

# **ECONOMIC EFFICIENCY OF COMPLETE FEED PRODUCTION PROVIDED THE USE OF PROTEIN AND VITAMIN SUPPLEMENTS FOR BROILER CHICKENS AGED 1-3 WEEKS 5%**

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## **Abstract**

Feeding of young poultry was carried out with complete feed for broiler chickens aged 1-3 weeks.

The nutritional value of 1 kg of complete feed is 12.5 MJ of metabolic energy. 1 kg of compound feed contains: dry matter - 860 g, crude protein - within 230 g, lysine - not less than 14 g, methionine + cystine - 10, threonine - 9, tryptophan - 2.8, crude fat - 50, crude fiber - not more than 40, sodium - not more than 2, calcium - not less than 8 and phosphorus - 6 g.

Compound feed is balanced with the content of normalized microelements and vitamins, includes enzymes, antioxidant and adsorbent.

The basis of complete feed for broiler chickens aged 1-3 weeks are grain feed, plant protein concentrates, protein-vitamin supplement and fuz oil.

The live weight of broiler chickens at 3 weeks of age is 950 g, with an average daily gain for the period of 45 g. Feed costs for the period of feeding broiler chickens aged 1-3 weeks - 1.17 kg, feed conversion - 1.3 kg, the cost of 1 kg of live weight gain - 15 UAH.

According to the results of the research it is established that the production of complete feed with the use of protein-vitamin supplements for broiler chickens aged 1-3 weeks, 5 % and developed by us, allows to optimize the protein, amino acid, mineral and vitamin nutrition of broilers, affects on the productive qualities of animals positively, provides high efficiency of feed use, meets the requirements of intensive production, and it is characterized by positive economic efficiency.

**Keywords:** broiler chickens, complete feed, amino acids, calcium, phosphorus, feed conversion.

## **INTRODUCTION**

The essential condition for the intensification of poultry industry is the organization of complete feeding, which ensures the formation of high productivity of modern poultry breeds and economic efficiency of production.

## **THE AIM OF THE STUDY**

To study the economic efficiency of complete feed production with the use of protein and vitamin supplements for broiler chickens aged 1-3 weeks 5%.

## **MATERIAL AND METHODS**

To solve this goal it was necessary to develop the recipe for complete feed and protein-vitamin supplement for broiler chickens aged 1-3 weeks, to weigh young animals at the daily and 21-day age, to determine the conversion of feed and the cost of 1 kg live weight gain of broiler chickens.

The research was conducted at the private enterprise Riznychuk I.F., in Ovidiopol District of Odessa Oblast.

Broiler cross ROSS 308 (ROSS 308 BROILER), norms of concentration of energy and nutrients in 1 kg of complete feed for broiler chickens, protein and vitamin supplement for broiler chickens aged 1-3 weeks 5%, complete feed for broiler chickens aged 1-3 weeks.

For the experiment, 100 heads of broiler chickens per day were selected.

Productive qualities of broiler chickens were determined by the dynamics of their live weight and average daily gains, the efficiency of feed use - by the cost of feed per 1 kg of meat poultry growth.

## **THE MAIN RESULTS OF THE STUDY**

According to the latest developments, the feeding of young poultry was carried out with complete feed for broiler chickens aged 1-3 weeks.

The nutritional value of 1 kg of complete feed is 12.5 MJ of metabolic energy. 1 kg of compound feed contains: dry matter - 860 g, crude protein - within 230 g, lysine - not less than 14 g, methionine + cystine - 10, threonine - 9, tryptophan - 2.8, crude fat - 50, crude fiber - not more than 40, sodium - not more than 2, calcium - not less than 8 and phosphorus - 6 g.

Compound feed is balanced with the content of normalized microelements and vitamins, includes enzymes, antioxidant and adsorbent.

Complete feed for broiler chickens was made from crushed grain of cereals (wheat, barley, corn) - 58%, vegetable protein concentrates (sunflower meal, soybean meal) - 35%, soybean oil - 2% and specially designed for the production of feed 5 % protein-vitamin-mineral supplement.

1 kg of protein-vitamin supplement for broiler chickens aged 1-3 weeks contains: metabolic energy - not less than 5 MJ, dry matter - 900 g, crude protein - 220, lysine - 64, methionine + cystine - 62, threonine - 33, tryptophan - 1, crude fat - 10, crude fiber - not more than 20, sodium - 30, calcium - not less than 130 and phosphorus - 47 g.

Protein-vitamin supplement contains plant protein concentrates, critical amino acids, calcium carbonate, monocalcium phosphate, sodium chloride, sodium bicarbonate, prebiotic and premix, which includes trace elements, vitamins, enzyme complex, antioxidant and adsorbent.

The live weight of broiler chickens at 3 weeks of age is 950 g, with an average daily gain for the period of 45 g. Feed costs for the period of feeding broiler chickens aged 1-3 weeks - 1.17 kg, feed conversion - 1.3 kg, the cost of 1 kg of live weight gain - 15 UAH.

## **CONCLUSIONS**

According to the results of the research it is established that the production of complete feed with the use of protein-vitamin supplements for broiler chickens aged 1-3 weeks, 5% and developed by us, allows to optimize the protein, amino acid, mineral and vitamin nutrition of broilers, affects on the productive qualities of animals positively, provides high efficiency of feed use, meets the requirements of intensive production, and it is characterized by positive economic efficiency.

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