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Haematological indexes of quail of paternal herd for actions of glycinats of microelements and β-carotene

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It is proved that the replacement in the mixed fodder for the quail of paternal herd of inorganic connections of oligoelementss on the complex of glycinat iron, copper, zinc, manganese and cobalt, with microbial β-carotene in doses that meet the needs and half the need of bird in the indicated compounds are stimulated by an erythropoiesis within the limits of physiology parameters and does not influence on leucopoesis.

Oligoelements, β-carotene, quail, blood

The state of health, productivity and quality and safety of products depends on providing nutritious poultry and biologically active substances, especially macro- and micronutrients, which must be in the body of a biologically active form, which allows them to easily be transformed and assimilated.

Among modern sources of minerals for the body of the bird promising compounds are especially amino acids and their derivatives peptides, proteins, nucleic acids, nucleotides and carbohydrates.

The complex connections of microelements own high availability in the organism of bird, stimulate metabolism, improve the productivity, quality and unconcern of products of the poultry farming and well combine with other bioactive substances (by vitamins, carotenes, fat acids).

Development and introduction in practice of the poultry farming modern complex connections sources of microelements envisages the deep and detailed study of their influence on the indexes of the clinical state, morphological composition of blood and productivity of bird.

In the advanced study investigated the effect glycinate complex of copper, zinc, manganese, iron and cobalt with β-carotene biotechnological synthesis (vitaton) on morphological indexes of blood of the quail of paternal herd.

For the experiment was the principle groups analogs formed three groups of quail breeder: two experimental and control 25 goals in each age 5 months, body weight of about 210,44 ± 1,04 g bird kept the rate of 4 females to 1 male in each cell. Equalizing period lasted 15 days, and the main - 90 days.

Health status, performance and reproducible ability quail depends on their availability minerals, especially iron, cobalt and copper, which in combination with β-carotene stimulates erythro- and leucopoiesis.

As a result of undertaken studies it is set that feeding to the quail of complex of complex connections of microelements and microbial β-carotene as in a dose. what answers the requirement of bird in microelements, so in a dose that presents ½ necessities assisted the increase of amount of red corpuscles in blood comparatively with control accordingly on 22,6a on 15,1.

The last comports with the increase of content of hemoglobin in blood of quail of the first and second experience groups accordingly on 6,5a 4,0%. It follows notices thus, that the indicated changes in blood of quail took place within the limits of physiology norm for this type of animals.

Speed of settling of red corpuscles in blood of quail at feeding of different doses of complex of glycinate microelements and microbial β-carotene did not change comparatively with control that also confirms the sufficient providing of organism of bird biologically by active substances that came in composition mineral addition.

One of criteria of estimation of tension of nonspecific immunity of organism there is an amount of circulatory in peripheral blood leucocytes. Yes, for the quail of paternal herd the complex of complex connections of microelements with microbial β-carotene did not because the reliable changes of amount of leucocytes, however assisted the insignificant redistribution of their subpopulations.

Researches showed that correlation of geterofils in blood of quail of paternal herd for feeding of complex of complex connections of microelements from β-carotene in doses, that answered a necessity and presented 1/2 physiology necessity, increased accordingly on 11,6a 9,2 % comparatively with control.

However these changes kept indoors outside physiology parameters for this type of bird.

It is confirmed also by other indexes of leukogram, namely correlation of eosinophils, monocytes and lymphocytes in peripheral blood of quail for feeding of different doses of complex of complex connections of microelements from β-carotene.

Given that the quail blood was found abnormal and immature forms of leucocytes, it can be concluded that the replacement of a quail fodder for inorganic trace their complex connections sufficiently provides the body with zinc, copper, iron, manganese and cobalt, and a precursor of vitamin A - β-carotene and provides processes and erythro- leykopoeza at a physiological level.

Thus, the replacement in the fodder for quail breeder inorganic trace elements in complex glycinate iron, copper, zinc, manganese and cobalt from microbial β-carotene in doses that are need and ½ bird needs in these substances stimulates erythropoesis within physiological parameters and shows no significant effect on leucopoesis.

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