

# GROWTH PERFORMANCE AND EGG CHARACTERISTICS OF SOME PHENOTYPES OF QUAIL (COTURNIX SP.) RAISED IN THE SUDANO-GUINEAN ZONE OF CAMEROON

F. Djitie Kouatcho<sup>1\*</sup>, S. Mamoudou<sup>1</sup>, N. Mweugang<sup>1</sup>,  
H. Mekuiko Watsop<sup>2</sup>, S. Kepawo<sup>1</sup>,  
R.M. Radu-Rusu<sup>3</sup>, M.G. Usturoi<sup>3</sup>

<sup>1</sup>Laboratory of Applied Zoology, Faculty of Sciences, University of Ngaoundéré, Cameroon

<sup>2</sup>Department of Animal Productions, School of Veterinary Medicine and Sciences, University of Ngaoundéré, Cameroon

<sup>3</sup>Iasi University of Life Sciences, Faculty of Food and Animal Sciences, Iasi, Romania

\*e-mail: [franckdjitie@gmail.com](mailto:franckdjitie@gmail.com)

## Abstract

The present study was conducted from July to August 2020 in the city of Ngaoundéré, Cameroun, to evaluate the effect of quail phenotype on the growth performance and egg characteristics. For this purpose, 144 quail (48 birds) of each of the white, grey and spotted white phenotypes were used. For this suppose 144 quail (48 animals for each of the white, grey and spotted white phenotypes) aged 4 weeks and with an average live weight of  $65.18 \pm 12.34$ g were used. For each phenotype, birds were grouped into 3 groups of 16 (8 males and 8 females). Water and feed were served ad libitum during the 4 weeks of the trial. 15 eggs per phenotype were randomly selected and individually broken, from which internal parameters were assessed. Data were collected on growth performance, carcass characteristics and some reproductive traits. Main results show that independently of individuals' sex, parameters like feed intake, live weight and weight gain were significantly lowest in the white phenotype ( $472.32 \pm 37.66$  and  $179.64 \pm 14.24$  g respectively) compared to the spotted white and grey phenotypes which were otherwise comparable. Carcass yield was not significantly affected by phenotype, regardless of sex. However, the highest carcass yields were recorded in the grey phenotype compared to spotted white phenotype which had lowest values. Although egg weight and volume were not significantly affected by phenotype, shape index was significantly influenced and the highest values were found in white quails ( $78.82 \pm 2.8\%$ ). Spotted white quails had thicker eggshells than the other phenotypes. The spotted white quails laid eggs with a better Haugh index and the grey quails with a higher edible matter content (albumen & yolk). Based on the results obtained, it can be concluded that the spotted white quail phenotype is more suitable for growth as it showed the best weight gain and shell quality, although grey quails showed high proportions of edible matter.

**Key words:** Quail, Sudano-Guinean zone, phenotypes, growth, egg characteristics