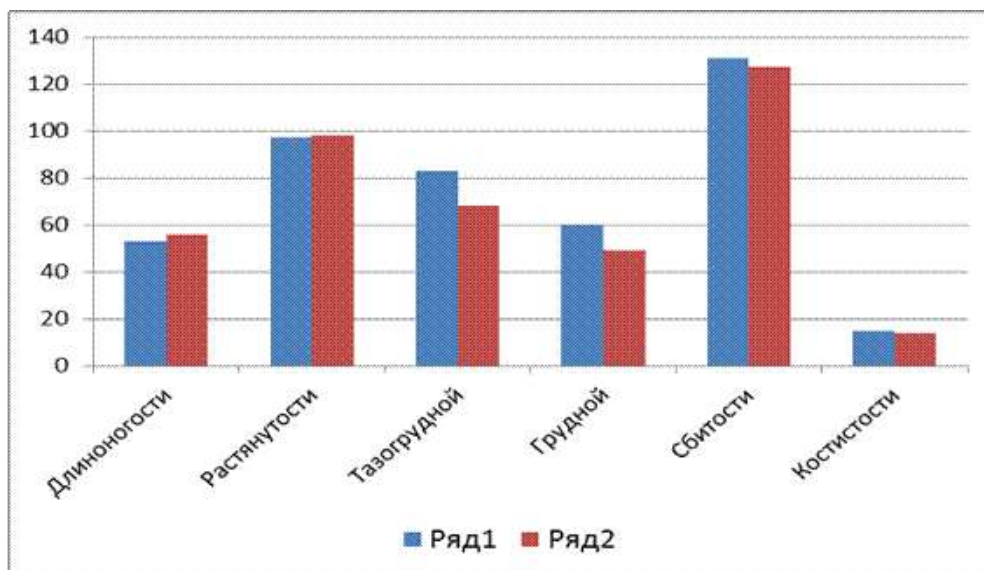
The glucose content in the blood of the experimental animals decreased on average by 3.4%, apparently, such a reaction is characteristic of the blood when exposed to SES insulin. Since the productivity indicators for these groups are higher than the control, it can be concluded that the total glucose pool in the body is not reduced, but is used to a greater extent for the formation of additional productivity.

The phosphorus content increased by 11.2% in comparison with the animals in the control group. For other indicators, no significant differences were found.

Further, the features of the development of animals were studied by taking measurements and calculating body indices. In fig. 1 shows a graphical display of the average measurements for 10 animals, obtained from the results of measurements in the experimental and control groups.

Further, the analysis was carried out by calculating the physique indices, which are given in table.

3.



Rice. 1. Comparative characteristics of body build indices of age bulls 13 months
(1 row - experiment, 2 row - control)

Table 3

Physique indices of experimental animals

Index	Measurement ratio	An experience	Control
Long legged	$(\text{Height at withers} - \text{depth of chest} / \text{Height at withers}) \times 100$	52.8 ± 2.05	55.5 ± 1.66
Stretching	$(\text{Oblique body length} / \text{Height at withers}) \times 100$	96.88 ± 1.30	98.24 ± 2.58
Pelvic	$(\text{Width of the chest behind the shoulder blades} / \text{Width at the shoulder blades}) \times 100$	83.24 ± 3.90	68.02 ± 2.46
Pectoral	$(\text{Chest Width} / \text{Chest Depth}) \times 100$	60.44 ± 2.72	49.08 ± 1.96
Downfall	$(\text{Bust} / \text{Oblique torso length}) \times 100$	130.7 ± 2.70	127.3 ± 2.63
Bony	$(\text{Metacarpal circumference} / \text{Height at withers}) \times 100$	14.80 ± 0.62	14.35 ± 2.77

Analysis of the indices given in table. 3 and fig. 1, showed that the animals in the experimental group gained a large live weight due to better development of muscle mass, rather than bone growth. That is, the size of the animals in body length and height in the experiment and control did not differ, the main differences were noted when measuring the parameters of the width of the body, therefore, the indices of downsizing, pelvic and pectoral calves in the experimental group are higher, and the long-legged and elongation are lower than those of their counterparts in the control group. groups.

Since the aim of the work is to obtain additional products in the form of meat, the most important indicator of the meat production of bulls is the amount of muscle tissue. The analysis of the results obtained allows us to conclude that the effect of the electromagnetic frequencies of insulin does not expand the genetically determined framework for the growth of bulls, but only stimulates a more complete realization of meat productivity.

Since for 120 days of observation the experimental animals did not reach slaughter conditions, we presented a design calculation of economic efficiency for the observation period per one livestock building per 100 head of bull calves for growing and fattening (tab.

4).

Table 4

Design calculation of the economic efficiency of using the bioresonance method when raising bulls for meat for a period of 120 days (per 100 heads)

Indicators	Control	An experience	+ / - Experience / Control
Average growth of 1 head, kg	67.0	97.6	+ 30.6
Average growth of 100 heads, kg	6700	9760	+ 3060
Cost of 1 kg of live weight, rub.	53200	53200	-
Cost of products received, thousand rubles	356440	519232	+ 162792
Investment in technology, thousand rubles	-	3600	
Economic effect per 100 head, thousand rubles	-	159192	+ 159192

conclusions

Thus, there was an advantage of the growth and development of gobies under the influence of SES insulin, which consists in an increase in gains for 120 days by 30.6 kg; an increase in meat conditions in terms of physique indices from 3.5 to 15%. Some blood indicators were obtained, indicating the activation of metabolism - there was an increase in hemoglobin levels by 19.8 and a decrease in glucose and cholesterol by 3.4% and 1.5%, respectively.

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