

BENEFICIAL EFFECTS OF SUBSTITUTING EGG SHELL POWDER ON THE PRODUCTIVE PERFORMANCE OF CHICKEN LAYERS

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An experiment was conducted to study the feasibility of using egg shell powder as a calcium source along with the shell grit in chicken layer feeding at the livestock farm, Eastern university, Sri Lanka. One hundred Hyline white layer strains of five months old were divided into four equal groups and were assigned to four different dietary treatments. The standard layer mash was mixed with different levels of egg shell powder and shell grit such as 100% shell grit (T_1 - control); 75% shell grit + 25% egg shell powder (T_2); 50% shell grit + 50% egg shell powder (T_3) and 25% shell grit + 75% egg shell powder (T_4). Complete Randomized Design was used for this study. The parameters measured were egg size, egg count, egg laying percentage, Feed Conversion Efficiency, body weight gain and number of cracked egg shells.

The results indicated that there were no significant differences ($P < 0.05$) among the treatments for the average egg size, egg laying percentage and body weight gain. However, treatment T_2 showed the highest mean value for average egg size followed by treatment T_3 . The highest mean value for egg laying percentage and live body weight were observed in control treatment T_1 followed by treatment T_2 . Among all treatments, the treatment T_4 imparted a less performance in chicken layers when compared to others. The overall results of this study indicated that the incorporation of egg shell powder along with shell grit in the layer ration will not affect the productive performance of layer chicken, thus it can be substituted with shell grit as the usual practice. Especially, a combination of 75% shell grit and 25% egg shell powder would be the most suitable alternative to 100% shell grit in layer ration.

Keywords: Calcium, Egg shell powder, Layer ration, Shell grit

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