

News & Comments

Egg Weight was Unrelated to the Haugh Unit-based Grading System in the Philippines

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In the Philippines, chicken eggs are the most popular protein-rich food, with a per capita intake of 5.78 kg in 2018. Unfortunately, the normal egg grading and size classification system employed by certain industrial layer farms does not apply to eggs produced by local breeds in rural families. In this regard, the standard egg grading method (based on albumen quality or Haugh Unit) and size categorization system was used to evaluate the size, shape, internal, and exterior quality of chicken eggs. The study's findings were also contrasted with studies from a few places in Asia, Africa, and Europe that included data on egg weight and Haugh Unit values for native breeds and commercial hybrids.

The Institutional Animal Care and Use Committee of the University of the Philippines Los Baos' guidelines were followed in conducting this investigation. A total of 315 eggs from 14 different chicken breeds were randomly selected. At the NSPRDC, BAI-DA in Tiaong, Quezon, the birds were raised in comparable semi-intensive farm settings, housed by breed, and fed the same feed. Using the SAS CORR technique, the Pearson product-moment correlation coefficients between the size and shape of chicken eggs and their internal and external quality were calculated.

The Haugh unit was substantially linked with albumen height ($r = 0.91$) but not with albumen weight ($p > 0.05$), which is a measure of the viscosity of the thick albumen caused by the high ovomucin content and may therefore reflect the freshness of an egg. On the proportional content of yolk and albumen in the chicken egg, similar significant impacts of hen breed, strain, purebred, and hybrid chickens have already been documented. The Slovak Republic's medium-sized New Hampshire eggs were smaller than the study's giant New Hampshire eggs. The variations in internal components and external ones may have muddled the breed/strain differences in egg quality traits revealed in this study compared to eggs produced in other nations. Consumers, including health and nutrition professionals, will gain a better understanding of the variety of chicken eggs available and an accurate assessment of the sufficiency of nutrients available from eggs, especially in rural areas, by integrating the egg characteristics of Philippine native chickens with the existing "Food Composition Tables".

Like those from fancy-type and bantam-sized breeds, the eggs laid by native Philippine chickens (Banabang Kalabaw, Joloano, Paraoakan, and Palawan Lasak) were little. In comparison to the larger eggs from modified meat-type, egg-type, and dual-purpose chicken breeds, the weight of the yolk, albumen, and shell was lower. Consumers, egg producers, and researchers all benefit from the size classification system based on egg weight because it profiles breed traits for conservation and genetic



enhancement studies.

JOURNAL REFERENCE

O.L. Bondoc, R.C. Santiago, A.R. Bustos, A.O. Ebron and A.R. Ramos, 2021. Grading and size classification of chicken eggs produced by native, egg-type, meat-type, dual-purpose and fancy-type breeds under Philippine conditions. *Int. J. Poult. Sci.*, 20: 87-97.

KEYWORDS

Egg grading, size classification, commercial chicken breeds, egg production, egg yolk, albumen

