

**THE EFFECT OF ADDING OYSTER MUSHROOM *PLEUROTUS OSTREATUS* AND
ITS AGRICULTURAL BY-PRODUCTS TO THE RATION IN SOME PRODUCTIVE
AND PHYSIOLOGICAL CHARACTERISTICS OF MALE BROILERS**

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ABSTRACT

The current study was carried out at the poultry farms of the Animal Resources Department , College of Agriculture , Ubniversity of Baghdad. 450 males parent Fawbro broiler chicks were used over the period from 25/12/2002 to 21/2/2003 , two experiment were conducted , the first was to evaluate of adding different levels of the oyster mushroom (*Pleurotus ostreatus*) (three treatments P1 , P2 and P3 including adding the Oyster mushroom to the ration percentage 0.5 , 1.0 and 1.5 % respectively) to the rations , and the second experiment was to evaluate using agricultural by products (two treatments T1 and T2 including using its agricultural by products the Oyster mushroom in the ration percentage 4 and 8 % respectively) in the ration , and compared the two experiments with control treatment (Con) , there was without adding Oyster mushroom or agricultural by product to the ration and the birds feed in the two experiment treatments for period from 2-8 weeks of age. Some production , physiological and quality characters were investigated . Results obtained can be summarized as follows :

A- The first Experiment :

- 1- Showed body weight high significant increased ($P < 0.01$) at the end of eight week of age and in gain weight cumulative (3-8 weeks) of age treatments in P2 there was 5% increased compared with the control treatment , there where high significant decreased ($P < 0.01$) in feed consumption and feed efficiency from 3-8 weeks of age in treatments P1 and P2 compared with control , while the cumulative mean growth rate (3-8 weeks) increased significantly ($P < 0.05$) for P2 treatment compared with control treatment .
- 2- Significant increased in Basophil count in P3 treatment compared with control at the eight week and high significant reduction in blood serum glucose and chloestrol , uric acid and Glutamic Oxaloacetic Transaminase (GOT) and Glutamic Pyruvic Transaminase (GPT) enzyme activities for treatments with oyster mushroom compared with control at sixth and eight week of age . There were significant increased in blood serum total protein concentration at sixth week of age for P2 and P3 treatments also high significant increased in blood serum total protein concentration and Alkaline phosphatase (ALP) enzyme activities for treatments with Oyster mushroom at eight week of age compared with control .
- 3- There were no significant differences between the treatments in relative weights of carcass cuts , weight or length of some the internal organs and dressing percentage .

B- The second experiment :

- 1- Showed body weight significant increased ($P < 0.05$) at eight week of age and also in weight gain and growth rate at 3-8 weeks of age for T1 compared with control , there was percentage increased 3% through period experiment compared with the control treatment ,

while there were a high significant increased ($P < 0.01$) in feed consumption and feed efficiency at 3-8 weeks for T1 and T2 compared with control.

2- Showed there was significant increased in Basophils count to the blood at eight week for T1 and T2 compared with control. Also there were high significant increase in total protein concentration and significant increased in ALP enzyme activities in blood serum at eighth week for T1 and T2 compared with control , also there were significant reduced in blood serum GOT enzyme activity at sixth and eight weeks of age also GPT enzyme activity at eight week of age for T2 compared with control.

3- Showed significant increased in proventricular lengths for T2 treatment compared with T1 treatment .

