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INFLUENCE OF ADDING VARIOUS VITAMINS AND BIO SUPPLEMENTS TO THE DIET OF CHICKEN ON PRODUCTIVITY

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Annotation:
The article talks about feeding chickens based on the right diet. It is also said about the effect of adding vitamins and minerals to the diet of agricultural chickens on their productivity, brood of healthy offspring and growth. In addition, it is said about the unfavorable situations arising from the failure to provide the necessary vitamins and minerals in the diet of agricultural chickens.

Keywords: egg, egg production, ration, different types of feed, vitamins, minerals, laying hen productivity, biologically active substances

Chickens have provided mankind with eggs and meat since ancient times. According to some reports, today their number is estimated at 24 billion individuals. This is not surprising, because chickens are bred for eggs, meat, down and feathers. They are the main source of protein for humans and, without exaggeration, they are the most useful pets in terms of producing ingredients for various dishes.

One of the important factors in egg production of chickens is a balanced diet. If you properly organize the feeding of chickens, then they will lay eggs all year round. The daily diet of birds should include dry - grain and cereal mixtures, wet - cereals from raw or boiled vegetables, bran, herbs and cereals, as well as top dressing - chalk, salt, vitamins and minerals.

Chickens are considered unpretentious poultry. It is important to combine different types of feed, as birds need them to get the right amount of proteins, fats and carbohydrates. But for their good health and good egg production, it is important that laying hens receive enough useful elements from feed and additives: vitamins and minerals, including for the formation of a normal shell and a full-fledged egg. This issue is especially acute in the autumn-winter period, when the quality of natural food may decrease. Without vitamins, chickens may be less likely to lay eggs, it will be more difficult for young animals to gain weight, and the bird will become more susceptible to disease.

Vitamins are important not only for the productivity of laying hens, but also for their overall health and activity. Each of them contributes to the normal course of certain processes in the bird's body. For example, vitamin A (retinol) - it contributes to normal

growth, maintains a healthy state of the organs of vision. The egg of a chicken that lacks retinol is large, with a beautiful yolk. By the yolk, one can also determine the lack of a substance: it becomes pale, and the egg itself decreases in size. In laying hens, the cornea of the eye dries, immunity deteriorates. Vitamin K (phylloquinone) - this vitamin is responsible for normal blood clotting. Without it, the process of blood coagulation slows down, the frequency of hemorrhages increases, especially in the neck, chest, legs, wings. Hatchability and egg production deteriorate if the substance is not enough, but deficiency does not lead to mass diseases. Vitamin E (tocopherol) - it directly affects the health of the nervous system of the chicken and its ability to reproduce. Thanks to vitamin E, chickens can lay fertilized eggs, but if it is not enough, fertilization will not occur. In addition, the lack of a substance negatively affects the level of immunity and the state of the brain of the chicken. As well as vitamin D (calciferol) - this substance is involved in the metabolism of phosphorus and calcium, directly affects the health of the bones and joints of the bird. With a lack of vitamin D, young animals can develop rickets, a disease that manifests itself in abnormal development and fragility of the skeleton. The egg production of chickens with D deficiency is reduced, the shell becomes loose and less dense.

It is important to note that the productive qualities of chickens largely depend on the content of biologically active substances in the diets. For chickens, calcium, phosphorus, magnesium, sodium, chlorine, sulfur, iron, cobalt, copper, zinc, manganese, iodine are especially important, which must be normalized. Phosphorus is an active catalyst and stimulator for efficient use of feed in the body. With a lack of phosphorus in the diet of a bird, a decrease in egg production and eggshell strength, a weakening of the skeleton, a perverted appetite, and bone diseases are manifested. Magnesium is associated in metabolism with calcium and phosphorus. It activates many enzymes, is involved in fat, carbohydrate metabolism and protein biosynthesis. It has been established that magnesium activates almost all 50 known enzymes. Magnesium affects the activity of the nervous system. Sodium is essential for building tissues, maintaining osmotic pressure, and regulating water, mineral, nitrogen, and fat metabolism. Sodium deficiency in laying hens is manifested by decreased egg production, poor feed utilization and cannibalism. Without sodium, protein and fat metabolism is impossible, its content has a direct impact on productivity. Chlorine in the body is in the form of salts of sodium, potassium, magnesium, calcium and in ionized form. With a lack of chlorine in the diet, its content in tissues and body fluids decreases, the release of hydrochloric acid in the stomach decreases, which leads to a weakening of the digestive power of gastric juice.

Sulfur has a direct effect on the formation of sulfur-containing amino acids - methionine, cysteine, etc. It is part of vitamins (bitin and thiamine) and the hormone insulin. Iron is involved in redox reactions that play an important role in the metabolism and nutrition of the animal. Iron is part of the hemoglobin molecule and some respiratory enzymes. Copper is necessary for normal pigmentation and keratinization of the pen, the formation of nervous tissue, osteogenesis, reproductive function, hemoglobin synthesis in the processes of hematopoiesis. It is part of many proteins, enzymes, is involved in the regulation of

carbohydrate, mineral, water and gas-energy metabolism. Zinc affects the growth, development and reproduction processes. Zinc activates many enzymes. Manganese is necessary for hematopoiesis, takes part in tissue respiration, affects the metabolism of carbohydrates, enhances the effectiveness of vitamins C and B_1. With a lack of manganese in birds, there is a delay in growth and development, a violation of bone formation, a decrease in the strength of the egg shell, and disorders of the nervous system. Iodine is part of the thyroid hormones, determines their physiological activity. Lack of iodine inhibits the formation of thyroxine, resulting in reduced oxidative processes, gas and nitrogen metabolism. Cobalt directly affects the hematopoietic functions of the bone marrow. It accelerates the synthesis of hemoglobin, increases the absorption of iron.

Based on the foregoing, we can conclude that among the environmental factors that determine the normal development and vital activity of the body of chickens, feeding belongs to one of the first places. Proper and rational, biologically complete feeding ensures the health of chickens, their high productivity and reproductive ability, as well as the successful growth and development of young animals. Complete feeding plays an exceptional role in the prevention of various animal diseases. Of great importance is the good quality of feed for obtaining high-grade food.

The imbalance of diets in terms of nutrients and elements, as well as low or excessively plentiful levels of feeding are the main causes of metabolic disorders in animals.

Rational complete feeding in compliance with all zoohygienic requirements ensures high productivity and viability of chickens.

REFERENCES

1. Korobov A., Arzumanyan G. Gidroponnyy zelenyy korm // Sbornik statey po ispol'zovaniyu gidroponnyx zelenyx kormov v kormlenii sel'skoxozyaystvennyx jivotnyx i ptitsy. – LAP LambertAkademicPublishing, Saarbrucken. Deutschland, 2016. – 58 c.
2. Kormleniye sel'skoxozyaystvennoy ptitsy: uchebnik, Fisinin V.I., Yegorov I.L., Draganov I.F., 2011.
3. Lantseva N.N. Aktual'nost' biologicheskogo podxoda k kormam dlya sel'skoxozyaystvennyx jivotnyx / N.N. Lantseva, A.N. Shvydkov // Kormleniye sel'skoxozyaystvennyx jivotnyx i kormoproizvodstvo. – 2011. – № 6. – S. 3–8.
4. Kalashnikov A.P., Fisinin V.I., SHeglov V.V. Normy i ratsiony kormleniya sel'skoxozyaystvennyx jivotnyx. – M., 2003. – 456 s.