



Effect of Cufestrol Drug on Growth and Development of Chicks

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Abstract: *In this scientific article, information about the effects of kufestrol on the growth and development of chicks and on some blood parameters is presented.*

Keywords: *Biostimulant, kufestrol, hematology, "Ecomix", premix, BIOBASE BK6190 analyzer, Mindray BA-88A analyzer, erythrocyte, hemoglobin, albumin, globulin, glucose.*

Relevance of the topic. Today, poultry farming is the most rapidly developing branch of the agro-industrial complex in the world and in our country, providing the population with high-quality products.

Poultry farming is one of the leading branches of agriculture not only in Uzbekistan, but also in the whole world. First of all, this is due to the demand for cheap and high-quality food products.

Currently, the poultry market is one of the largest markets for food products. The potential of the domestic poultry market is huge, and the demand for this type of meat products often exceeds the supply. The growing demand for local products is stimulating production.

Due to the acceleration of poultry farming, special attention is being paid to the complete feeding of chickens. The diet of poultry should contain complete proteins, fats, macro and microelements, biostimulants and vitamins. It would be appropriate to use natural biostimulants to realize the genetic potential of poultry. Adding a biostimulant to the feed allows to strengthen the necessary vital processes of the animal organism.

The purpose of the study. Studying the effects of the natural biostimulant drug kufestrol on the growth and development of chicks and on some hematological indicators of their blood.

Research object and methods. Our research was conducted at the "Oqdarya Ozodbek Poultry" farm, Oqdarya District, Samarkand Region. For our research, 10-day-old 255-egg Lomann Brown crossbred chicks were selected. The groups were kept in cages in an experimental poultry house. The temperature in the room, the ventilation and lighting system, feeding and drinking water fully meet the zoohygienic requirements of the farm. To conduct the experiments, 85 heads were divided into 3 groups. The daily growth of chicks was determined using an electronic scale.

Chicks of the control group were fed only farm ration. The second experimental group was fed "Ecomix" premix (1 kg/100 kg) mixed with fodder. The third experimental group was given kufestrol preparation (1g/100 kg) mixed with feed. The experiments lasted 60 days.



Blood morphological indicators were determined using the BIOBASE BK6190 hematological analyzer. Biochemical indicators in blood serum were determined using the automated Mindray BA-88A analyzer.

Research results. During the experiment, the growth dynamics of live body weight of chicks was carried out by individual weighing of 45 chicks from each group before feeding in the morning. The chicks in the experiment were determined by weighing them on an electronic scale every 10 days. Average growth of live weight of chicks at 10, 20, 30, 40, 50, 60 days was observed. At the end of the experiment, the average live weight of chicks increased by 315.2 grams in the first control group, 363.9 grams in the second experimental group, and 440.3 grams in the third experimental group, or 14.7% in the second group and 23.5 in the third group as a percentage compared to the control. 7.3 grams in the control group, 8.3 grams in the second experimental group and 9.8 grams in the third experimental group, or 14% higher in the second group and 22% higher in the third experimental group in the average daily increase compared to the control showed (Fig. 1).

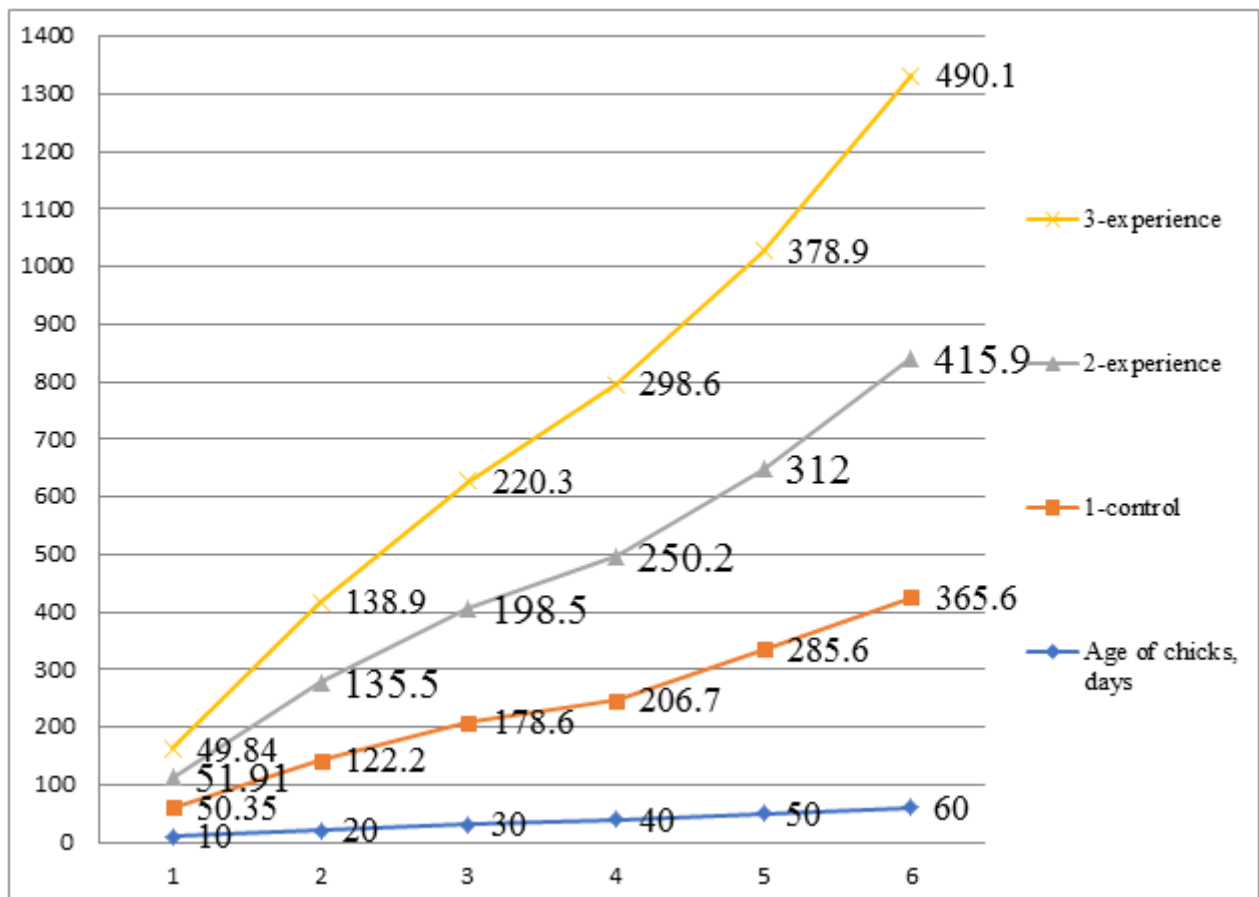


Figure 1. Live weight of chicks, g (n=85)

When studying and evaluating the effect of new drugs, biological additives and biostimulants on the poultry organism, it is impossible without studying the morphological and biochemical parameters of the blood, because the blood in the body performs many tasks aimed at maintaining its life. . Blood morphological indicators were determined using the BIOBASE BK6190 hematological analyzer. Biochemical indicators in blood serum were determined using the automated Mindray BA-88A analyzer.

On the 60th day of the experiment, compared to the control group, the number of erythrocytes increased by 12.3%, leukocytes decreased by 2.2%, hemoglobin by 4.9%, total protein by 2.07%,



albumins by 2.4%, globulins By 1.8%, calcium by 1.8%, phosphorus by 0.4%, glucose by 2.8% ($P < 0.01$) decreased.

Based on the data obtained from the analysis of morphological and biochemical indicators of blood, chicks in all groups were clinically healthy, and no pathological processes were detected in the body. It should be noted that the best result was clearly visible in the chickens of the third experimental group (Figures 2-3).

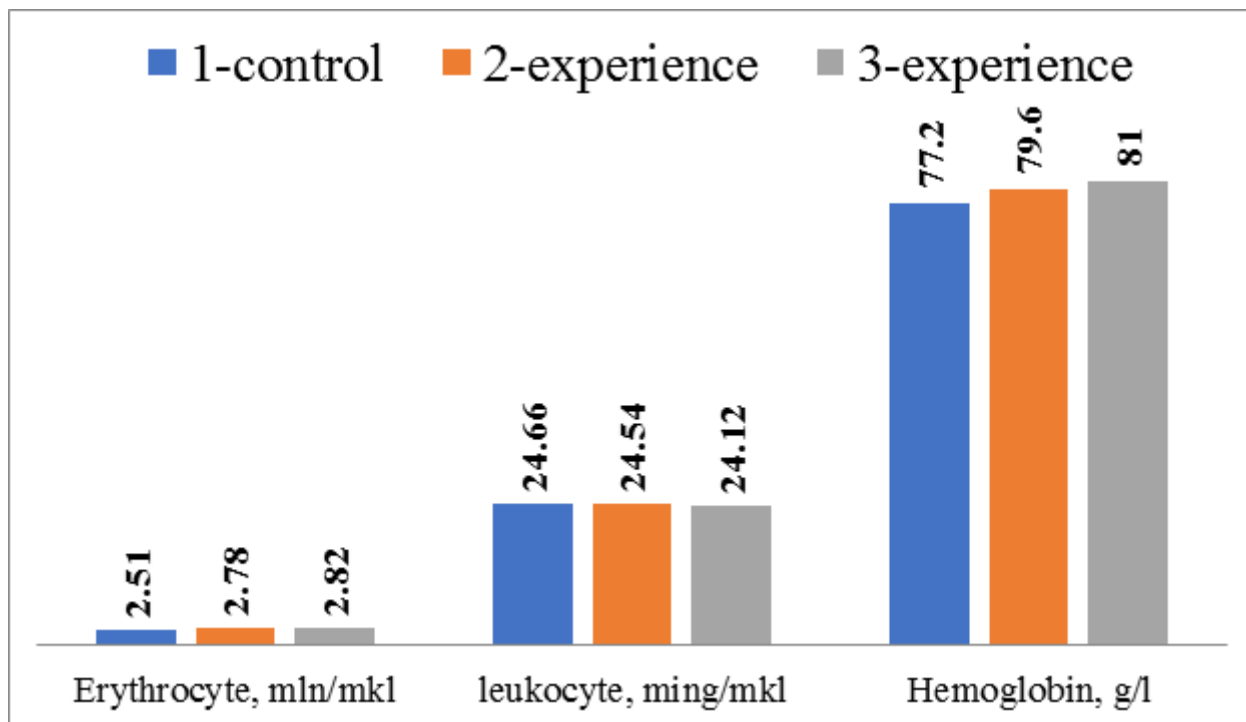


Figure 2. Morphological parameters of the blood of chickens (60 days)

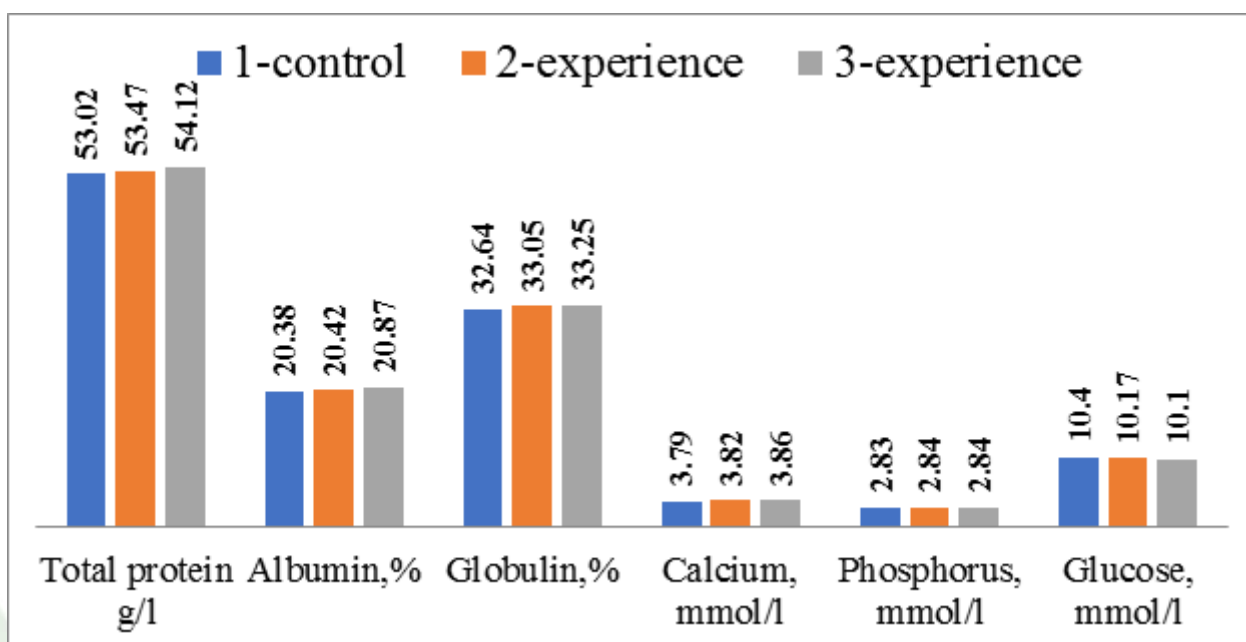


Figure 3. Biochemical indicators of chicken blood (60 days)



Based on the data obtained from the analysis of morphological and biochemical indicators of blood, chicks in all groups were clinically healthy, no pathological processes were detected in the body. It should be noted that the best result was clearly visible in the chicks of the third experimental group.

Conclusions

1. It was found that the viability of the chicks in the egg direction where Kufestrol was used was 99%, and the average live weight was 125.1 grams higher than the control.
2. Kufestrol drug does not have a harmful effect on the hematological parameters of the blood of chicks.
3. According to the end of the experiment, compared to the control group, the number of erythrocytes increased by 12.3%, the amount of hemoglobin increased by 4.9%, the total protein increased by 2.07%, the amount of albumin increased by 2.4%, and the amount of globulin increased by 2.4%. 1.8%, calcium by 1.8%, phosphorus by 0.4%.

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