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EVALUATION OF PRODUCTIVITY IN THE STUDY OF POULTRY BIOPHYSIOLOGY

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Annotation
The article discusses the assessment of the productivity of birds in Uzbekistan.

Keywords: physiology, birds, evolution, physiological and morphological differences.

Physiology is the science of life and functions of the body of animals and humans. It studies the processes occurring in a healthy organism, in interaction with the environment. Physiology is the most important scientific basis for a number of veterinary and zootechnical disciplines: diagnostics and therapy, pharmacology, animal feeding and breeding. Knowing the patterns underlying physiological processes, knowing the functions of the organs and systems of the body in relation to the environment, it is possible to purposefully increase the productivity of animals, to carry out veterinary and zoohygienic measures correctly and in a timely manner.
In the study of life processes, physiology is in close contact with the morphological sciences, such as anatomy and histology. It is possible to understand the work of any organ only by knowing its structure, because function and form are inextricably linked . This relationship is a consequence of a long evolution, since with a change in function in the process of adaptation, the structure inevitably changed. Using animals, man developed in them the qualities he needed for himself, which naturally affected the development of individual organs to varying degrees.Advanced molecular genetic evolutionary research, today, reveals the mechanisms of phylogenetic, and partly ontogenetic processes of bird adaptation to a wide variety of habitats and environmental factors.
To date, it has been established that the genome of birds differs from mammals in significant segmental deletions (mutations) and phylogenetic loss of genes, while bird

genomes demonstrate a high degree of evolutionary stagnation in the levels of the nucleotide sequence and chromosome structure.

On a physiological level, this has the consequence that birds show quite a few characteristics in common with reptiles (Reptilia). First of all, the morphological and functional composition of the blood of birds is similar to the uniform elements of reptiles. Also, the thermoregulation of chicks is unstable, while the metabolism of a growing bird organism is characterized by the highest energy consumption among all vertebrates (Vertebrata) animals, the consequences of this are high sensitivity to endogenous fluctuations in physiological constants and gradations of reference values of metabolites, which ultimately affect the state of health and, accordingly, adaptive reserves of animals.

Metabolism is a complex set of functional systems that provide homeostasis in the animal body.

Broiler chickens have physiological and morphological differences, consisting in an accelerated rate of growth and development, as well as hypertrophied development of skeletal muscles, cardiovascular and other systems during certain periods of postnatal ontogenesis.

These processes are a consequence of the genetic program of broilers implemented in the bird's metabolism.

The metabolism of broiler birds has a pronounced discreteness in plastic metabolism, where lipid and protein metabolism play the main role in the early stages of postnatal growth and development of chickens. And the most stressful of them is fat metabolism.An important role in the metabolism of broiler poultry, plastic and energy transformations of cholesterol is played by non-esterified, esterified cholesterol and their conjugated phosphatides - phosphatidylcholine and lysolecithin .

However, many issues of broiler poultry metabolism remain insufficiently covered, including the metabolic circulation of cholesterol, phospholipids associated with it, and the effect of broiler age on it.

Metabolism is a highly dynamic and adaptive set of functional systems that maintain homeostasis in the animal body. The metabolism of broiler chickens is characterized by significant intensity, with a predominance of loads in lipid and protein metabolism, in which cholesterol is one of the connecting links. During metabolism, cholesterol is modified into a fatty acid bound form.

Animals have evolved a system of homeostasis based on the adaptive stability of the functioning of systems that provide vital needs and the integrity of the body.

Vitality at the homeostatic level is reflected in metabolism, which has a certain duality in anabolism and catabolism, which manifests itself, on the one hand, in a genetically

fixed metabolic program, and, on the other hand, in adaptive population and individual assimilation processes . dissimilation reactions, processes.

The cholesterol metabolite undergoes synthetic modifications that provide shunt connections with protein, carbohydrate and other exchanges in the system of lipoprotein complexes.

Esterified cholesterol is one of the main metabolites of lipid metabolism, and at the same time, it sensitively reflects the boundary between the norm and pathology of fat metabolism.

President of Uzbekistan Shavkat Mirziyoyev instructed to allocate 35 million dollars to support the poultry farms of the republic . These funds will be used to purchase poultry food and replenish working capital. Today, more than 1,200 meat and egg poultry farms are registered in the republic. Over the past 15 years, the industry has made a powerful leap forward. For example, in 2005, the country produced three billion eggs and about 40,000 tons of meat. In the past - over 8.1 billion eggs and 473.1 thousand tons of meat.

In accordance with the recommendation of the Ministry of Health of the Republic of Uzbekistan, the rate of consumption of poultry products per capita per year is 208 eggs and 14.8 kg of poultry meat. That is, the domestic demand of the population is covered by 98 percent.

However, due to the rate of population growth, an increase in the percentage of urbanization, and the provision of affordable animal protein, there is a growing need for further development of the poultry industry.

That is why the country's leadership has set the task of not only providing the domestic market in full, but also expanding the export potential. To this end, strategic plans have been approved for the development of existing capacities with a phased increase in egg production to 12 billion pieces and poultry meat to 610 thousand tons, respectively.

Since ancient times, quail has been valued for its marvelous voice, healthy meat and eggs. Caring for this bird is quite simple, it is unpretentious in food, quickly gains weight and becomes able to lay eggs. She consumes approximately 26 grams of food per day. For comparison: to obtain one kilogram of lamb, an average of 25 kilograms of feed is needed, to obtain beef - 26-28 kilograms of feed. And in order for the quail to gain 200 grams of weight, it only needs one kilogram of feed. After the completion of egg production, you can also get a good profit from the sale of its meat.

In the countries of the world, in particular in Germany, the production of organic and environmentally friendly products and the growth of annual demand for them has reached 5-15 percent, in Denmark, Sweden and Switzerland - 30-40 percent. Natural

quail eggs are also popular in Japan and are considered a dietary product. Undoubtedly, the high demand for such products in the world market will open up new export opportunities for farmers and entrepreneurs in our country. Although the quail itself is a small bird, it is obvious that its economic efficiency is very high. Analyze yourself. From the eggs laid out in the incubator, the quail hatches on the 17th day. If quails are properly cared for, at least 90 percent of them will survive. Unlike other birds, the quail starts laying eggs after 40-50 days. In ancient oriental medicine, quail meat and eggs were also considered natural medicines. In particular, they are used in the treatment of many diseases, such as gastric and duodenal ulcers, anemia, migraine, bronchial asthma, nervous system disorders, high blood pressure, diabetes. With radiation sickness, quail eggs have the ability to remove radionuclides from the body. Cosmetologists use tramizine, which is part of them, to lighten the complexion. In Japan, quail eggs are one of the most popular foods among the population.

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