

عنوان مقاله:

Effect of Reduced Dietary Crude Protein Levels on Growth Performance, Plasma Uric Acid and Electrolyte Concentration of Male Broiler Chicks

محل انتشار:

مجله علوم و فناوری کشاورزی، دوره 14، شماره 4 (سال: 1391)

تعداد صفحات اصل مقاله: 9

نویسندگان:

E. Darsi - *Department of Animal Science, College of Agriculture and Natural Recourse, University of Tehran, Karaj, Islamic Republic of Iran*

M. Shivazad - *Department of Animal Science, College of Agriculture and Natural Recourse, University of Tehran, Karaj, Islamic Republic of Iran*

M. Zaghari - *Department of Animal Science, College of Agriculture and Natural Recourse, University of Tehran, Karaj, Islamic Republic of Iran*

N. F. Namroud - *Department of Animal Science, College of Agriculture and Natural Recourse, University of Tehran, Karaj, Islamic Republic of Iran*

.R. Mohammadi - *Department of Medical Biochemistry, Islamic Azad University, Tehran, Islamic Republic of Iran*

خلاصه مقاله:

Changes in dietary electrolyte balance influence the metabolic fate of protein and many amino acids. Furthermore, acid-base condition is achieved in part by the alteration of dietary amino acids pattern and quantity. Therefore, a trial was conducted in a completely randomized design to evaluate performance, carcass characteristics, plasma electrolyte and uric acid concentrations of 19 and 28-day-old male broilers fed three experimental diets in which CP was decreased in a stepwise manner from 21 to 18%. Ileal digestible quantities of all EAA were almost equal in the diets, and the total amount of each EAA was maintained at or above NRC 1994 requirements. Decreasing dietary CP did not affect performance and appetite but increased fat deposition in the whole body and abdominal cavity, significantly. High crude protein fed chickens generally produced breast, thighs and total carcasses that were lower in fat. Reducing dietary CP increased the concentrations of main plasma electrolytes including ionized forms of the electrolytes (Na⁺, K⁺, Cl⁻) but its influence on Ca⁺⁺ and HCO₃⁻ ions was not significant. On the other hand, plasma uric acid concentration was reduced in parallel with crude protein reduction. Therefore, although reduction of CP to 18% does not impair the performance of broiler chickens, deficiency in uric acid production in low CP diets may lead to blood electrolyte imbalance.

کلمات کلیدی:

Broiler chicken, Crude protein, Dietary electrolyte balance, Uric acid

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1827011>

