

FULL FAT SOYBEAN MEAL AS A SUBSTITUTE FOR SOYBEAN MEAL IN BROILER RATIONS

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Full fat soybean meal (FFSBM) is the most popular protein source in the world livestock industry. However, FFSBM has not been properly investigated in Sri Lankan context. Therefore, in this study soybean meal (SBM) was replaced by FFSBM in broiler rations. Four diets were formulated by incorporating locally produced FFSBM (0, 10, 20 and 30%) as a replacement for SBM in starter and finisher rations. Day old broiler chicks were randomly assigned to four diets, each with five replicates of ten birds each. Body Weight Gain (BWG) and Feed Conversion Ratio (FCR) were calculated for a period of 42 days. Retention of dry matter, energy, protein and fat were estimated by total collection method during the starter period. At the end of the experiment, carcass weight was measured and dressing percentage was calculated. Data were analyzed using One Way Analysis of Variance in SAS. Birds fed with 20% FFSBM in starter period had the lowest BWG and FCR ($p < 0.05$). However, FCR of the birds were not significantly different ($p > 0.05$) among the diets during finisher and total study period. The lowest BWG was recorded for birds fed with 30% FFSBM for the total study period ($p < 0.05$). Average feed intake of birds were not significantly different ($p > 0.05$) among diets. Retention of dry matter and crude protein were same among different diets ($p > 0.05$). Birds fed with 0% FFSBM had the lowest energy retention ($p < 0.05$). Highest fat retention was obtained in birds fed with 30% FFSBM diets. Thus, it can be concluded that FFSBM can be incorporated into broiler rations up to 20% rate, without compromising broiler performance and safety of the diet.

Keywords: Body weight, Broiler, Digestibility, Full fat soybean meal, Soybean meal