

EFFECT OF KUFESTROL PREPARATION ON HEN EGG PRODUCTION

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Abstract

This article presents data on the effect of the kufestrol preparation on chicken egg productivity and some hematological indicators.

Keywords: Biostimulant, kufestrol, hematology, "Ecomix," premix, BK6190 BIOBASE analyzer, Mindray BA-88A analyzer, erythrocytes, hemoglobin, total protein, glucose.

Introduction

Relevance of the topic. Today, poultry farming is one of the most dynamically developing sectors in the world. Poultry farming is an important branch of animal husbandry, enabling the production of eggs, poultry meat, and meat products. In this context, increasing the number of poultry farms is of great scientific and practical importance. (Table 1)

Table-1 Egg production of experimental hens (%)

Groups	Age of hens, day					
	120	150	180	210	240	270
I-control	5	42	55	65	78	80
II-experimental	10	60	72	81	87	91
III-experimental	7	51	60	70	80	85

Chicken egg productivity averaged 80% in the first control group, 91% in the second experimental group, and 85% in the third. It should be noted that in the second experimental group, where coufestrol was used, the chicken egg productivity was 6% higher than in the third experimental group and 11% higher than in the control group.

Studying the effect of applied medications on the physiological state of chickens by identifying blood parameters is widely used as one of the important research methods, as changes in blood reflect changes in the entire organism. The results of the studies on some morphobiochemical parameters of the blood of the experimental chickens are presented in Table 2.

Table 2. Hematological parameters of chicken blood, $n \pm 30$

Indicators	Groups					
	I-control		II-experimental		III-experimental	
	N.E	K.E.	N.E	K.E.	N.E	K.E.
Erythrocyte, $10^{12}/l$	3,24±0,04	3,68±0,05	3,12±0,02	3,96±0,05	3,20±0,02	3,76±0,05
Leukocyte, $10^9/l$	34,8±0,40	39,2±0,49	34,4±0,37	40,4±0,49	34,6±0,12	40,2±0,80
Hemoglobin, g/l	92,4±2,52	94,3±2,52	93,2±2,29	106,0±2,46	93,2±1,52	99,8±1,63
Total protein, g/l	47,04±2,09	50,20±0,81	46,66±1,88	59,38±2,50	46,94±1,96	55,34±1,06
Glucose, mmol/l	13,46±0,14	13,88±0,22	13,38±0,40	15,34±0,17	13,24±0,19	14,98±0,22

Note: N.E. - at the beginning of the experiment; K.E. at the end of the experiment.

If at the beginning of the experiment the number of erythrocytes, leukocytes, and hemoglobin in the blood was the same in all groups, then by the end of the experiment the number of erythrocytes in the control group increased from 3.24 ± 0.04 to 3.68 ± 0.05 $10^{12}/l$, in the second experimental group from 3.12 ± 0.02 to 3.96 ± 0.05 $10^{12}/l$, then in the third experimental group the number of erythrocytes increased from 3.20 ± 0.02 to 3.76 ± 0.05 $10^{12}/l$.

By the end of the experiment, the number of leukocytes in the control group increased from 34.8 ± 0.40 to 39.2 ± 0.49 $10^9/l$, in the second experimental group - from 34.4 ± 0.37 to 40.4 ± 0.49 $10^9/l$, and in the third experimental group - from 34.6 ± 0.12 to 40.2 ± 0.80 $10^9/l$.

In the second experimental group, compared to the control group and the third experimental group, the hemoglobin level increased and amounted to 106.0 ± 2.46 g/l.

The total protein content in the blood by the end of the study was 50.20 ± 0.81 g/l in the first control group, 59.38 ± 2.50 g/l in the second experimental group, and 55.34 ± 1.06 g/l in the third experimental group. In the second experimental group, where coufestrol was used, an increase in the total protein content was revealed compared to other groups.

The glucose level in the first control group was 13.88 ± 0.22 mmol/l, in the second experimental group 15.34 ± 0.17 mmol/l, and in the third experimental group 14.98 ± 0.22 mmol/l. It was noted that all the above-mentioned hematological indicators were higher compared to the control group and the third experimental group in the second experimental group, where the drug Kufestrol was used. It should be noted that the pharmacological stimulating effect of the kufestrol preparation on the chicken's body is high.

Conclusions

1. In addition to the chickens' diet in the chicken egg production direction, 15 grams of Kufestrol preparation is mixed for 1 ton of feed for 180 days, which provides 108 days of egg-laying chickens, that is, 12 days earlier than other groups, and 11% of chicken egg production.
2. Mixing the preparation Kufestrol in the amount of 15 grams per 1 ton of feed increased the number of erythrocytes in the blood of chickens by 3.96 ± 0.05 $10^{12}/l$, leukocytes by 40.4 ± 0.49 $10^9/l$, hemoglobin by 106.0 ± 2.46 g/l, total protein by 59.38 ± 2.50 g/l, and glucose by 15.34 ± 0.17 mmol/l.

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