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## APPLICATION OF BIOLOGICAL ADDITIVES-PREMIKES IN OSTRICH FARMING

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**Annotation:** This article talks about feeding ostriches, feed additives (Panaroot-98), premixes, and increasing productivity in Uzbekistan - as used in many sectors of agriculture.

**Key words:** vitamins, feed, additives, premixes, increasing productivity, body weight.

### Introduction

The resolution of the President of the Republic of Uzbekistan on additional measures aimed at the development of poultry and strengthening the feed base of the industry was adopted.

In order to ensure food security in the country, as well as the development of poultry and further strengthening the feed base and support for poultry businesses: the State Committee for Veterinary and Livestock Development, the Ministry of Economic Development and Poverty Reduction, the Ministry of Finance, the Ministry of Investment and Foreign Trade and Poultry Industry Association from June 1, 2021, a proposal was

approved to allocate a subsidy from the national budget to poultry farms that pay VAT - for each egg grown and sold on their farms, and for each kilogram of poultry meat ..

As in our country, in our region, exemplary work is being done to keep poultry in industrial and domestic conditions, to increase their productivity. Poultry is one of the seven riches. New projects are being implemented. Systematic work is being done in the community gatherings to develop this network. Poultry farming in each family allows not only to deliver eggs to the house, but also to bring eggs and meat to the table.

It is well known that all kinds of biological additives (premixes) contain vitamin and mineral supplements, amino acids and enzymes. They are used to stimulate growth, development, gain in live weight, as well as catalyze metabolism in fed animals and stimulate productivity during the reproductive season.

Vitamins are especially active vital unstable low molecular weight substances

that are contained in very small but relatively constant quantities. Some vitamins are synthesized in the animal organism itself, while others are formed in the cells of plants and microorganisms. Lack or excess of vitamins causes profound changes in metabolism, which manifests itself in the form of weakness and growth retardation of young animals, low productivity, decreased immunity, and in advanced cases leads to illness, weakening of immunity and death of the animal. Vitamins perform the functions of biological catalysts in the body on their own or as part of enzymes. For ostrich breeding, it is important to note vitamins A, D, E and group B.

Enzymes (enzymes) are specific proteins that play the role of biological catalysts in a living organism. Unlike hormones and biostimulants, enzymes act not on the body of the bird, but on the components of the compound feed in the gastrointestinal tract, without being consumed or accumulated in the body and poultry products. They are designed to destroy the walls of plant cells, increasing the availability of starches, proteins and fats contained in them, which significantly contributes to the absorption of dietary components. The rate of digestion of feed depends on its composition, in addition, the activity of many enzymes is different and depends on the age and physiological state of the organism. In animal husbandry, enzymes are widely used in the form of premixes, dietary supplements and other supplements in order to increase the efficiency of the use of feed nutrients.

Amino acids are the building blocks of which proteins are built. They are carboxylic acids containing one or two amino groups. Amino acids are absorbed from the gastrointestinal tract and enter all organs and tissues with blood, where they are used for protein synthesis and undergo various transformations. More than 20 amino acids are known, which are divided into irreplaceable (enter the body with food and are not synthesized in the body) and non-essential (synthesized in the body from ordinary nitrogen-free metabolic products and assimilable nitrogen) and partially non-replaceable (can be used by the body instead of some essential amino acids for protein production). Promotes catalysis, adequate metabolism and normal brain function. If the body lacks at least one essential amino acid, the formation of proteins is suspended, which leads to a cessation of growth, weight loss, metabolic disorders. In the poultry industry, amino acids are notable for promoting poultry growth and productivity.

Mineral substances are involved in all biochemical processes in the body, are a necessary component of all organs and tissues. For the rapid growth of ostriches and high egg production of adult ostriches, a balanced diet with an optimal content of minerals, mainly calcium and phosphorus, is necessary, with a shortage of which female ostriches produce few eggs. It is important to note that too much calcium in the diet will reduce sperm quality. The imbalance of calcium and phosphorus is detrimental to ostriches, as it causes rickets, twisting of toes and eversion of joints.

By correctly using complex biological additives (premixes), finding their optimal ratios and doses, establishing the correct feeding technique, you can increase the production of ostrich eggs and meat, obtain the optimal ratio of weight gain and survival by improving the digestibility and use of nutrients in feed.

This raises the question: is it possible to formulate such an effective natural feeding without the use of dietary supplements for African ostriches, which are several times larger than their Australian relatives? Such experiments have long been conducted on ostrich farms in many countries, and so far it is impossible to give an unambiguous answer to this question.

However, such natural diets are widely practiced to improve the safety of young stock in African farms located in the Karoo region, South Africa. Due to the warm climate, long sunny days and the abundance of green mass (mainly young alfalfa shoots), the young growth rate does not lag behind the ostriches raised by Western technologies in poultry houses and with the use of dietary supplements.

Although a number of ostrich experts believe that climatic conditions, stress factors and management methods affect the effectiveness of dietary supplements, the main criterion is the composition of the diet. The fact is that plant-based feed contains a large amount of fiber, which is almost not digested in the digestive tract of the bird, which makes it difficult to use other nutrients. Laboratory studies show that fiber absorbs enzymes and vitamins, neutralizes the effects of certain amino acids, and also

makes it difficult to absorb already difficult-to-absorb trace elements like calcium. Although the digestive system of ostriches absorbs fiber and digests feed better than other poultry, nevertheless, some of the nutrients and biocomponents contained in feed, absorbed by undigested fiber and removed from the body of ostriches. The problem of calcium assimilation by the body in sufficient rates to increase the productivity of females remains relevant at the present time.

Therefore, it is logical to assume that the use of dietary supplements will replenish undigested biocomponents and contribute to the development of ostriches and the productivity of adult ostriches. In the case of African ostriches, this is supported by the findings based on ostrich feeding experiments.

The same conclusions came from studies on the feeding of Australian emu. The fact is that, unlike African ostriches, the digestive system of Australian emus poorly assimilates uncrushed grain feed, in particular corn, the grains of which are several times larger than the grains of wheat and other cereals, and the hard shell covering the grain interferes with the work of enzymes to break down the feed.

Summarizing the above, it should be noted that in order to ensure better digestibility of feed and increase the safety and productivity of ostriches, it is necessary to use the most optimal enzyme preparations or create an effective feed mixture from natural products, relying on biochemical knowledge and available natural feed for ostriches.

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