PENGARUH PERBEDAAN LEVEL ALFALFA TROPIK (Kacang Ratu BW) DALAM RANSUM AYAM LAYER TERHADAP KANDUNGAN BETAKAROTEN, VITAMIN A, DAN KOLESTEROL TELUR

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INTISARI

Penelitian ini bertujuan untuk mengetahui efek penambahan alfalfa tropik dalam ransum ayam layer pada level yang berbeda terhadap kandungan beta karoten, vitamin A dan kolesterol telur ayam layer. Sebanyak 96 ekor ayam layer strain *Hy-Line* umur 50 minggu digunakan dengan masa pemeliharaan 97 hari. Tiga tahap, penelitian yaitu: adaptasi pakan, pemberian pakan perlakuan, serta koleksi dan analisis data. Adaptasi dilakukan dilakukan selama 10 hari dan pemeliharaan selama 3 periode dengan tiap periode 29 hari. Penelitian ini terdiri dari 4 perlakuan dan 4 ulangan. Perlakuan yang digunakan sebagai berikut: P0 : 100% pakan basal + 0% alfalfa, P1= 100% pakan basal + 3% suplementasi alfalfa; P2 = 97% pakan basal + 3% substitusi alfalfa; dan P3 = 95% pakan basal + 5% substitusi alfalfa. Variabel yang akan diamati yaitu kandungan beta karoten, vitamin A dan kolesterol total dalam telur pada setiap perlakuan. Data diperoleh dengan sampling telur pada akhir periode pemeliharaan untuk dilakukan analisis di laboratorium. Dilakukan analisis variansi berdasarkan rancangan acak lengkap (*Completely Randomized Design*) faktorial dengan bantuan program SPSS. Hasil yang menunjukkan signifikan, di lanjutkan dengan uji lanjut *Duncan Multiple Range Test* (DMRT). Hasil penelitian menunjukkan penambahan alfalfa dalam ransum menurunkan ($P<0,01$) kolesterol telur, diperoleh hasil terbaik pada pakan dengan 3% substitusi alfalfa. Periode pemeliharaan menurunkan ($P<0,05$) kolesterol telur serta meningkatkan betakaroten dan vitamin A telur. Kesimpulan dari penelitian ini yaitu alfalfa sebagai pakan substitusi maupun suplementasi ayam layer dapat menurunkan kadar kolesterol, akan tetapi kurang efektif untuk meningkatkan kadar vitamin A dan betakaroten telur.

Kata kunci: Alfalfa Tropik, Betakaroten, *Hy-Line*, Kolesterol, Substitusi, Suplementasi, Vitamin A

THE EFFECT OF DIFFERENT LEVELS TROPICAL ALFALFA (Kacang Ratu BW) IN LAYER CHICKEN RATIONS ON BETACAROTENE, VITAMIN A, AND EGG CHOLESTEROL

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ABSTRACT

The aimed of this research was to determine the effect of different the levels of tropical alfalfa on the beta carotene, vitamin A, and egg cholesterol content of layer chicken diets. A total of 96 Hy-Line 50-week-old layer chickens were used, and they were kept for 97 days. There were three parts to the treatment: feed adaption, treatment feeding, then collection and analysis of the data. Ten days were spent on adaptation, and three periods of 29 days each were used for maintenance. Four treatments and four replications were used in this research. The following treatments were applied: P0: 100% base feed with 0% alfalfa; P1: 100% base feed with 3% alfalfa supplement; P2: 97% base feed with 3% alfalfa substitution; and P3: 95% base feed with 5% alfalfa substitution. The amounts of beta carotene, vitamin A, and total cholesterol in the eggs in each treatment were the variables to be analyzed. The data obtained were analyzed using analysis of variance based on (Completely Randomized Design) factorial prepared with the assist of the SPSS program. Continue with the Duncan Multiple Range Test (DMRT) for the results were significant. The results showed that alfalfa substitution decreased egg cholesterol ($P<0,01$), best results were obtained on feed with 3% alfalfa substitution. Cholesterol, betacarotene and vitamin A levels increased during the maintenance period ($P<0,05$). The conclusion of this research was that alfalfa can be used as a feed substitution or supplementation for layer chickens to reduced egg cholesterol levels, but was less effective at increasing vitamin A and betacarotene levels in eggs.

Keywords: Tropical Alfalfa, Betacarotene, Cholesterol, Hy-Line, Substitution, Supplementation, Vitamin A