Effect of laying house design and cage placement on egg laying and egg weight in laying hens

C. Sánchez¹, J. J. Montilla², I. Angulo³ y A. León³

Abstract

In order to evaluate the effect of laying house type (different width, with open easel (CA) or closed easel (CC) on egg laying and egg weight, a 10 month study was carried out on a commercial farm of 124,000 black sex-link laying hens. The outer lateral rows were identified as lateral rows (HL) and the rows in the middle of the house as central rows (HC). Analysis of variance (one for each laying house) with a fixed effect model that included the row and line variation in and between rows, and a comparison between laying houses was carried out. The overall egg laying and egg weight results significantly favor (P<0.05) CA simple and double laying house in comparison with CC on egg laying (68.1 vs 63.6%) and egg weight (59.0 vs 56.9/g), respectively. No significant difference was observed with respect to cage type. The differences between HL and HC were great and values were even greater for the CC laying houses. The results indicate that the laying house design and the cage placement in relation to laying house air circulation produces a determining effect over poultry productivity, favoring the presence of CA with respect to CC. The favorable results for HL permits recommending laying houses of less width and with CA for tropical climates.

Key words: Laying house design, laying hens, egg laying, egg weight.