شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم

HANAA ALY

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جامعة عين شمس

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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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HANAA ALY

EFFECT OF SOME AMINO ACIDS SUPPLEMENTATION IN DIET ON PRODUCTIVE PERFORMANCE OF BROILER CHICKS UNDEREGYPTIAN SUMMER CONDITIONS

By

AMR ADEL SHEHATA HELAL
B.Sc. Agric. Co. Sc., High Institute for Agricultural Co-operation Shoubra Elkhiema, 1997

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Of
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Under the supervision of:

Dr. Fathy Abd El-Azeem Mohamed
Prof. of Poultry Nutrition, Department of Poultry Production, Faculty of Agriculture, Ain Shams University (Principal supervisor)

Dr. Hany Aly Thabet Motawea
Associate Prof. of Poultry Nutrition, Department of Poultry Production, Faculty of Agriculture, Ain Shams University

Dr. Mohamed Mostafa El-Sayed (Late)
Associate Prof. of Poultry Nutrition, Department of Poultry Production, Faculty of Agriculture, Ain Shams University

ABSTRACT

Amr Adel Shehata Helal: Effect of Some Amino Acids Supplementation in Diet on Productive Performance of Broiler Chicks under Egyptian Summer Conditions. Unpublished M.Sc. Thesis, Department of Poultry Production, Faculty of Agriculture, Ain Shams University, 2021.

A study was conducted to investigate the effects of feeding different levels of threonine and tryptophan on growth performance, carcass traits and some serum parameters of broiler chicks under Egyptian summer conditions. Three hundred and sixty Ross 308, one-day-old broiler chicks were randomly allocated into nine treatments with 4 replicates of 10 chicks each. Three levels of threonine (100, 150 or 200 %) and three levels of tryptophan (100, 150 or 200%) according to dietary requirements for Ross 308 chick's guidebook were used in a factorial design arrangement to obtain nine experimental treatments. Two periodical diets were used (starter phase 1-21; grower phase 22-35 days of age). Growth performance traits including live body weight (LBW), daily body weight gain (DBWG), daily feed consumption (DFC) and feed conversion ratio (FCR) were recorded at the end of each week. Carcasses were manually eviscerated and weighed. Components of total protein, albumin, cholesterol, and triglycerides were analyzed by using commercial kits. The results showed that chicks fed diet containing 200 % threonine had an improvement in live body weight, body weight gain and feed conversion ratio. The performance index increased with the addition of threonine and tryptophan in thebroiler diets. Chicks fed 100% dietary threonine had the significantly better results in terms of the relative weights of carcass, edible parts and bursa compared to the chicks fed other dietary threonine levels, although tryptophan amino acid had not any significant effectd on the above-mentioned traits. Giblets, liver, and heart weights percentage increase with increasing tryptophan level in the broiler diets. The relative weight of gizzard reduced with increasing level of both amino acids in the diets. The results showed that

is, no significant effects of different types and levels of amino acid on percentages of breast, thigh, drumstick, wing, and nick. The dietary inclusion of different levels of threonine had no impact on drumstick, breast, and thigh relative weights, irrespective of tryptophan different level.

Serum total protein and globulin concentrations were affected by supplemental threonine and tryptophan. Dietary threonine, tryptophan did not affect serum albumin and triglycerides. Total cholesterol was increased with supplementation of threonine, tryptophan, and interaction between them.

In this study, it concluded that supplementation of threonine and tryptophan improves productive performance and health status of broiler chicks without imposing any toxicity as all blood components were in normal range.

Key Words: Broilers, performance, threonine, tryptophan, blood, carcass traits.

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