

Animal welfare, etológia és tartástechnológia



Animal welfare, ethology and housing systems

Volume 9

Issue 3

Különszám/Special Issue

Gödöllő

2013

EFFECT OF 8-WEEK NICKEL AND ZINC CO-ADMINISTRATION ON CHOSEN HAEMATOLOGICAL PARAMETERS IN RABBITS.

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Abstract

Changes in some blood parameters after 8-week administration of nickel (E1 17.5 g NiCl₂ per 100 kg of feed mixture) and nickel and zinc (E2 17.5 g NiCl₂+30 g ZnCl₂.100 kg⁻¹ of feed mixture) in granular mixture were studied in female broiler rabbits (*Oryctolagus cuniculus*) (5 rabbits/each group). Groups of rabbits without nickel and–zinc addition served as control (C). In whole blood selected haematological parameters as total white blood cell count (WBC), red blood cell count (RBC), haemoglobin (HGB), haematocrit (HCT), mean corpuscular volume (MCV), mean corpuscular haemoglobin (MCH), mean corpuscular haemoglobin concentration (MCHC), red cell distribution width (RDW), platelet count (PLT), mean platelet volume (MPV) were measured using haematological analyser Abacus junior VET (Diatron®, Vienna, Austria). Zinc supplementation in group E2 caused significant decrease ($P<0.05$) in lymphocytes number count ($6.93\pm 1.42 \cdot 10^9 \cdot l^{-1}$) in comparison with group E1 ($11.08\pm 3.24 \cdot 10^9 \cdot l^{-1}$) and control group ($12.72\pm 1.86 \cdot 10^9 \cdot l^{-1}$). The white blood cell is a possible site of interaction between the two elements. Of the others haematological parameters investigated in this study statistically insignificant changes ($P>0.05$) were observed.

Keywords: Nickel, zinc, haematological parameters, rabbits

ACKNOWLEDGMENTS:

This work was financially supported by the VEGA scientific grant 1/0790/11, VEGA scientific grant 1/0084/12, and APVV grant 0304-12.