

## The effects of dietary energy levels on the carcass composition of the broilers

### ABSTRACT

A study was conducted to determine the carcass composition of broilers when fed with three varying levels of dietary energy (3,000, 3,200 and 3,400 kcal/kg ME) at 20% crude protein and 0.79% Total Sulphur Amino Acid. The results showed that there was a significant ( $p < 0.05$ ) increase in the ME intake of the chickens when the ME of the diet increased. Other factors like the protein intake, dressing percentage, weight gain and feed intake were not significantly affected. On the carcass, the increasing dietary ME levels resulted in a significant ( $p < 0.05$ ) decrease in the carcass protein percentage. Similarly, the dietary ME produced a significant ( $p < 0.05$ ) increase in the amount of and fat percentages of breast meat, thigh meat, and drumstick meat with a significant reduction in the protein percentage. There seemed to be an inverse relationship between the percentages of protein and fat. An increase in fat percentages always resulted in similar reduction in the protein content of the meat. These results also showed major differences between the white and red meat of the chicken.

**Keyword:** Abdominal; Breast; Carcass; Dietary energy levels; Drumstick; Protein and fat; Thigh