Sys Rev Pharm 2020;11(12):706-708
A multifaceted review journal in the field of pharmacy

The effect of use of plant *Glycyrrhiza glabra* on productive performance and some Biochemical qualities of blood for the broiler chickens Ross308

Chiman Abdulla Ibrahim[1], Ammar Qahtan shanoon[2], Rashid H. Hameed AL-Dalawi[2], Keldran Nooruldeen Hasan[2]

[1] Erbil medical technical institute
[2] Kirkuk university college of agriculture

Abstract
This experiment was conducted in poultry fields- Department of Animal Production -College of Agriculture–University of Kirkuk, in order to the study of the impact of the use of plant Glycyrrhiza *glabra* on biochemical qualities of blood plasma and microflora of goats for the period from 10/9/2019 to 16/10/2019, in this study ,120 broiler chicks Ross308 one-day old were used. The chicks were distributed to 5 treatments, 24 birds/treatment at 3 replications/ treatment and each repeater contained 8 birds. The treatments were the first treatment control of free of addtion, the second, third, fourth and fifth levels added to the *Glycyrrhiza glabra* plant by 0.5, 1 ,1.5 and 2 g/kg, Experiments results experience having a moral difference (P≤0.05) between the treatment and control of treatment with the *Glycyrrhiza glabra* plant in the qualities of physiological we note the absence of differences moral between the treatments pilot in terms of glucose, cholesterol, LDL, HDL, GSH and MDA. The total protein, albumin, globulin, Ast and Alt, the same direction in microflora were seemed all treatments score a significant results in it compared with control group.

Keywords: plant Glycyrrhiza glabra on productive performance, Biochemical qualities of blood for the boiler chichkens, Ross308

Introduction

The use of Medicinal Herbs, *Glycyrrhiza glabra* (herbaceous plant naturally belongs to the platoon leguminous) scientifically known *Glycyrrhiza glabra*, which is one of the one of the more Medicinal Herbs deployed in the world (AL-Samurai and Ali ,2010). And that the active substance in this plant is the Glycyrrhizin derivative of which material Carbenoxolene that have a role in the healing of stomach ulcers and intestines, as found him to do Antibacterial, viruses and fungi (AL-darraji et at, 2003).

Materials and Methods

Carried out this experience in the field of poultry of the Department of Animal Production-College of Agriculture University of Kirkuk, the period of 10/9/2019 and up to 16/10/2019. And use of the 120 chicks day-old type Ross 308, Where distributed chick randomly on the five treatments by 3 replicates per treatment of each duplicate 8 bird. Continued to provide the water and feed birds and freely (Ad libitum) within a period of experience on the basal diet the initiator and growth was treatments as follows:
Treatment 1 (T1): Compatible comparison of free add
Treatment 2 (T2): Add 0.5 kg/tons *Glycyrrhiza glabra* to the antique
Treatment 3 (T3): Add 1kg/tons *Glycyrrhiza glabra* to the antique
Treatment 4 (T4): Add 1.5 kg/tons *Glycyrrhiza glabra* to the antique
Treatment 5 (T5): Add 2 kg/tons *Glycyrrhiza glabra* to the antique

Table 1. The scales of the relevant materials in the formation of the factor used in the experiment with its combined chemical installation

Grower 22-35day	Starter 1-21 day	Ingredient, %
63.5	54	Corn
31	36.5	Soybean meal (44%)
2.5	5	Premix [(1)]
3	2.6	Sunflower oil
0	1.5	Stone Clea
0	0.4	Dicalcium phosphate
100	100	Total
Chemical composition [2]		
3153.65	2966	ME, kcal/kg
20.28	22.65	CP, %
0.70	0.93	Ca, %
0.77	0.48	Pb, %
0.53	0.51	Met, %
0.83	0.87	Met + Cys, %
1.33	1.31	Lysine, %

[1] The use of the Centre protease Brocon-5 product of the Company WAFI Hollander containing the 40 kg/tons CP,3.85 kg/tons Lysine , 3.7 Met, 4.12 kg/tons Met + Cys, 2183.7kcalME/kg,5kg/tons CF,2.26kg/tons Crude Fiber ,3.53kg/tons Ca, 5.35 kg/tons Pb, 2.4 kg/tons Na, 200000 ul/kg VitA ,6000ul/kg Vit D3, 600mg/kg Vit E, 50mg/kg Vit K3, 60 mg/kg Vit B1, 140mg/kg Vit B2,

700mg/kg Vit B12, 80mg/kg Vit B6, 800mg/kg Niacin, 20mg/kg of folic acid, 2 mg/kg biotin and 6073.20 mg/kg colin-chloride.

[2] by the chemical composition according to analyses silo contained in the NRC (1994)

Biochemical charstristic of blood

used crews solutions processed from the company Biolabo French to measure the concentration of glucose, Cholesterol, HDL, LDL, Total protein, Albumin, Globulin, AST, ALT, GSH and MDA. microflora were measured by using The intestines of the birds were cut from the fasting area after their slaughter (6 birds per treatment by 2 birds / bis) at the age of 8 weeks and took 10 g of its contents, and it was added to the physiological saline solution in a volume of 90 ml in sterile conditions and worked as a decimal dilution to mitigate 5-10 For the purpose of estimating the numbers of the following microorganisms, total bacteria, E. coli, Lactic acid bacteria. The preparation for calculating the preparation of this bacterium is by surface publishing method (SPREAD PLATING METHOD) according to the method SAMANTA et al. (2010) by using NUTRIENT AGAR to estimate the total bacterial preparation and MACCONKEY AGAR to estimate the preparation of coliform bacteria and MRS AGAR to estimate the preparation of lactic acid bacteria.

Results and Discussion

Evidenced by the results in the table 2 Show results in a Table 8,9 the absence of differences moral between the treatments pilot in terms of glucose, Cholesterol, HDL, LDL, Total protein, Albumin, Globulin, AST and ALT. That the improvement happening in the increase weighted, feed consumption coefficient of feed conversion may return to the presence of material Glycyrrhizin which is a catalyst for growth and appetizing. Came to the results of our study violation of what reached that (AL-Sufi, 2018) the start a root powder *Glycyrrhiza glabra* to a bush quail did not up to the moral in the performance of productive recipes sacrifice as well as did not agree in terms of the qualities of blood ,where indicated (AL-sufi, 2018) that high moral and in the proportion of the total protein and low in the proportion of cholesterol and the absence of differences moral and in the proportion of glucose when added to the bush and by 0.5,1,1.5 .As for the weight of the carcass has pointed out (AL-Darraji et at , 2006) access high moral and in the proportion of cut –breast home at the addition extract *Glycyrrhiza glabra* to drinking water and by 600kg/L water.

Table 2. The impact of the use of plant *Glycyrrhiza glabra* to the bush in the image of fat blood serum(mg/dl) broiler Ross308

LDL	HDL	Cholesterol	Glucose	Treatment[1]
44.90±9.42	66.67±0.33	119.67±9.67	256±25.81[2]	T1
40.80±5.71	57.00±7.76	108.67±5.54	263±29.71	T2
43.60±17.92	62.33±4.48	118.33±17.81	290±35.64	T3
40.87±10.19	51.33±25.82	123.33±8.98	309±51.88	T4
55.87±17.58	60.67±8.08	130.67±9.49	254±26.58	T5

1 – T1: The treatment of control, T2, T3, T4, T5 Added to him *Glycyrrhiza glabra* by 0.5, 1, 1.5, 2 kg/tons respectively
2 – Average ± the standard error

Table 3. The effect of the use of plant *Glycyrrhiza glabra* in the bush on total protein, albumin, globulin in the blood serum (mg/100 ml) and (AST&ALT) broiler Ross 308

(ALT U/L)	(AST U/L)	Globulin	Albumin	Total Protein	Treatment[1]
11.66±1.33	244±41.52	18.60±2.96	11.53±2.88	3.06±0.4[2]	T1
8.33±0.88	249±51.00	17.46±1.97	12.20±3.55	2.96±0.1	T2
9.66±2.18	234±29.51	18.26±5.65	12.40±2.50	3.06±0.4	T3
10.00±1.15	235±27.18	20.30±5.32	11.70±2.73	3.20±0.3	T4
10.33±0.88	240±30.47	14.46±1.90	12.20±2.80	2.66±0.1	T5

1 – T1: The treatment of control, T2, T3, T4, T5 Added to him *Glycyrrhiza glabra* by 0.5, 1, 1.5, 2 kg/tons respectively
2 – Average ± the standard error

Table 4. The effect of the use of plant *Glycyrrhiza glabra* concentration of glutathione and malondialdhied broiler Ross 308

Glutathione mg/dl	malondialdhied mmol / L	Treatments
276±5.5c	0.908 ± 0.013a	T1
305 ±7.0b	0.821 ±0.015b	T2
306 ±3.0b	0.765 ±0.015c	T3
307 ±3.5b	0.732 ±0.005c	T4
311 ±4.0ab	0.722±0.005c	T5

1 – T1: The treatment of control, T2, T3, T4, T5 Added to him *Glycyrrhiza glabra* by 0.5, 1, 1.5, 2 kg/tons respectively
2 – Average ± the standard error

In table 4 the results of MDA showed significant different for all treatment compared with control

And we see in table 5 that the adding of *Glycyrrhiza glabra* have a significant effect ($p \leq 0.05$)) in total bacteria, E. coli and lactic acid bacteria count and that all treatment scores a different compared with control group.

Table 5. The effect of the use of plant *Glycyrrhiza glabra* in total bacteria, E. coli and Lactic acid count (10×10^{-9})

Treatments	Total bacteria	E. coli	Lactic acid bacteria
T1	9.33±0.45a	6.87 ±0.22a	5.64±0.21b
T2	7.25±0.34b	5.56 ±0.23b	6.11±0.23a
T3	6.78±0.23b	5.23± 0.31b	6.23 ±0.12a
T4	5.94±0.24b	5.67±0.17b	6.76±0.11a

T5	5.57±0.11c	5.75±0.13b	6.86±0.32a
probability	0.01>	0.05>	0.01>

1 – T1: The treatment of control, T2, T3, T4, T5 Added to him *Glycyrrhiza glabra* by 0.5, 1,1.5 ,2 kg/tons respectively

2 – Average ± the standard error

References

1. AL-Darraji, H.J., Imadulden. A. A., Jassim. A. M. & Hatem. I. A,.2003. Effect different concentrations of the extract *Glycyrrhiza glabra* in drinking water in the performance of productive broiler. Journal of Agricultural Sciences Iraqi.34(4)197-206.
2. AL-Darraji, H.J., Imadulden. A. A., Jassim. A. M.& H.A. Taha.2006.
3. The impact of the use of different levels of extract *Glycyrrhiza glabra* in improving the qualities of the sacrifice broiler. Studies Agricultural Sciences. 33(2).
4. AL-Samurai, A.K.A., M.B. Ali.2010. Impact of bio-plant *Glycyrrhiza glabra* in some qualities biochemical and enzymatic serum blood ewes awassi. Journal of Anbar Agricultural Sciences :8(4) number of a special conference.
5. AL-Sufi, Kh. A. Mustafa .2018. Effect different levels of root powder *Glycyrrhiza glabra* to the bush in the performance of productive and some qualities of blood bird quail. Journal of cultivation of Mesopotamia: 46(4).
6. Duncan, B. D. 1955. Multiple range and multiple F-test. Biometrics 11:1-42
7. NRC (National Research Council). 1994. Nutrient Requirement of Poultry .9th rev. ed. National Academy Press, Washington, D.C.
8. SAS Institute. (2004). The SAS System for Windows, Release 9.01. SAS Institute Inc., Cary, NC.