

PENGARUH PROBIOTIK GALLIPRO® PADA PAKAN RENDAH PROTEIN KASAR DENGAN PENAMBAHAN ASAM AMINO SEIMBANG TERHADAP KUALITAS TELUR

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan probiotik GalliPro® pada pakan rendah protein kasar dengan penambahan asam amino seimbang terhadap ukuran telur, kerabang tipis, kerabang retak, ketebalan kerabang telur, serta nilai Haugh Unit. Penelitian dilakukan mulai Januari 2015 sampai dengan April 2015. Penelitian dilakukan di Laboratorium Ilmu Ternak Unggas Fakultas Peternakan UGM. Materi penelitian yang digunakan adalah 384 ekor ayam petelur Lohmann Brown berumur 23 minggu yang diberi 4 perlakuan berbeda (diet pakan) yaitu Pakan I (tanpa ditambahkan L *Threonine*, L *Thryptophan* dan GalliPro®), Pakan II (ditambahkan L *Threonine* dan L *Thryptophan* tanpa ditambahkan GalliPro®), Pakan III (tanpa ditambahkan L *Threonine* dan L *Thryptophan*, ditambahkan dengan GalliPro®) dan Pakan IV (ditambahkan L *Threonine* dan L *Thryptophan* serta ditambahkan GalliPro®). Setiap perlakuan dilakukan dengan 8 replikasi masing masing 12 ekor ayam per replikasi. Masing-masing ayam ditempatkan pada kandang batere individu pada dua bangunan kandang berbeda. Pakan diberikan secara *ad libitum*. Data yang diambil meliputi berat telur, persentase keutuhan kerabang, persentase kerabang tipis, ketebalan kerabang dan nilai Haugh Unit. Penimbangan berat telur dan pengamatan kondisi kerabang dilakukan setiap hari, pengukuran tebal kerabang dan tinggi putih telur dilakukan seminggu sekali. Hasil penelitian menunjukkan perbedaan nyata ($P < 0,05$) adanya pengaruh pemberian probiotik untuk rerata berat telur, penggolongan berat yakni pada golongan jumbo, besar, dan medium dengan nilai tertinggi pada golongan berat besar. Data analisis variansi menggunakan Rancangan Acak Lengkap Pola Searah dan dilanjutkan dengan uji *Duncan's Multiple Range Test* (DMRT) untuk uji perbedaan. Pemberian probiotik pada pakan menunjukkan hasil yang tidak signifikan terhadap keutuhan kerabang, kerabang tipis, tebal kerabang, dan nilai Haugh Unit. Kesimpulan dari penelitian ini pemberian probiotik GalliPro® tidak berpengaruh terhadap kualitas telur.

Kata kunci: Lohmann Brown, Probiotik, GalliPro®, Rendah Protein Kasar, Kualitas Telur

EFFECT OF GALLIPRO® PROBIOTICS IN THE LOW CRUDE PROTEIN DIETS SUPPLEMENTED WITH AMINO ACID BALANCED ON THE EGG QUALITIES

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ABSTRACT

The research was aimed to determine the effect of GalliPro® probiotics in the low crude protein diets with amino acid balanced on egg size, percentage of soft shell, crack shell eggs, shell thickness and Haugh Unit. The research was conducted on January 2015 until April 2015. The research location was at Laboratory of Poultry Science, Faculty of Animal Science, Universitas Gadjah Mada. Experimental birds were 384 Lohmann Brown laying hens of 23 weeks old that was given four treatments, Diet I (without L *Threonine*, L *Thryptophan* and GalliPro® supplementation), Diet II (with L *Threonine*, L *Thryptophan* supplementation but without GalliPro® supplementation), Diet III (without L *Threonine*, L *Thryptophan* supplementation but with GalliPro® supplementation), and Diet IV (with L *Threonine*, L *Thryptophan*, and GalliPro® supplementation). Every treatments had eight replications with twelve hens each replications. All hens were placed in individual layer cages at two different buildings. *Ad libitum* feeding were practiced. The collected data was egg size, percentage of soft shell, crack shell eggs, shell thickness and Haugh Unit. The weighing process of eggs was held everyday, the measuring process of shell thickness and albumen height was held every once a week. The results showed that there was significant differences ($P>0,05$) on the average of egg size, egg size classification, namely large classification. The data were analyzed by a one way analyse of variance (Completely Randomized Design) followed by testing signifcation means by Duncan's Multiple Range Test (DMRT). The result showed there was not significant differences for wholeness shell, soft shell, shell thickness and Haugh Unit. It could be concluded that the GalliPro® probiotics supplementation did not have effect on egg qualities.

Key word: Lohmann Brown, Probiotics, GalliPro®, Low Crude Protein, Egg Quality