

# **ECONOMIC EFFICIENCY OF COMPLETE FEED PRODUCTION PROVIDED THE USE OF PROTEIN AND VITAMIN SUPPLEMENTS FOR BROILER CHICKENS AGED 4-5 WEEKS 5 %**

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**UDC: 636.52 /.58.085.55: 330.131.5**

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## **Abstract**

Feeding of young poultry was carried out with complete feed for broiler chickens aged 4-5 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 220 g, lysine - not less than 13 g, methionine + cystine - 9, threonine - 9, tryptophan - 2.6, 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, adsorbent and prebiotic.

The basis of complete feed for broiler chickens aged 4-5 weeks are grain feed, plant protein concentrates, protein-vitamin supplement and soya oil.

The live weight of broiler chickens at 5 weeks of age is 2210 g, with an average daily gain for the period of 90 g. Feed costs for the period of feeding broiler chickens aged 4-5 weeks - 1.89 kg, feed conversion - 1.5 kg, the cost of 1 kg of live weight gain - 16 UAH.

It is concluded that the high economic efficiency of production of complete feed with the use of protein and vitamin supplements for broiler chickens aged 4-5 weeks 5 %.

It is established that the feeding of complete feed for broiler chickens aged 4-5 weeks satisfies the need of animals for energy, nutrients and biologically active substances, provides high productive qualities of poultry and meets the requirements of intensive management of the poultry industry.

**Key words:** 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.

According to the results of the research it was established that 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.

It is concluded 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 [2].

To study the economic efficiency of complete feed production with the use of protein and vitamin supplements for broiler chickens aged 4-5 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 4-5 weeks, to weigh young animals at the daily and 21 days and 35 days of 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 Odessa 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 4-5 weeks 5 %, complete feed for broiler chickens aged 4-5 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.

## **RESULTS**

According to the latest developments, the feeding of young poultry was carried out with complete feed for broiler chickens aged 4-5 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 220 g, lysine - not less than 13 g, methionine + cystine - 9, threonine - 9, tryptophan - 2.6, 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, adsorbent and prebiotic.

Complete feed for broiler chickens was made from crushed grain of cereals (wheat, barley, corn) – 63 %, vegetable protein concentrates (sunflower meal, soybean meal) – 30 %, soya 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 4-5 weeks contains: metabolic energy - not less than 5 MJ, dry matter - 900 g, crude protein - 200, lysine - 45, methionine + cystine - 53, 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 5 weeks of age is 2210 g, with an average daily gain for the period of 45 g. Feed costs for the period of feeding broiler chickens aged 4-5 weeks - 1.89 kg, feed conversion - 1.5 kg, the cost of 1 kg of live weight gain - 16 UAH.

## **CONCLUSIONS**

According to the results of the research, it can be concluded about the high economic efficiency of the production of complete feed with the use of protein and vitamin supplements for broiler chickens aged 4-5 weeks 5 %.

It is established that the feeding of complete feed for broiler chickens aged 4-5 weeks satisfies the need of animals for energy, nutrients and biologically active substances, provides high productive qualities of poultry and meets the requirements of intensive management of the poultry industry.

## REFERENCES

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