EFFECT OF REPLACING YELLOW CORN BY BAKERY BY-PRODUCT ON BROILER PERFORMANCE

M. S. Ragab[*], M. M. Namra and A. M. R. Osman,
[*]Fac. of Agric., Poultry Production Dep. , Fayoum Univ.
Animal Production Research Institute, ARC, Dokki, Egypt.

Abstract: *This study was conducted to investigate the effect of replacing yellow corn (YC) by bakery by-product (BBP) on growth performance, carcass traits, blood constituents and economical efficiency of broiler chicks. Three hundred un-sexed Arbor-Acres broiler chicks at one-week of age were divided into ten treatments (30 bird each), each treatment contained 3 replicates of 10 birds each. The experimental treatments were as follows:*

Treatment 1 (T_1)   A corn soybean diet and taken as a control (NRC requirements).
Treatment2(T_2)25% of YC in $T_1$was replaced by BBP(adjusted to NRC energy requirements).
Treatment3(T_3)25% of YC in $T_1$was replaced by BBP (non adjusted to NRC energy requirements).
Treatment 4 (T_4) T_3 plus .0.05 % Xylam (B-xylanase and α-amylase).
Treatment5(T_5)50% of YC in $T_1$was replaced by BBP (adjusted to NRC energy requirements).
Treatment6(T_6)50 % of YC in $T_1$was replaced by BBP (non adjusted to NRC energy requirements).
Treatment 7 (T_7) T_6 plus .0.05 % Xylam.
Treatment 8 (T_8) 75% of YC in $T_1$was replaced by BB (adjusted to NRC energy requirements).
Treatment 9 (T_9) 75 % of YC in $T_1$was replaced by BBP (non adjusted to NRC energy requirements).
Treatment10 (T_{10}) T_9 plus .0.05 % Xylam.

Live body weight (LBW): *Chicks fed diet 10 had the highest values of LBW at 14 and 21 days of age, and . Chicks fed diet 7 had the highest values of LBW at 28, 36 and 42 days of age. **Live body weight gain (LBWG)**: Chicks fed diet 7 had the heaviest LBWG during the periods from 7 to 28 and 7 to 42 days of age, while chicks fed diet 10 had the heavier LBWG during the period from 29 to 42 days of age as compared with the control (diet 1) and the other diets at the some periods. **Feed intake (FI)**: Chicks fed the control diet had the lowest FI during the periods from 7 to 28, 29 to 42 and 7 to 42 days of age. **Feed Conversion(FC), crude protein conversion (CPC) and caloric conversion ratio (CCR)**: Chicks fed diet 2 had the best FC and CPC during the periods from 29 to 42 and 7 to 42 days of age. Whereas, chicks fed diet 10 had the best CCR during the periods from 29 to 42 and 7 to 42 days of age. **Growth rate (GR):** Chicks fed diet 7 had higher GR values at the two periods(7 to 28 and 7 to 42 days). **Carcass characteristics:** Chicks fed the control diet had the highest value of abdominal fat whereas, chick fed diet 10 had the lowest value of abdominal fat as compared with the control or the other groups. **Serum constituents:** Chicks fed diet 7 had the highest value of GOT, total protein and albumin. **Chemical composition of broiler meat:** The highest fat% value was observed for the group fed diet 4, while the lowest fat % value was observed for the group fed diet 10. Carcass part significantly affects (P≤0.01 and P≤0.05) protein, fat, ash and NFE %. Front part had higher protein, ash and NFE % than rear part, while, rear part had a higher fat % than front part. **Mortality%:** Obtained results indicated that the percentage of mortality was 3.33 % in chicks fed diet 1,5 and, 8 as compared with the other groups during the starting period. Whereas, chicks fed diets 3 and 6 had the highest mortality % during the finishing and total periods. **Economical efficiency (EEF):** Chicks fed diet 9 gave the best economical and relative efficiency then chicks fed diet 6 when compared with the other treatments or the control. Whereas, the birds fed the control diet had the worst values. It can be concluded that BBP can be replaced from YC at level 75% in broiler diets to get best performance and highest income per chicken.*