



PENGARUH PENAMBAHAN ASAM GLUTAMAT DALAM RANSUM TERHADAP KUALITAS TELUR

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EVTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan asam glutamat dalam ransum ayam terhadap kualitas telur. Lima puluh ekor ayam petelur strain *Lohmann* 402 umur 23 minggu dibagi secara acak ke dalam lima perlakuan ransum yang terdiri dari 4 perlakuan ransum dan 1 perlakuan ransum sebagai pembanding di lapangan. Masing-masing perlakuan terdiri 5 ulangan, setiap ulangan terdiri dari 2 ekor ayam. Lima perlakuan ransum tersebut adalah R I {ransum protein rendah (PR) dengan protein kasar (PK) 11% yang mengandung asam amino lisin 0,78%; metionin 0,38%; treonin 0,52%; triptofan 0,17% tanpa penggunaan asam glutamat (AG)}, R II (ransum PR + 3,36 % AG), R III (ransum PR + 6,72 % AG), R IV (ransum PR + 10,08 % AG), dan RV (ransum komersial dengan kadar protein kasar 17,5 %) sebagai pembanding. Pakan dan air minum diberikan secara *ad libitum*. Data yang diperoleh dianalisis dengan analisis variansi rancangan acak lengkap pola searah yang meliputi bobot telur, nilai *Haugh Unit*, tebal kerabang dan nilai wama kuning telur. Untuk basil yang berbeda digunakan uji beda jarak ganda *Duncan's*. Hasil penelitian menunjukkan bahwa penambahan asam glutamat berpengaruh sangat nyata ($P < 0,01$) terhadap bobot telur dan nilai warna kuning telur, tetapi berpengaruh tidak nyata terhadap nilai *Haugh Unit* dan tebal kerabang. Dari hasil yang diperoleh dapat disimpulkan bahwa penambahan asam glutamat dalam ransum berkadar protein kasar 11% menurunkan bobot telur, meningkatkan nilai warna kuning telur dan mempertahankan nilai *Haugh Unit* dan tebal kerabang.

Kata kunci : Asam glutamat, Protein rendah, Ayam telur, Kualitas telur.



THE EFFECT OF GLUTAMIC ACID SUPPLEMENTATION ON LAYING HENS RATION ON THE EGG QUALITY

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ABSTRACT

This research was conducted to investigate the effect of glutamic acid supplementation on laying hens ration on the egg quality. Fifty laying hens of 23 weeks old of Lohmann 402 strain were randomly distributed into five ration treatments and one comparing ration treatment. Each treatment consisted of five replications and each replication consisted of two individual hens. The five treatments ration were RI {low protein ration with 11% of crude protein (CP) contained 0.78% lysine amino acid, 0.38% of methionine, 0.52% of threonine, 0.17% tryptophan without glutamic acid (GA)}, RII (low protein ration + 3.36% GA), RIII (low protein ration + 6.72% GA), RIV (low protein ration + 10.08% GA) and RV (commercial ration with 17.5% of CP) as comparing ration. The diet and water were given *ad libitum*. The egg weight, haugh unit, shell thickness and yolk colour value were statistically analyzed using one way classification Complete Randomized Design of variance analysis. The different results were tested using Duncan's New Multiple Range Test. There were statistically significant differences of egg weight and yolk colour values but the differences on shell thickness and Haugh Unit value were not significant. It can be concluded that glutamic acid supplementation on laying hens ration reduces egg weight, increasing yolk colour values and maintains haugh unit values and shell thickness.

Key words: Glutamic acid, Low protein, Layer, Egg quality.