

THE EFFECTS OF RATION MEDICATION WITH ZooBioR ON SOME PARAMETERS OF MINERAL METABOLISM IN YOUNG CHICKEN

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Birds represent the category of animals with an intense metabolism and a rapid transition of food through the digestive tract, technological stress being also present in the poultry industry. Thus, the exploitation of animals provides for the provision of impeccable microclimate, accommodation and food conditions, which, however, do not exclude the negative impact of technological stress on health, productivity, and quality of products. The role of medicinal remedies is great in the complex process of counteracting the undesirable consequences of the impact of technological stress.

Of great interest is the study of medicinal products with anti-stress, adaptive, and growth-stimulating actions, with positive impact on the health and productive potential of animals. In this context, the medicinal product ZooBioR, the object of our study, is of particular interest. It was successively extracted, using advanced technologies, from the biomass of the cyanobacterium *Spirulina platensis*. The research problem, carried out in the study, managed to take a step forward in the trend of the last decades in veterinary pharmaceuticals as to move from synthetic to natural pharmaceutical products.

The study was conducted on young, healthy laying hens (n=70), divided equally into five groups: one control and 4 experimental. The birds included in the research were analogous in terms of age, physiological state, origin, body weight, and operated under identical conditions. The ration of the birds in the control group was intact, and in 4 experimental groups (EL) it was supplemented with the ZooBioR product, in different doses (5.0; 10.0; 15.0 and 20 mg active substance/kg feed), product which was administered during the study. In order to assess the biological activity of the tested product, the state of health, at the beginning of the study, and subsequently during the study, including at the end of the experiment, the birds were examined, and in 5 hens from each group, the body temperature and respiratory movements per minute were determined. For laboratory research, blood samples were taken in three stages: at the beginning of the study, until the birds' feed was supplemented with the ZooBioR remedy, from 5 random hens; during the study, from 5 birds from each group - approximately 1 month after the start of the study, as well as later, at the end of this study, which coincided with the 129th day of research. It was established that the ZooBioR product taken into study was well tolerated by young chickens during the entire experimental period (129 days), a fact also confirmed by means of the body temperature and respiratory movements. In addition, these clinical parameters were more favorable in hens from the experimental groups, which benefited from the researched product, values that allow us to think of adaptive and anti-stressor properties of this ecological product. The biochemical results highlighted the positive impact of the natural remedy ZooBioR on the mineral metabolism in hens, in the first technological phase of laying eggs, both by the increase at the end of the study of Ca in the serum by about 6-10% and the decrease in three EL of P by 12-26 % respectively compared to the control, trends also confirmed by the Ca/P ratio, which in the 1st investigation was lower, and in the 2nd investigation, on the contrary, higher compared to the control. At the end of the study, Fe in EL 1 and 2 (low and minimal doses) had an increasing trend, and in EL 3 and 4 (high and maximum doses) a decreasing trend compared to the control.

The product ZooBioR, administered to hens in different doses, is well tolerated and has a beneficial influence on mineral metabolism, a fact confirmed both by the evolution of body mass and egg production.