

THE EFFECT OF DIFFERENT CONCENTRATIONS OF ORGANIC SELENIUM ON PERFORMANCE INDICATORS OF LAYERS

Vezir Januzi¹, Lumturi Sena², Xhevdet Elezi³

¹Faculty of Agriculture and Environment, Agricultural University of Tirana, Albania

²Faculty of Agriculture, University of Prishtina, Kosovo
email: lumturisena@yahoo.com

Abstract

The objective of this study was to determine the effects of using different concentrations of organic Selenium (Se) supplemented in the feed formulas of laying hens, in their performance indicators. The experiment was conducted for a period of 6 weeks in a poultry farm near Podujevo. 400 Hy-Line Brown layers, were divided into four groups as following: Control Group (K), Experiment 1 (E1), Experiment 2 (E2) and Experiment 3 (E3). For the four groups the same feed formula was applied, but if the control group was fed with the basic feed, the feed formula of the other three consequent ones was supplemented with Organic Selenium (Se) Sel-Plex®, Alltech, inc., respectively 0.2, 0.3 and 0.4 ppm. During the experimental period the following parameters were consistently recorded, monitored and evaluated: live weight, egg production, egg mass, egg weight & its components and feed conversion ratio (FCR). The group supplemented with 0.4 ppm Se showed a tendency for better results of all monitored indicators compared with other groups. Throughout the experimental period E3 showed superiority for live weight against other groups, but differences were not significant to $p < 0.05$. E3 group showed the best FCR, however this is only a tendency, while the differences were statistically non-significant. At E3 is used 3.4g or 2.45% less feed/egg compared with control group, while the E1 and E2 respectively 0.43%, and 0.94% less feed than the control group. E3 group tended ($p < 0.5$) a higher egg production (85.6%) higher than the control and E1 (1.7% more) and E2 (0.7% more). Egg mass showed an improvement at the rate of 4.2% (or 90g). The increase of Organic Selenium inclusion showed a tendency for improving the quality of the egg: a higher egg weight, bigger egg yolk, albumin and shell weight in the group that took 0.4ppm Se. So, performance indicators were not affected by different levels of Se supplemented in the diet of layers.

Keywords: *Selenium, poultry production, control, experiment, egg production, egg weight.*