PALM TREE WASTES AS FEEDSTUFF IN FEEDING GROWING CHICKS

By

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B.Sc. Agric. Sc. (Poultry Production), Ain Shams University, 2002

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ABSTRACT

Ekramy Montaser Khalifa Gad El-Rab: Date Palm Wastes as Feedstuff in Feeding Growing Chicks. Unpublished M.Sc. Thesis, Department of Poultry Production, Faculty of Agriculture, Ain Shams University, 2014.

The first Experiment:

An experiment was conducted to determine the effects on growth performance, carcass characteristics and economic efficiency of mid rib of date palm (MDP) when included in corn-soy diets for Gemaza growing chicks. A total number of 150 one – day old Gemaza chicks (local breed) were distributed equitable into 5 dietary treatments in 3 replicates of 10 birds each. Five experimental diets in each period (starting, growing and finishing) were formulated in which (control diet) was 10% wheat bran, in the other MDP were incorporated at levels 2.5, 5, 7.5 and 10% to obtained four experimental diets ($T_1 – T_4$) respectively.

The results indicated that:

1- There were no significant differences in body weight, body weight gain and feed conversion ratio between chicks fed control diets and other treatments in different growth periods.

2- Chicks fed control diets or diets containing 10% MDP (T_4) significantly consumed less feed than the other dietary treatments during starter (0-6 wks.) and whole experimental periods (0-12 wks.).

3- Carcass characteristics parameters (dressing, giblets, breast , thighs, drumsticks and wings %) showed insignificant figures when chicks fed diets containing MDP compared to those fed control diets.

4- Tibia characteristics, it worth to note that the birds that fed different levels of MDP (T_1 – T_4) reflected the lowest figures compared with control diets.

5- Economic evaluation, the best economical efficiency value was demonstrated when chicks that fed 10% MDP and the value was 61% more when compared with that of chicks that fed control diets.

The second Experiment:

This experiment was conducted to determine the effect of adding date waste (Mid rib of date palm, MDP) as a partial or completely replacement of wheat bran in the diets of growing chicks with or without some feed additives (enzyme mixtures and sodium sulphate) on the growth performance, carcass traits and economic efficiency. Three levels of MDP representing 0.0 (control), 2.5 (T_1) or 5.0% (T_2) were used during starting period, while during the growing period they turned to 0.0(control), 5, 10% and during the finishing period they switched to 0.0 (control), 7.5, 15% were used to replace wheat bran in six dietary treatments. Starter, grower and finisher T_3, T_4 and T5 diets were the same as T_2 diets but supplemented with 200g Allzyme / Ton, 5.0 Kg Zado / ton and 1.0Kg anhydrous sodium sulphate (ASS) / ton respectively. 180 unsexed one day old hybreed local strain (Saso × Gemmizah) chicks were distributed equally into 6 dietary treatments in 3 replicates of 10 birds each. At the end of the experiment 3 birds from each treatment were randomly selected and slaughtered for carcass and tibia measurements.

The results indicated that:

1- Chicks fed different levels of MDP T_1 or T_2 diets reflected the lowest insignificant results in live body weight gain and worst feed conversion ratio compared with the control group.

2- chicks fed MDP + different feed additives (T_3, T_4 and T_5) gave higher live body weight gain compared to those fed control diets and chicks fed diets containing MDP + Zado (T4) or MDP + ASS (T5) supported the highest body weight gain and gave the better insignificant feed conversion ratio compared with the other treatments.

3- No adverse effects of MDP inclusion at different levels with or without different feed additives on carcass characteristics and tibia measurements.

4- The results of economical evaluation showed that date palm waste (MDP) could be included at 5, 10 and 15% in starter, grower and finisher diets respectively supplemented with 5.0 kg Zado or 1.0 kg sodium sulphate / ton diets in order to get higher economic efficiency without adverse effects on productive performance or carcass traits of chicks until 12 weeks of age.

Keywords: Performance, fiber, enzyme, mid rib of date palm, tibia characteristics, economic efficiency.

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