

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## BLOOD PARAMETERS OF MEAT QUAILS AT 14 DAYS OF AGE SUBMITTED TO DIFFERENT LEVELS OF INORGANIC SELENIUM AND VITAMIN E

Vittor ZANCANELA<sup>\*1</sup>, Antônio Claudio FURLAN<sup>2</sup>, Simara Marcia MARCATO<sup>2</sup>, Daiane de Oliveira GRIESER<sup>2</sup>, Eline Maria FINCO<sup>2</sup>, Caroline Espejo STANQUEVIS<sup>2</sup>, Mariani Ireni BENITES<sup>2</sup>, Tainara Ciuffi EUZÉBIO<sup>2</sup>

\*corresponding author: vitorzoo@hotmail.com

<sup>1</sup>Universidade Federal de Sergipe, Nossa Senhora da Glória, SE, Brasil

<sup>2</sup>Universidade Estadual de Maringá, Maringá, PR, Brasil

Determination of biochemical parameters in the blood is a tool that assists in the diagnosis of metabolic diseases, contributes to the definition of the nutritional profile of a population, and also allows a more detailed clinical evaluation of a population of individuals. The aim of this study was to evaluate the effects of different levels of inorganic selenium and vitamin E supplementation using blood parameters of meat quails at 14 days of age. 2400 one day old quails (*Coturnix coturnix coturnix*), not sexed were housed and distributed in a completely randomized design in a factorial 4 x 4 (levels of inorganic selenium: 0.1125, 0.2250, 0.3375 and 0.4500 mg/kg of feed) x levels of vitamin E: 10, 23, 36 and 49 IU/kg of feed), totaling sixteen treatments with three replicates of fifty quails per experimental unit. Diets were formulated based on corn and soybean meal and formulated to meet the requirements of the birds, except for selenium (Se) and vitamin E (VE). For the evaluation of the blood parameters, four birds per experimental unit were slaughtered at 14 days of age, for blood collection, after undergoing a five hour feeding fast. The blood collection was performed by exsanguination, the samples being collected and conditioned in test tubes, and immediately centrifuged at 3,000 rpm for 15 minutes. The serum was separated and packed in microtubes and stored at - 10°C. The total cholesterol (TC), triglyceride (TG) concentrations and the activity of the enzymes aspartate aminotransferase (AST), alanine aminotransferase (ALT), and creatine kinase (CK) were measured using a spectrophotometer in combination with commercial assay kits. In the TC concentration was verified as a function of the interaction (P=0.0097) between the Se and VE levels. The concentrations were also influenced by a quadratic effect (P=0.0138) related to Se levels and a linear reduction (P=0.0275) as a function of increasing VE. The minimum TC concentration of 124.19 mg/dL was obtained using 0.33 mg Se/kg of feed. The ALT enzyme was influenced (P=0.000) by a quadratic function of the VE level. The estimate of 24.52 U/L for the maximum ALT activity was determined at a level of 31.31 IU of VE/kg of feed. It is concluded that the level of 0.33 mg Se/kg of feed for lower levels of total blood cholesterol, as well as the use of the 10 IU of VE/kg of feed so as not to adversely affect blood parameters.

**Keywords:** alpha-tocopherol, *coturnix coturnix coturnix*, microminerals

Promoção e Realização:



Apoio Institucional:



Organização:

