

PENGARUH SUPLEMENTASI KOMBINASI TEPUNG KUNYIT DAN TEPUNG CABAI MERAH SERTA LAMA PENYIMPANAN TERHADAP KUALITAS INTERNAL TELUR

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh suplementasi kombinasi tepung kunyit dan tepung cabai merah serta lama penyimpanan terhadap kualitas internal telur. Penelitian dilakukan selama 8 minggu di Gudang Agromix Lestari, Sentolo, Kulon Progo, Daerah Istimewa Yogyakarta. Materi penelitian menggunakan ayam petelur strain Lohmann Brown sebanyak 50 ekor yang berumur 43 minggu dan dipelihara dalam kandang baterai individu. Perlakuan pakan terdiri dari 2 macam, yakni P0: 100% pakan basal (kontrol) dan P1: 99% pakan basal + 0,5% tepung kunyit + 0,5% tepung cabai merah. Metode penelitian terdiri dari 5 replikasi setiap perlakuan dengan setiap replikasi terdiri dari 5 ekor ayam petelur. Telur yang dikoleksi diuji pada hari ke-0, hari ke-7, dan hari ke-14 setelah dikoleksi untuk mengukur indeks albumen, indeks yolk, pH albumen, pH yolk, dan Haugh unit. Analisis data akan dilakukan dengan metode ANOVA Rancangan Acak Lengkap Pola Faktorial 2 x 3 dan apabila menunjukkan hasil nyata dilanjutkan uji Duncan's Multiple Range Test. Pada parameter yang terjadi interaksi antar perlakuan dilanjutkan dengan uji ANOVA Rancangan Acak Lengkap Pola Searah. Hasil penelitian menunjukkan bahwa perlakuan penyimpanan menurunkan ($P < 0,05$) kualitas indeks albumen, indeks yolk, pH albumen, pH yolk, dan Haugh unit. Perlakuan jenis pakan menurunkan ($P < 0,05$) nilai pH albumen dan pH yolk tetapi tidak mempengaruhi nilai indeks albumen, indeks yolk, dan Haugh unit. Interaksi antara perlakuan jenis pakan dan penyimpanan terjadi pada pH yolk, tetapi tidak terjadi pada indeks albumen, indeks yolk, pH albumen, dan Haugh unit.

Kata kunci: Ayam petelur, cabai merah, kualitas internal telur, kunyit

The Effect of Combined Supplementation of Turmeric Powder and Red Chili Pepper Powder and Storage Duration on Internal Egg Quality

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ABSTRACT

This study aimed to evaluate the effects of combined supplementation of turmeric powder and red chili pepper powder, along with storage duration, on the internal quality of eggs. The experiment was conducted over eight weeks at the Agromix Lestari Warehouse, Sentolo, Kulon Progo, Special Region of Yogyakarta. A total of 50 Lohmann Brown laying hens, 43 weeks of age, were used and housed individually in battery cages. The dietary treatments consisted of two groups: P0, 100% basal diet (control), and P1, 99% basal diet supplemented with 0.5% turmeric powder and 0.5% red chili pepper powder. The experimental design included five replicates per treatment, with each replicate consisting of five laying hens. Collected eggs were evaluated on day 0, day 7, and day 14 after collection to measure albumen index, yolk index, albumen pH, yolk pH, and Haugh unit. Data were analyzed using Analysis of Variance under a Completely Randomized Design with a 2×3 factorial arrangement, followed by Duncan's Multiple Range Test when significant differences were observed. For parameters showing interaction effects, further analysis was conducted using one-way ANOVA under a Completely Randomized Design. The results showed that storage treatment decreased ($P < 0.05$) albumen index, yolk index, albumen pH, yolk pH, and Haugh unit. Dietary treatment reduced ($P < 0.05$) albumen pH and yolk pH, but did not affect albumen index, yolk index, or Haugh unit. An interaction between dietary treatment and storage duration was observed in yolk pH, but not in albumen index, yolk index, albumen pH, or Haugh unit.

Key Words: Laying hens, red chili pepper, internal egg quality, turmeric