

Prediction of live body weight in exotic turkey (*Meleagris gallopavo*) using linear body measurements in South-West Nigeria

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1 ABSTRACT

The objective of this study was to predict the live body weight of exotic turkey using linear body measurement. Data on linear body measurements collected from one- hundred and two (102) exotic turkeys at the age of six month were used to predict the live body weight of the turkey and determine the effect of sex on the variables. Sex had a significant effect ($p < 0.05$) on virtually all the variables in favour of the male except on body weight and thigh length. The body weight, shank length, thigh length, body length, wing length, wing span and breast girth for males were 8.84 kg, 9.97 cm, 23.40 cm, 76.27 cm, 35.87 cm, 80.27 cm and 60.20 cm respectively, while the corresponding values for female were 8.16 kg, 8.31 cm, 22.29 cm, 68.47 cm, 32.93 cm, 73.65 cm and 57.24 cm. The correlation coefficients between body weight and the linear measurements in the two sexes were positive and mostly significant in male. It ranged between 0.471 and 0.859 in male and 0.031 and 0.539 in female. Coefficient of determination was highest (0.481) in breast girth and followed by body length (0.399) in simple linear regression. The coefficient of determination among the multiple regression models ranged between 0.409 and 0.671. Live body weight of six month old exotic turkey could be predicted using simple and multiple linear regressions.
