Effect of dietary organic Selenium supplementation on the Productivity, Selenium Distribution in Egg and Blood Hematology of laying quail

Ziaul Islam and Muhammad Ikram

Department of Animal Sciences, Faculty of Sciences Shaheed Benazir Bhutto University Sheringal Dir Upper-Khyber Pakhtunkhwa (Pakistan)
Email: ziaulislam@sbbu.edu.pk

Abstract

The objective of this study was to determine the effect of selenium (Se) enriched yeast on productivity, egg quality, blood hematology and egg Se concentrations in laying Japanese quail. Total of 120 laying Japanese quail at 21 weeks of age were divided in to four groups. Each group consisted of three replicates and each replicate having 10 birds. The laying Japanese quails were given the basic diet without supplementation or with 1.5 mg Se/kg diet, 2 mg Se/kg diet and 3mg Se/kg diet in experimental groups. During the experimental period egg rate and dietary intake were recorded, six eggs were sampled on days 15 and 28 from each treatment group for Se content Determination, while blood was sampled at day 28 for hematological analysis. The results showed that there was no significant difference ($p > 0.05$) in feed intake, egg production, egg quality and blood hematology among treatments. Selenium supplementation from Se enriched yeast markedly increased ($p < 0.05$) egg Se concentration as compared to the control group. The results indicated that Se-enriched yeast could be used in large doses for the production of selenium enriched quail egg without any deleterious effect on the production performance and blood hematology.

Key Words: Se-enriched Yeast, Egg Selenium Content, Laying Japanese quail, Eggs