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Meat Yields and Sensory Evaluation of two Commercial Hybrid Strain of Broiler Chicken in Nigeria

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Abstract

The research was conducted to evaluate the effect of sex and strain on the meat yields and sensory evaluation of an exotic and an improved local commercial hybrid strain of broiler chicken in Nigeria. It was conducted at the poultry unit of the teaching and research farms of Ebonyi State University. One hundred and ninety two (192) day old broilers comprising of 96 each of ross 308 and funaab alpha strains of broiler chicken were randomly allotted to four treatment groups in a 2 x 2 factorial experimental design. Each treatment was replicated 3 times with 16 birds per replicate. The birds were reared for 56 days. At the end of the rearing period, 12 birds (one per replicate) of average body weight were selected and slaughtered. Different meat yield parameters were recorded. Data collected were analysed using the general linear model of minitab 18 software. There were no significant differences in the effect of sex on the meat yields while there were significant differences in the effects of strain on the defeathered weight (1958 g, 1576.67 g), breast meat % (28.22, 9.44), thigh meat % (10.39, 5.90), drumstick meat % (9.17, 5.18), breast bone % (4.4, 2.88), thigh bone % (2.59, 1.75) with the ross 308 having the higher values. In the interaction effect of sex and strain on the meat yield, there were significant differences in the live weight (2400 g, 1866.67 g), defeathered weight (2166.67 g, 1533 g), breast meat % (26.15, 8.38), thigh meat % (10.87, 5.31), drumstick meat % (9.35, 5.15), breast meat to bone ratio (6.39, 2.86) with the ross 308 male recording the highest values while the funaab alpha male recorded the lowest values. In the sensory evaluation, the funaab alpha had the better acceptability (7.83, 5.1). funaab alpha was observed to have a higher coefficient of variation in most of the parameters measured. Ross 308 had a higher meat yield while the funaab alpha was more acceptable and a higher variability in meat yield which suggests the need for more selection for meat yield in the funaab alpha.

Keywords: funaad alpha, hybrid strain, meat yield, ross 308, selection