

**Comparative Feeding Value of Quality Protein Maize and Normal
Maize in Broiler Chicken**

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ABSTRACT

The present study was conducted to compare the performance of broiler chicken fed quality protein maize (QPM) and normal maize (NM). A feeding trial of five weeks duration was undertaken in a completely randomized design with three dietary treatments, normal maize diet, 100% QPM diet replacing maize completely and 50% QPM diet replacing 50% of normal maize. Two hundred and seventy day-old chicks were divided into three dietary regimes with six replicates having 15 chicks in each replicate. The present QPM variety, HQPM-1, had higher levels of lysine, arginine and tryptophan but lower leucine than NM. There was no significant difference ($P>0.05$) in body weight gain with QPM supplementation during the experimental period. The feed intake was similar ($P>0.05$) during 0-3wk of age. Better ($P<0.001$) FCR was observed in both the QPM diets during 0-3wk of age. However, during 4-5wk and overall phase, lower ($P<0.001$) feed intake and better ($P<0.001$) FCR was observed in 100% QPM diet. No significant difference ($P>0.05$) was observed in development of duodenum, jejunum, ileum and caecum. It could be concluded that feeding of quality protein maize (on amino acid adjustment) resulted in similar body weight gain like that of normal maize but with a better efficiency in broiler chicken. Quality protein maize with a higher lysine content will reduce the need for supplemental lysine in the broiler diet.

Keywords: Broiler chicken, Gut development, feed efficiency, Quality protein maize