

Extrusion enhances metabolizable energy and ileal amino acids digestibility of canola meal for broiler chickens

ABSTRACT

The aim of the current study was to determine the effect of extrusion process on apparent metabolizable energy (AME), crude protein (CP) and amino acid (AA) digestibility of canola meal (CM) in broiler chickens. A total of 36, 42-day-old broilers were randomly assigned into adaptation diets (no CM or 30% CM) with six replicates. After 4 days of adaptation period, on day 47, birds were allowed to consume the assay diets that contain CM or extruded canola meal (ECM) as the sole source of energy and protein. Following 4 h after feeding, the birds were killed and ileal contents were collected. The results showed that ECM had greater ($P < 0.001$) AME (10.87 vs 9.39 MJ/kg) compared to CM. The extrusion also significantly enhanced apparent ileal digestibility of CP and some of AA such as Asp, Glu, Ser, Thr and Trp. In conclusion, the extrusion treatment appeared to be a practical and effective approach in enhancing the digestibility of AME, CP and some AA of CM in broiler chickens.

Keyword: Broiler; Canola meal; Digestibility; Extrusion