

## **EFFECT OF SULPHACHLOROPYRAZINE ON THE GLUTATHIONE AND THE ACTIVITY OF GSH-reductase and GSH-peroxidase IN BROILER'S BLOOD**

**LJILJANA KOSTADINOVIĆ\*, SAVA PAVKOV\*\*, GORDANA DOZET\***

\*Faculty of Biofarming, Megatrend University, Maršala Tita 39,  
24300 Bačka Topola, Serbia

\*\* Institute for Medicinal Plants Research "Dr Josif Pančić", Tadeuša  
Košćuška 1,  
11000 Belgrade, Serbia  
[latimak@tippnet.rs](mailto:latimak@tippnet.rs)

### **ABSTRACT – Effect of sulphachloropyrazine on the glutathione and the activity of GSH-reductase and GSH-peroxidase in broiler's blood**

This report describes an investigation on the effects of therapeutic doses of coccidiocid sulphachloropyrazine on enzymatic and non-enzymatic antioxidative systems in hemolysed blood from broilers (glutathione-GSH, glutathione reductase-GSHR and glutathione peroxidase-GSHPx).

The in vivo investigation were carried out on heavy-line broilers (Arbor acres) of both sexes. One day old broilers were randomly distributed into two groups: Group I- a control group, Group II- a group of broilers inoculated with laboratory derived coccidia species at 21<sup>st</sup> day-of-age.

When symptoms of coccidiosis appeared (30<sup>th</sup> day-of-age), they were treated with therapeutic doses of sulphachloropyrazine (60 ppm).

It was concluded that sulphachloropyrazine therapy resulted in induction of GSH-peroxidase activity, as well as inhibition of GSH-reductase activity in blood hemolysates of infected-treated broilers comparison with the control group and the infected birds.

**Keywords:** sulphachloropyrazine, broilers, blood, glutathione