



Effects of different levels of Canola meal and phytase supplementation on egg shell quality

R. Gaykani^{1*}, M. Zaghari², H. Sayahzadeh³

1. Ph.D. Student of tehran university

2. Assistant Prof. of tehran university

3. Prof. of tehran university

The present study was carried out to investigate replacement of soybean meal by different levels of canola meal with and without phytase addition, by two diet formulating methods. In one method diet was balanced with using the nutrients derived from enzyme in feed formulation and in other method the derived nutrients from enzyme were not taken in to account in formulating the diet. In these experiment 288 layer hens, W-36 Hy-line, strain were selected based on the same production percentage and body weight and assigned in a factorial arrangement with a completely randomized design each in 4 replicates. The factors included 6 levels of canola meal replacement and 3 methods of enzyme addition. The results of this study showed that feed intake, egg production, soft and cracked shell egg percentage, shell thickness, egg specific gravity and shell percentage were not affected by canola meal, enzyme and also interaction between enzyme and canola meal. With increasing of canola meal in the diets egg weight decreased ($P<0.01$). Also egg shell strength, shell ash and calcium percentage decreased by raising canola meal in the diets ($P<0.05$). Additional phytase enzyme on diets significantly increased calcium and phosphorous percentage ($P<0.01$). The effect of canola meal and phytase on toe ash and its Ca and P content was significant ($P<0.01$).

Keywords: Canola meal, Laying hen, Phytase, Egg shell quality

* Corresponding author

Email: gaykani@ut.ac.ir