



ePosterBoards Template

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Introduction

One of the main tasks of poultry farming is to find ways to increase the absorption of feed nutrients. The production of compound feeds involves the use of feed enzyme preparations, which allow more optimal assimilation of feed ingredients, reduce fattening time, reduce feed costs.

In order to meet the biological needs of poultry in nutrients, legumes are used in its feeding. This results in a deficiency of sulfur-containing amino acids, which is partially compensated by the addition of sulfates in the amount of 0.3%. Given the results we obtained in previous studies, it was interesting to find out the possibility of including sulfur in the diet of poultry in the form of aquacitrate to replace sulfate.

Material & Methods

The experiment was conducted in the vivarium of the Institute of Animal Biology of NAAS in five groups (16 heads each) of quails, starting from 14 days of age. All birds received complete feed, balanced in nutrients and biologically active substances. The birds of the experimental groups to the diet added sulfur citrate - a solution of hydrated and carboxylated nanoparticles of the element in deionized water with its content in the amount of from 10 to 100 mg / liter. And also added "Natuzim" is a complete enzyme complex that is universal for all types of diets (with a predominance of bran, cake or meal), where a distinctive feature is the phytase that is part of it.

Results

We noted a significantly higher content of non-esterified fatty acids ($P < 0.05-0.01$) in the liver tissues of quails of the first and second experimental groups by 19.9 and 14.13% with a simultaneous decrease in the third and fourth groups by 5.83 and 13, 83%, compared with the birds in the control group. These data indicate the effect of nanoaquacitrate feeding on lipid metabolism in the liver.

Laying of quails during the experiment was the highest in the fourth experimental group, which amounted to 86.10% and exceeded the control indicators by 2% ($P < 0.05$). The egg productivity of quails of the 1-3rd experimental groups was lower than analogues of the control group by 1.59-1.72%.



Conclusions

Therefore, the use of the enzyme preparation in combination with various forms of sulfur improves the productivity of quails and is promising in further studies.