

## **Performance of broiler chicken fed diets containing different inclusion levels of turmeric (*Curcuma longa* L.) rhizome powder as a feed additive**

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An experiment was conducted to study the efficiency of turmeric dietary rhizome powder on performance of broilers at different inclusion levels. Basal diet was supplemented with turmeric (*Curcuma longa* L.) at three different levels: 1g/kg feed, 2g/kg feed and 3g/kg feed with a control treatment. Thirty unisexed broiler chicks of Cobb strain at 21 days old were randomly allocated to each replicate of different treatments, and each treatment was replicated thrice. Each test diet was fed *ad-libitum* from 21<sup>st</sup> to 44<sup>th</sup> day. Total feed intake, weight gain per bird, feed conversion ratio, live weight at 45<sup>th</sup> day, carcass weight and dressing percent were the parameters determined. Data was analyzed using Statistical Analysis Software (Version 9.0). The results revealed that the significant difference ( $P<0.05$ ) among differently treated broiler flocks was observed for total feed intake, weight gain, live weight at 45<sup>th</sup> day, carcass weight dressing percent and mortality. Further, the statistical analysis also revealed that the weight gain per bird ( $1483.0\pm 22.1$ g), live weight ( $2425.0\pm 45.4$ g) and carcass weight ( $1990.0\pm 38.4$ g) were significantly higher ( $P<0.05$ ) in broiler flocks treated with turmeric at 3g/kg feed. Feed intake also significantly lower in flock treated with reduced turmeric at 3g/kg feed. The dressing percent ( $86.4\pm 1.7$ ) was significantly higher ( $P<0.05$ ) when the birds were fed with turmeric in 2g/kg feed. From the study, it was concluded that the turmeric rhizome powder at the rate of 3g/kg feed would have the potential of increasing the performance of broilers in terms of some growth and yield traits. However, further research related to mechanism of the action of turmeric and its interaction with other factors of production is necessary.

Key words: Broiler, feed conversion efficiency, rhizome, turmeric

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