PENGARUH SUPLEMENTASI ASAM GUANIDINO ASETAT PADA KADAR PROTEIN PAKAN BERBEDA TERHADAP KUALITAS FISIK DAN KIMIA TELUR

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian pakan dengan kadar protein berbeda dan penambahan asam guanidino asetat terhadap interior telur pada ayam petelur yang meliputi sifat fisik dan kimia telur. Sebanyak 288 ekor ayam petelur jenis Lohmann Brown dikelompokkan menjadi empat perlakuan, tiap perlakuan terdiri dari enam ulangan dan tiap ulangan terdiri dari 12 ekor. Ayam ditempatkan di kandang batere individual dan air minum diberikan *ad libitum*. Faktor perlakuannya adalah kadar protein yang terdiri dari protein kasar (PK) 18% dan 16%, dan adanya suplementasi asam guanidino asetat sebesar 0,00% dan 0,10%. Perlakuan terdiri: P1 (PK 16% dan asam gunidino asetat 0,00%); P2 (PK 16% dan asam guanidino asetat 0,10%); P3 (PK 18% dan asam gunidino asetat 0,00%); P4 (PK 18% dan asam guanidino asetat 0,10%). Pengamatan dilakukan selama 12 minggu. Data yang diperoleh meliputi data berat telur, indeks yolk, HU, kadar lemak, protein dan kolesterol. Data dianalisis dengan variansi pola searah dan dilanjutkan dengan uji *Duncan's Multiple Range Test* (DMRT). Berdasarkan hasil penelitian dengan adanya suplementasi asam guanidino asetat pada kadar protein pakan berbeda terhadap kualitas fisik dan kimia telur diperoleh data sebagai berikut : berat telur berkisar antara 60,10g sampai 62,58g, indeks yolk berkisar antara 0,54 sampai 0,59, Haugh unit berkisar antara 106,93 sampai 108,25, kadar lemak berkisar antara 28,8% sampai 32,25%, kadar protein berkisar antara 9,24% sampai 9,89%, dan kolesterol berkisar antara 7,19mg/g sampai 7,66mg/g. Dapat disimpulkan bahwa pengaruh suplementasi asam guanidino asetat pada kadar protein pakan berbeda terhadap kualitas telur belum mampu meningkatkan berat telur, indeks yolk, Haugh unit, kadar lemak, kadar protein dan kolesterol telur.

(Kata kunci : Protein, Asam guanidino asetat, Ayam petelur, Kualitas fisik, Kualitas kimia telur).

EFFECT OF SUPPLEMENTATION OF GUANIDINO ACETIC ACID IN DIFFERENT LEVELS OF FEED PROTEIN ON PHYSICAL AND CHEMICAL OF EGGS

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ABSTRACT

This study aimed to determine the effect of feeding with different protein levels and the addition of guanidino acetic acid on egg quaity including physical and chemical properties of eggs. A total of 288 laying hens types of Lohman Brown grouped into four treatments, each treatment consisted of six replicates and each replication consisted of 12 laying hens. Chickens were placed in individual battery cages and water were given *ad libitum*. Treatment was crude protein (CP) level of feed 18% and 16%, and the guanidino acetic acid supplementation 0.00% and 0.10%. The treatments were: P1 (CP 16% and 0.00% gunidino acetic acid); P2 (CP 16% and guanidino acetic acid 0.10%); P3 (CP 18% and 0.00% gunidino acetic acid); P4 (CP 18% and guanidino acetic acid 0.10%). Observations were con docted during 12 weeks. Data obtained including weight, yolk index, HU, fat, protein and cholesterol content of egg. Data were analyzed by one way design and continued with *Duncan's Multiple Range Test* (DMRT). The results showed with guanidino acetic acid supplementation in different feed protein level on physical and chemical qualities of eggs obtained the following data: egg weight ranging from 60.10g to 62.58g, yolk index from 5.47 to 5.95, Haugh units from 106.93 to 108.25 fat content from 28.8% to 32.25%, protein content from 9.24% to 9.89%, and cholesterol from 7.19mg/g to 7.66 mg/g. It could be concluded that the effect of guanidino acetic acid supplementation in the different protein levels quality of the eggs had not been able to increase egg weight, yolk index, Haugh unit, fat content, protein content and cholesterol eggs.

(Keywords: Protein, Guanidino acetic acid, Laying hens, Physical, Chemical quality of the egg).