GROWTH AND ECONOMIC PERFORMANCE OF BROILER CHICKENS FED TUMERIC RHIZOME POWDER (CURCUMA longa)

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ABSTRACT

This study was conducted at the University of Uyo Teaching and Research Farm to evaluate the impact of turmeric rhizome powder (TRP) supplementation on growth performance of broiler chickens and cost efficiency of broiler production. A total of 120 Ross 308 strains of broiler chickens were divided into four treatment groups, which were further replicated three times with 10 birds each per replicate in a Completely Randomized Experimental Design. The experimental groups were made up of the birds on the control diet (T1), and three experimental groups that were fed diets with TRP supplementation at 200g (T2), 400g (T3), and 600g (T4) per 100kg of feed.

ABSTRACT

The experiment lasted 8 weeks, during which data on weight gain, feed efficiency and cost efficiency were collected. Analysis of Variance (ANOVA) was adopted to detect significant differences between the treatment means while post hoc analysis using Duncan Multiple Range Test further differentiated the means. The results revealed that the birds on T3 diets (400g TRP) exhibited the highest weight gain (1508.33g), demonstrating the potential of TRP supplementation at that level of inclusion to enhance broiler growth performance. Furthermore, the cost analysis reveals that the cost per kilogram weight gain was least in the treatment fed 400g of TRP (N959.00). Equally, the revenue and the gross margin was also highest in the treatment fed 400g of TRP (N1885.00, N439.00). In contrast, exceeding this level of 400g supplementation, as observed in the T4 group (600g TRP), led to an increase in production costs without any proportional improvement in weight gain.

INTRODUCTION

1. High population Increase in demand for meat
2. Broiler production can resolve high demand.
3. High cost of production has led to search for alternative and organic feed resources
4. Tumeric supplements is capable of eliciting physiological responses when added to the broiler diets

OBJECTIVES

1. Growth performance.
2. Effect of Turmeric Rhizome Powder.
3. Cost Efficiency

1. data collected
2. weight
3. cost

CONCLUSION

•Supplementation at level of 400 grams per 100kg of feed:

v Improved growth and feed efficiency.

v Reduced production costs and increased profits.

v Higher levels had negative economic effects.