IMPROVEMENT OF NUTRITIONAL VALUE OF LOCALLY BROAD – BEANS AS A SUBSTITUENT FOR SOYBEAN MEAL IN BROILER DIET

ABSTRACT

This study was conducted in the Poultry Farm of the Animal Resource Dept., College of Agriculture , University of Baghdad , from September , 1st , 2001 to November , 11 , 2001.

The objective of the study was to investigate the effect of part or all substitution of soybean meal by raw , coocked and germinated local broad beans on the performance of Fawbro broiler at 15-56 days of age.

A number of 600 day old Fawbro broilers chicks were used. The birds were randomly distributed to seven treatment groups with three replicates per treatment.

The treatmet groups were as follows :

T0- Control group : ٢0% S.B.M + 0.0% broad bean.

T1- Treatment one : ١0% S.B.M. + ١٨.٣% raw broad bean.

T2- Treatment two : ١0% S.B.M. + 18.3% cooked broad bean.

T3- Treatment three: ١0% S.B.M.+18.3% germinated broad bean.

T4- Treatment Four : 0.0% S.B.M. + 36.6% raw broad bean.

T5- Treatment Five : 0.0% S.B.M. + 36.6% cooked broad bean.

T6- Treatment six: 0.0% S.B.M. + 36.6% germinated broad bean.

Abstract

The results showed that :

1- No significant differences in live body weight at 4 and 8 weeks of age , but significantly decreased ($P < 0.05$) in live body weight of birds in T4 (36.6% raw broad bean) in the last 6th week of age.

2- No significant effect in body weight gain between the control group and other treatment groups (T1-T6).

3- Deterioration ($P < 0.05$) in daily feed intake of birds of T4 at the end of 8 week of age.

4- No significant effect in feed conversion rate between control group and other treatment (T1-T6).

5- High significant effect ($P < 0.01$) in mortality rate between birds of T4.

6- No significant effect in Abdominal fat percentage between control group and other treatment groups (T1-T6) .

7- An important in dressing percentage rate of birds in T3 (18.3% germinated broad bean) comparing with control group and other treatments groups.

8- No significant effect in the percentage of Heart , Pancrease , spleen and bile sack weights and intestine length (cm/100 gm body weight). However significant differences in percentage of liver , gizzard and kidny were found among the different treatment groups.

9- Highly significant differences ($P < 0.01$) in the main carcass cut-up parts were found among the different treatments groups.