

**PERSPECTIVES FOR THE USE OF THE AUTOCHTHONOUS
ZooBioR REMEDY IN POULTRY**

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Modern poultry farming is characterized primarily by the high efficiency of production, at the expense of scientific and technological performance obtained in this field, as well as the growth of birds in large numbers on limited areas, such as poultry houses. Currently, in poultry are widely used medicinal preparations of synthetic origin, with a number of side effects. Therefore, the study of a new class of medicinal substances, in particular with adaptogenic effect, especially of plant origin, which has approximately the same mechanism of action on the body, is justified. This category of drugs includes the remedy ZooBioR, obtained from cyanobacterium *Spirulina platensis*, tested by us for the first time on young laying hens.

The research focused on elucidating the impact of this medicinal product on the health and productivity of the hens in the first technological phase of laying, was carried out on healthy birds, in physiological conditions of poultry factory. The study involved 70 hens, divided into 4 experimental lots (EL) and 1 control lot (CL). The birds from all four ELs received in addition to the basic ration and the studied remedy, respectively 5,0; 10,0; 15,0 and 20,0 mg active substance/kg concentrated feed. The birds had been permanently monitored, during different stages of the study. In birds in each lot (5 heads each), body temperature and frequency of respiratory movements per minute were determined. At various stages of research, blood was collected for laboratory investigations. During the experiment, separated into lots, eggs were collected and counted, while individual hens were weighed to highlight their health status and well - being, as well as possible side effects of the bioactive product studied for the first time. During birds` handling (determination of body temperature, fixation, individual weighing, blood collection, etc.) to highlight the states of stress, attention was drawn to the birds` behaviour. At the end of the study, 5 hens from each lot were slaughtered. Portions of muscles from the pectoral region and liver were collected. The samples were strictly collected from the same place, in all 25 cases.

Following the monitoring and examination of the hens, in the first technological phase of laying, during the experiment, for a period of 129 days, the ZooBioR product did not induce changes in behaviour or deviations from the normal physiological state. Research has shown adaptive and anti-stress properties of the studied remedy, an assumption based on lower values of body temperature and respiration. It has been established that the tested product positively influenced the hematopoietic function, a phenomenon reflected in better values of the hematogram, as well as the nonspecific resistance of birds, when there are fewer lymphocytes and more heterophiles, values reflected in a positive balance of the heterophile/lymphocytes population. Biochemical investigations have shown positive effects of the tested remedy on protein, carbohydrate, lipid and mineral metabolism. The tested remedy fortified the functional state of the liver, a hypothesis based on better values of the marker parameters of the liver both in blood and liver tissue, values reflected in higher productions in birds treated with this product.

In conclusion, we mention that the ZooBioR remedy has a moderately positive effect of alleviating technological stress, strengthening the health and productivity of both egg production and the body mass of chickens in the first technological phase of laying.