Some biochemical parameters of blood plasma of turkey-hens following administration of 1,2,4-triasole derivative

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Abstract

The present study involved 180 slaughter turkey-hens of heavy Big-6 type divided into four groups (in triplicate repetition for 15 birds). All the birds were fed with the same standard full-dose mixtures in 5-stage system. The turkey-hens of groups I, II and III were given 1,2,4-triasole derivative (3-(2-pyridil)-4-phenyl-1,2,4-triasole-5-carboxylic acid), which has antibacterial, antifungal and immunomodulating properties, in amount of 50, 75 and 100 µg per 1 dm³ of water. Group IV – control was given water without the additive. The 1,2,4-triasole derivative was given to drinking water, starting from the first day of bird’s life and for the whole rearing period.

The present results of biochemical analysis of blood plasma showed that addition of examined substance significantly reduced concentration of protein, glucose, triglycerides and uric acid as compared to control. It was stated that tested 1,2,4-triasole derivative elevated the level of HDL fraction percentage and alkaline phosphatase activity in blood plasma.

Key words: 1,2,4-triasole derivative, slaughter turkey-hens, biochemical indices

Introduction

Last years the research has focused on finding new additives improving health, stimulating immune reactions and improving performance of animals (Święcicka-Grabowska et al. 1998, Grela et al. 2001). The 1,2,4-triasole derivative (3-(2-pyridil)-4-phenyl-1,2,4-triasole-5-carboxylic acid) is newly synthesized compound which antibacterial, antifungal (Modzelewskas et al. 2001) and immune-modulating properties are being intensively tested (Krauze 2004, Truchliński et al. 2006a). The 1,2,4-triasole derivative was produced by means of chemical synthesis in...