

News

Variations in Morphometric Traits of Muscovy Ducks

Rasha Kamal

The two most often raised genera of ducks are the Muscovy duck (*Cairina moschata*) and common duck (*Anas platyrhynchos*), also referred to as local and foreign ducks. On a small scale in rural areas, Muscovy duck is an essential component of the local poultry industry. The most frequent way to measure genetic variation within and between livestock breeds is genetic characterisation based on molecular analysis, but this method is expensive and high-tech. Variations in morphometric parameters support breeding and selection strategies for Muscovy ducks' genetic improvement. Its widespread characterisation research and commercial production have not been the subject of any prior studies. To better understand the phenotypic, genetic, morphological, biochemical, and immunological traits of Muscovy ducks, the current study was conducted.

The research was carried out at PNG UNRE Poultry farm, Vuda. In the experiment, 38 Muscovy ducks of the laying age group—Chocolate n = 7, Lavender n = 5, Silver n = 7, and White n = 19—were employed. The following factors were measured in this study: plumage colour, beak length, shank length, body length, weight, body size, and neck length. Bar charts in Spreadsheet of Windows 2010 were used to plot the frequency distribution of the entire population of Muscovy ducks.

Social preference may be responsible for the relative distribution of the phenotypes (Chocolate, Lavender, Silver, and White). All quantitative qualities that were examined showed variation, as seen by the considerable differences in means among the four phenotypes. In the same phenotype, it was found that some features were high while others were moderate or low. The current study's findings indicated that, in comparison to Muscovy ducks in Nigeria, the mean body weight for all phenotypes was higher overall. Future genetic improvement among and within duck populations is possible thanks to this variety. The findings show that Silver is the desired Muscovy duck plumage colour that satisfies the criteria for genetic improvement.

The current study found that none of the Muscovy duck phenotypes meets the criteria for the greatest number of attributes evaluated. With some degree of heterogeneity among the specified phenotypes, highly assessed features were dispersed among the phenotypes. The Muscovy duck population that was sampled is thought to have variances because of both genetic and environmental factors. For proper use of Muscovy ducks, phenotypic and genetic diversity should be considered together. All types of livestock exhibit phenotypic variations between species and individuals.



JOURNAL REFERENCE

Limai Lan and Leonie Worowan, 2021. Variations in morphometric traits of Muscovy ducks measured at PNGUNRE poultry farm. *Int. J. Poult. Sci.*, 20: 243-248.

KEYWORDS

Muscovy duck, plumage colors, morphometric traits, economic traits, phenotypic diversity

