2023: International Conference on
"Academic Integrity and Lifelong Learning" (France)
https://www.openconference.us/index.php/academic/issue/view/14

The Influence of the Drug Kufestrol on the Egg Production of Chickens and its Quality

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Abstract: *This article presents data on the pharmacological effect of the drug kufestrol on the egg production of chickens, as well as the organoleptic characteristics of eggs.*

Key words: *Biostimulator, kufestrol, "Ecomix", premix, blanket, ferula kuhistanica Eug. Cor, phytoestrogen, sesquiterpene, teferin, ferutidine, teruferidine, feruten, ovoscope.*

Relevance of the topic. Today, poultry farming is one of the rapidly developing industries in our country. Poultry farming is an important branch of animal husbandry and provides the opportunity to produce poultry meat, dietary meat products made from it, eggs, and feathers. Therefore, increasing the number of poultry farms, using them rationally, increasing the egg production of chickens is of great scientific and practical importance. As a result of the fundamental reforms and deep structural changes implemented in the poultry industry in our country, the number of poultry heads is increasing year by year, and productivity is increasing. In this regard, various pharmacological drugs are used to increase the productivity of poultry [1; 2].

Kufestrol is a dark green powdery product extracted from the above-ground part of the Kuhistan cowberry plant (Ferula kuhistanica Eug. Kor). The biological properties of the Kufestrol drug are related to the complex ester sesquiterpene alcohols included in its composition. The active substance of the drug is natural phytoestrogen [3;4].

The composition of the Kufestrol preparation consists of a mixture of complex ether sexterpene alcohol, ferutinin, teferin, achinen, ferutidine, terupheridine, ferutene and microcrystalline cellulose. Kufestrol is a low-toxic substance, and in terms of activity, it does not lag behind synthetic hormonal drugs. In our experiments, we studied the characteristics of the pharmacological effect of kufestrol on egg production and quality of poultry. [2;3;4]

Research object and methods. The research was conducted at the "Oqdarya Ozodbek Poultry" farm, Oqdarya District, Samarkand Region. 180 90-day-old chickens of the Lomann LSL-classic breed of the farm's egg line were taken and divided into 3 groups of 60 chickens each.

The chickens of the first control group were fed only on farm rations, 15 grams of Kufestrol drug per 1 ton of feed was added to the ration of chickens of the second experimental group, and 10 kg of Ecomix per 1 ton of feed was added to the ration of chickens of the third experimental group. Chickens in the experiment were clinically examined every 15 days. Our experiments lasted 180 days. The efficiency of the used preparations was evaluated according to the number

and weight of hens laying eggs, and the obtained eggs were subjected to veterinary sanitary expertise.

Results and their analysis. In our experiments, the time of chickens entering the egg was 135 days in the first control group, 115 days in the second experimental group, and 124 days in the third experimental group. That is, hens in the second experimental group were 20 days earlier compared to the control group, and 9 days earlier than the third experimental group. (Table 1)

Table 1 Egg productivity of chickens in the experiment (in %)

Groups	Age of chickens, days											
	120		150		180		210		240		270	
	piece	%	piece	%	piece	%	piece	%	piece	%	piece	%
Control-I	3	5	25	41	33	55	39	65	43	72	46	76
Experiment-II	7	11	36	60	43	72	49	81	52	87	54	90
Experiment-III	5	8	31	52	36	60	43	72	48	80	50	84

Egg productivity in the experimental group in the first control group averaged 76%, in the experimental group 90% and in the experimental group 84%. It can be seen that egg productivity in the experimental group using kufestrol was 6% higher than the experimental group and 14% higher than the control group. The egg weight of the experimental loads was also weighed and checked.

Table 2 Weight of chicken egg, (g)

№	Indicators	Groups		
		Control-I	Experiment-II	Experiment-III
1	Average weight of total eggs	55,1	59,8	57,2
2	Compared to the control group,%	100	108,5	103,8

During our experiments, the average weight of eggs obtained from chickens in the first control group was 55.1 grams, the average weight of eggs from chickens in the second experimental group using kufestrol was 59.8 grams, and the average weight of eggs was 59.8 grams. the eggs of chickens in the third experimental group using "Ecomix" premix amounted to 57.2 grams.

As can be seen from the data in the above table, the weight of the eggs obtained from the hens of the second experimental group, where the kufestrol drug was used, was 9% higher than the average weight of the eggs of the hens in the control group. (Table 2)

In order to determine the quality of egg products obtained from experimental chickens, a veterinary sanitary examination was conducted. In order to determine the quality and freshness of the egg, cracks invisible to the naked eye, the height of the air chamber, the condition of the protein and yolk were determined using the "ovoscope".

Table 3 Organoleptic assessment of egg quality

Groups	Indicators			
	Air chamber condition	Egg yolk condition	Density and color of egg protein	The taste and smell of eggs
Control-I	height 12 mm, immobile	Balsam	Dense, light, clear	unpleasant odors
Experiment-II	height 13 mm, immobile	Orange	The density is unique, light and clear	No unpleasant odors
Experiment-III	height 13 mm, immobile	Pale yellow	The density is unique, clear	No unpleasant odors

Eggs obtained from all experimental groups in the experiment did not differ in terms of the following parameters when subjected to veterinary sanitary examination. The relative hardness and integrity of the egg shell, the cleanliness of the shell and the absence of foreign objects inside the egg, together with the height of the air chamber inside the egg is 13 mm, and the protein is dense and transmits light well. Eggs obtained from hens of the second experimental group contained 34.8 grams of protein, 19 grams of yolk, and 6 grams of shell.

Conclusions

1. Adding 15 grams of kufestrol drug to 1 ton of feed in addition to the diet of laying hens from 90 days of age ensures that hens will lay eggs from 115 days of age, that is, 20 days earlier than other groups.
2. Egg productivity of chickens in the group treated with Kufestrol was 14% higher than in other groups.
3. The egg weight of chickens in the second experimental group, where Kufestrol drug was used, was 59.8 grams, which was significantly different from other groups.
4. When looking at the organoleptic examination of the eggs, it was found that the eggs obtained from all the groups in the experiment were relatively hard, whole, and clean, that there were no foreign objects in the egg, and that the protein density was unique, and that it transmitted light well.

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