

## News &amp; Comments

**Growth Profit Analysis of Five Chicken Strains in Southern Nigeria***David I. Onyemachi*

Traditional methods of production and marketing dominate the subsector of cattle in Nigeria. Due to factors such as the rising human population, urbanization, the high price of chicken meat, and the low output of native chickens, which was typically supplemented by importation, the gap between demand and supply for poultry products is still very wide. Crossbreeding native chicken with alien strains also significantly increased body weight at 12 weeks. However, several studies found diverse results regarding the impact of day-old chick weight on the growth rate of native chickens.

Comparing male and female broilers according to sex revealed that males had larger breasts and backs but smaller legs.

Studies on the growth performance of broiler chickens showed that body weight, body weight gain, feed consumption and conversion ratio were influenced by the genotype of the birds.

The study was carried out at the Poultry Unit of the Teaching and Research Farm, the Federal University of Technology, Akure, Ondo State, Nigeria. A total of 300 birds comprising five strains which were a normal feather, naked neck, frizzle feather, Fulani ecotype and Hubbard broiler were used for the experiment at 60 birds per strain. Throughout the study period, regular and sporadic health management methods were closely followed. The amount of profit made from rearing the five chicken strains was estimated using the budgetary model. The Statistical Analysis System (SAS) 24 Version 13 was used to examine the data.

The starting weight of the various strains varied significantly ( $p < 0.05$ ). When Hubbard broiler chickens were weighed, they were discovered to be heavier than the native chickens of Nigeria. This can be because the chickens are growing faster and bigger than the native chickens in Nigeria. The findings demonstrated that native birds had lower beginning weights than foreign chicks. The starting weights of native birds were reported to be lower than those of exotic birds in earlier research. The results of the current investigation demonstrated that alien genotypes of hens had superior growth performance to native genotypes. The differences in the birds' growth performance that were observed in this study were likely caused by their genotypes. Consequently, the results were equivalent and did not demonstrate a significant difference in profitability between the Fulani ecotype, one of the indigenous genotypes of Nigeria, and the Hubbard broiler genotypes (exotic strain). Frizzle feather and naked neck were found to have comparable gross margins, net farm income, return on investment, and benefit-



cost ratios with values of x65,000, x60,726.68, 165.14 % and 2.65, respectively.

The results for normal feathers were less favourable than those for the other indigenous genotypes of Nigeria. The study's findings revealed that strain and sex significantly influenced growth performance as well as carcass and organ features. The majority of the metrics demonstrated that Hubbard meat-type hens performed better in terms of growth. The majority of the metrics demonstrated that Hubbard meat-type hens performed better in terms of growth.

In comparison to other native strains, Fulani ecotypes performed better than others in terms of growth performance, characteristics of the carcass and organs, and profitability assessments, while normal feather chickens performed worse.

#### **JOURNAL REFERENCE**

A.J. Atansuyi, O.D. Ilori, C.A. Chineke and O.T. Adebayo, 2022. Growth performance and profitability analysis of five-chicken strains in South Western Nigeria. *Int. J. Poult. Sci.*, 21: 38-49.

#### **KEYWORDS**

Indigenous genotypes, profitability, chicken strains, carcass characteristics, growth performance

