

## The effect of adding various levels of orange peelings powder to the diet on the production performance and some characteristics of carcass of broiler chicken

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**ABSTRACT:**

This study was performed in the poultry field in the Department of Poultry, Faculty of Agriculture, University of Baghdad, Abu Ghraib from 28.9.2017 to 2.11.2017 (35 days) to estimate the effect of adding various levels of dried orange peelings powder (0, 15, 20, 25 mg/kg) to the diet on the production performance of broiler chicken. One hundred and eighty unsexed broiler Rose 308 chicks were reared in this experiment at the age of one day. The chicks were fed on starter diet for the first three weeks of the age and fed on finisher diet in the fourth and fifth week. The chicks were distributed into four treatments (T<sub>c</sub>) control treatment (without addition), the second (T<sub>1</sub>), the third (T<sub>2</sub>), the fourth (T<sub>3</sub>) dried orange peelings powder at different levels (15, 20, 25 mg/kg). There were no significant difference between treatments in the body weight and weight increase values. A significant difference (P<0.05) was detected in the total feed consumption between treatments T<sub>1</sub>, T<sub>2</sub> and T<sub>3</sub> compared to the control treatment. Significantly, total feed conversion coefficient was improved in T<sub>1</sub>, T<sub>2</sub>, and T<sub>3</sub> in addition, there was no losses in the experimental treatments. No significant differences were found in the values of the production index between the experimental treatments. The percentage of dissolution without or with the edible internal intestines, the relative weight of the main and secondary carcasses were recorded. A significant increase (P<0.05) in the relative weight of the heart in T<sub>1</sub> and T<sub>2</sub> was also observed.

**Keywords:**

Broiler chicken, Orange peelings, Body weight gain, Feed conversion coefficient.