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THE USE OF BIOMASS OF STREPTOMYCETES AS A STIMULATOR OF SOME BODY WEIGHT INDICES IN CHICKENS

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Introduction. Currently, various biologically active substances are used more often used in the breeding of birds as feed additives, which show a growth stimulating effect, but preferably of biological, not synthetic origin. Some of these substances with a stimulating effect on the growth of chickens are represented by the biomass obtained from apathogenic strains of Streptomycetes. The products of microbial synthesis of Streptomycete are used in the form of complex preparations, which supplement the feed ration of poultry, which leads to optimizing the metabolism, the immune system and increase the productivity. In addition to its nutritional value, it also has an antimicrobial and immunomodulatory activity, which promotes food digestion and inhibits the development of pathogenic microflora within the chickens' intestines. The aim of our research was to study the influence of biomass of Streptomycetes administered in food composition on the performance indices of body weight of chickens as well as on some blood indices.

Material and methods. The investigations were conducted within the ILR "Avicola Sărătenii-Vechi" v. Sărătenii Vechi, Telenești district. The biological material was one-day-old Adler's silver chickens. The research was performed on 150 chickens, divided into three groups of chickens (one control and two experimental samples), which were randomly distributed in three groups of 50 chickens per each. The study was performed over a period of 7 weeks. In order to establish the breeding performance for the chickens, identical maintenance conditions, as close as in poultry units, were created.

Results. The analysis of the obtained results revealed that the cumulative consumption of feed during the investigation period was lower in experimental group II, where this index constituted 1969 g, compared with 2034 g in the experimental group I and 2104.6 g in the control group. The dynamics of body weight was higher in the experimental group of chickens, which received biomass of Streptomycetes, indicating that the chickens in experimental group II recorded a 5.1% increase in body weight compared to chickens from the control group. The daily average also was higher in experimental group II, having 5.2% higher compared to the chickens from the control group. At the same time, the consumption of poultry feed was 9.3% lower compared to the chicks from the control group. The analysis of blood indices showed a slight increase of the number of lymphocytes and eosinophils from 4 to 9% in the experimental group II of chickens that received the biomass of Streptomycetes in their ration, which indicates an immunostimulatory action on the chickens' body.

Conclusions. The use of biomass of Streptomycetes in ration of experimental group of chickens had a positive influence on body weight index, which demonstrated a 5.1% increase of body weight compared to the chicks from the control group. The biomass of Streptomycetes stimulated an increase of the number of limbocytes and eosinophils in chickens from the experimental group II, indicating an immunostimulatory effect.