

**THE EFFECT OF ADDITIVES ON THE BODY OF ANIMALS
(ВПЛИВ ДОБАВОК НА ОРГАНІЗМ ТВАРИН)**

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У статті розглянуто як впливають добавки на організм тварин, їх переваги та недоліки, а також чи взагалі доцільно використовувати добавки.

Ключові слова: *добавки, тваринництво, здоров'я тварин, дослідження.*

The article desls with the effect of additives on the body of the farm animals, their advantages and disadvantages. It is also discussed there whether it is necessary to use the additives.

Key words: *supplements, animal husbandry, animal health, research*

Formulation of the problem. In recent years, we can observe how the use of various additives in animal feed, such as antibiotics, feed enzymes, probiotics, is growing in popularity. But there is considerable unease about their potential impact on animal health. This problem focuses on the fact that some additives can have a negative effect on the physiological processes of animals, causing the risk of developing diseases, reducing productivity or even threatening life. Therefore, it is necessary to investigate and clarify the effect of different types of additives on the animal body to ensure their optimal health and welfare in production and domestic conditions.

Analysis of recent research and publications. Many scientists are studying the influence of feed additives. We can name a few Levytskyi T.R. [1], Bigun P. [2], Boyko N.V., Karagnyan A.K [3].

Setting objectives. The purpose of our research was to determine the impact of the use of additives on the animal body.

Research materials and methods. Feed additives are feed products that are used to improve the nutritional value of the main feed. The list of additives is quite large: protein, energy, mineral, vitamin supplements, antibiotics, enzyme preparations, probiotics, prebiotics [4], but the research work is aimed specifically at evaluating the impact of the vitamin complex. Vitamins are considered biologically active substances capable of influencing various processes. A lack of vitamins in feed can cause various diseases, digestive disorders, deterioration of wool, teeth, or even death of animals. Vitamins can be divided into two groups: fat-soluble (A, D, E, K) and water-soluble (groups B, C). Most often, vitamins enter the body of animals together with food.

Research results. Research work was aimed at the effect of vitamins on the animal body. We have written about the advantages and disadvantages of each vitamin.

1. Vitamin A (retinol)

This vitamin is needed for normal growth and prevention of infectious diseases. Without this vitamin, chicken blindness can occur. If a pregnant animal is deficient, there is a high risk of abortion. Hypervitaminosis can lead to vomiting, problems with fur.

2. Vitamin D (calciferol)

If the feed does not have enough calciferol at the beginning of the animal's life, there is a high risk of rickets. If this happens in adult animals, then osteomalacia or osteoporosis develops.

3. Vitamin E (tocopherol)

It actively participates in tissue respiration, has a good effect on the process of ascorbic acid synthesis, and is also required for various metabolic reactions. If the body feels its lack, then there is a decrease in sexual ability

4. Vitamin K

Thanks to it, the synthesis of prothrombin and fibrinogen occurs as the main components in the formation of a blood clot. If there is a shortage in the body, then the liver is injured.

5. Vitamins of group B

□ Vitamin B2 is a growth stimulator of the animal body. Thanks to riboflavin, it is possible. If there is not enough B2 in the body, the rate of protein synthesis decreases.

□ Vitamin B1, a sufficient amount helps to regulate metabolism in animals. During thiamine deficiency, all systems will gradually decrease in efficiency. Thiamine enters the body with cake, yeast, bran, grain or green fodder.

Vitamin B3 (pantothenic acid) supports the necessary level of carbohydrate and fat metabolism, helps the process of protein absorption. Leguminous plants, grain fodder and their waste, grass flour, vegetables, and yeast provide vitamin entry into the body. [5,6].

The results of the information analysis indicate that vitamins have a significant impact on the physiological parameters of animals.

Conclusions and prospects for further research. As a result of the literary sources analyzed by us, we can say that supplements such as vitamins are very important for the animal body. Without vitamins, vital metabolic processes in the animal body cannot take place. Vitamins affect the functions of growth, fertility, support the health of the skin and teeth. But there can also be an excess of vitamins (hypervitaminosis), which leads to various diseases or death. Therefore, it is necessary to observe the norms of feeding for all types of animals.

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