The Effect of the Use of Licorice Leaf Powder on the Productive Performance of Layers Chicken ISA Brown

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Abstract

This study was conducted in the field of poultry for the Department of Livestock - Faculty of Agriculture - Kirkuk University for the period 10/14 until 2019/12/9 To find out the effect of different levels of glyyrrhiza glabra leaf powder on productive performance and some of the fascal qualities of blood and intestinal flora of white chicken. In this experiment In this experiment, 28 chickens at the age of 24 weeks were used., randomly distributed to the cages with five treatments and a rate of two repeaters per treatments (2b/treatments), the first treatments (control) diet without any addition while the second, third, fourth and fifth treatment was taken on a scent edited by Glyyrrhiza glabra 0.25, 0.5.0.75, 0.1% respectively, The experiment period of 56 days was divided into three equal periods (14 days/ period). I has shown in the productive qualities produced in the rate of egg production in the first period significant different the third, fourth and fifth treatments and in the general rate significant different the fourth and fifth treatments In the average weight of the eggs, there were no significant differences between the treatments. We note in the egg mass rate in the second period the fifth treatments significant different on the other treatments. At the general rate, the treatment fourth and fifth on the other treatments In the rate of feed consumption shows a significant different in the first and second periods and the general rate in the fourth and fifth treatments on the other treatments and in the third periods significant different the fifth treatments In the food conversion.

Keywords: *licorice leaf, productive performance, layers chicken, ISA brown.*

Introduction

In recent times, human beings have tended to use medicinal plants and herbs and have occupied a privileged position in terms of therapeutic and nutritional Licorice plant are considered to be plants and medicinal herbs that are important for containing many flavonoid compounds that strengthen health and beneficial factors for oxidation It is rich in volatile oils and is as energy-efficient as perbionic acid [1,9]. Rich in energy-powered volatile oils such as perbionic acid, buteric and and indole [2,8]. It contains vitamin groups including vitamin C and E compound and is important for the vitality and sustainability of the body [3,4,10,11].

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Materials and Working Methods

This experiment was conducted in the field of poultry in the Department of Animal Production/Faculty of Agriculture/Kirkuk University for the period from 14/10/2019 until 10/12/2019 for a period of (56 days) and used (28) white chickens of the type (Isa Brown) At the age of 24 weeks was brought from one of the civil companies in Diyala province Riyadh, and after 14 days of breeding distributed chickens randomly to 5 treatments by 2 replicated and the first treatments were fed on a standard diet free of any addition. The second treatment was fed on a diet containing 0.25 kg/ ton glyyrrhiza powder edited the third treatment fed on a diet containing 0.5kg/ton glyyrrhiza powder the fourth treatment feed on diet containing 0.75 kg/ton glyyrrhiza powder and fifth treatment feed on diet containing 0.1 kg/ton glyyrrhiza powder. The period divided the experiment, which contained 56 days by three equal periods of 14 days each period, The SAS [6] tested the

significant differences between averages using the Duncan [7] multi-tide test at a significant level of 0.05 (table 1).

Table 1 of the components of the blackberry and its chemical composition calculated in the nutrition of the white chicken.

T6	T5	T4	T3	T2	T1	Blackberry components
52	52	52	52	52	52	Maize
11.75	11.80	11.85	11.90	11.95	12	Wheat
21.38	21.38	21.38	21.38	21.38	21.38	Soybean gain (47%)
2.70	2.70	2.70	2.70	2.70	2.70	Vegetable oil
9.13	9.13	9.13	9.13	9.13	9.13	Limestone
2.22	2.22	2.22	2.22	2.22	2.22	Dicalcium phosphate
0.17	0.17	0.17	0.17	0.17	0.17	Table salt
0.10	0.10	0.10	0.10	0.10	0.10	Blended vitamins and minerals
0.10	0.10	0.10	0.10	0.10	0.10	Choline (60%)
0.20	0.20	0.20	0.20	0.20	0.20	Methionine

Calculated chemical composition

Chemical composition of relational components NRC [5].

Results and discussion

In the ratio of egg production in the period, 4th and 5th 69.04, 64.24, 57.14 for the first experiment treatments. The second and third periods did not create a significant different between treatments. At the general rate, the fourth and fifth treatments were significantly higher than the remaining treatments (table 2) and that constant with [10,11].

Table 2 The effect of the use of different levels of licorice leaf powder at the H.D% egg production rate average ±standard error of chicken white ISA brown.

Treatments Duration per week	T1	T2	T3	T4	T5
First term	0.1±51.66 b	0.0± 52.38 b	2.3±57.14 a	0.0±64.28 a	2.3±69.04 a
Second term	4.1±55.41 a	4.0±56.45 a	1.1±63.09 a	1.1±66.14 a	4.0±66.42 a
The third term	3.5±65.54 a	4.7±66.66 a	5.9±70.23 a	1.1±77.38 a	10.7±79.76 a
General rate	2.5±57.55 a	3.6±58.49 a	3.1±63.48 ab	4.1±69.26 b	3.3±71.74 b

In the average weight eggs we note that the powder licorice did not show any significant differences in the periods and between all treatments (table 3) and this agree with [7,9].

Table (3) The effect of the use of different levels of licorice leaf powder at the average egg weight rate ±standard error of chicken white ISA Brown.

Treatments Duration per week	T1	T2	T3	T4	T5
First term	1.1±60.55 b	1.7±62.74 b	0.3±65.29 a	67.17±0.5 a	0.5±69.88 a
Second term	5.0±61.77 a	5.2±64.77 a	2.3±67.55 a	0.3±69.66 a	0.5±71.75 a
The third term	3.5±65.54 a	4.7±66.66 a	5.9±70.23 a	1.1±77.38 a	10.7±79.76 a
General rat	2.5±57.55 a	3.6±58.49 a	3.1±63.48 ab	4.1±69.26 b	3.3±71.74 b

We note in the average egg mass in the first and third periods there were no significant differences between treatments. In the second period, the fifth treatments exceeded 46.58 per 1,000 on other treatments. At the general average, the fourth and fifth treatments exceeded 51.24, 49.08 on the remaining treatments (table 4) and that agree with [10].

Table 4 The effect of using different levels of licorice leaf powder in the egg mass product is average ±standard error for chicken white ISA Brown.

Treatments Duration per week	T1	T2	T3	T4	T5
First term	2.5±32.89 a	2.7±.33.92 a	4.2±39.92 a	7.6±43.25 a	3.0±47.70 a
Second term	2.1±36.88 c	2.4±37.90 c	1.4±39.79 bc	0.3±44.92 ab	0.0±46.58 a
The third term	4.5±47.87 a	5.1±48.45 a	3.8±50.29 a	5.1±59.08 a	2.3±59.45 a
General rate	39.21±3.3 b	4.2±40.09 b	3.5±43.24 ab	4.5±49.09 a	2.1±51.24 a

In the feed consumption rate shows a significant different in the first and second periods and the general rate in the fourth and fifth treatments 123.1, 120.8, 120.5, 113.3, 102.6 g on other treatments and in the third the fifth treatments significant different 125.3 g on the rest of the treatments (table 5) and this result agree with [6].

Table 5 The effect of the use of different levels of licorice leaf powder in the average feed consumption rate is ±standard error for white chicken ISA Brown.

Treatments Duration per week	T1	T2	T3	T4	T5
First term	0.01±77.65 b	0.01±81.88 b	0.01±88.12 b	0.09±102.6 a	0.01±113.3 a
Second term	0.01±85.44 b	0.00±87.66 b	0.01±99.76 b	0.04±120.8 a	0.04±123.1 a
The third term	0.01±.91.12 b	0.01±99.56 b	0.02±110.5 b	0.05±116.5 b	0.01±125.3 a
General rate	0.03±84.73 b	0.02±89.73 b	0.01±99.46 b	0.04±113.3 a	0.02±120.5 a

The table shows in the food conversion that there have been no significant differences between the treatments added to it licorice (table 6) and that agree with [5].

Table 6 The effect of using different levels of licorice leaf powder in the food conversion coefficient g feed/g eggs medium ±standard error of chicken white ISA Brown.

Treatments Duration per week	T1	T2	T3	T4	T5
First term	0.01±3.36	0.02±2.41	0.00±2.22	0.03±2.58	0.01±2.37
Second term	0.02±2.31	0.01±2.63	0.03±2.50	0.02±2.68	0.01±2.64
The third term	0.01±1.90	0.02±2.05	0.01±2.19	0.02±1.97	0.01±2.10
General rate	0.01±2.16	0.02±2.23	0.00±2.30	0.03±2.30	0.02±2.35

Conflict of Interest: None

Funding: Self

Ethical Clearance: Not required

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