PENGARUH PERENDAMAN DALAM EKSTRAK KUNYIT (*Curcuma longa* L.) DAN LAMA PENYIMPANAN TERHADAP KUALITAS FISIK DAN JUMLAH MIKROBA TELUR AYAM RAS

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INTISARI*

Penelitian ini bertujuan untuk mengetahui interaksi antara konsentrasi ekstrak kunyit dan lama penyimpanan terhadap kualitas fisik dan jumlah mikroba telur ayam ras. Penelitian ini dilaksanakan pada tanggal 19 Februari sampai dengan 4 Mei 2018. Penelitian ini dilakukan di tiga tempat yaitu, Laboratorium Kimia, Laboratorium Mikrobiologi dan Laboratorium Peternakan Universitas Mercu Buana Yogyakarta. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) pola faktorial 4 X 3, dengan 3 kali ulangan. Faktor pertama perlakuan terdiri dari 4 konsentrasi ekstrak kunyit (0% ; 10% ; 20% dan 30%) dan faktor kedua yaitu 3 perlakuan lama waktu penyimpanan (1 minggu ; 3 minggu dan 5 minggu). Data dianalisis menggunakan *Analysis of Variance* (ANOVA), jika ada perbedaan nyata dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT). Variabel yang diamati yaitu susut berat telur, rongga udara, indeks telur, indeks putih telur, indeks kuning telur, warna kuning telur, *Haugh Unit* (HU) dan jumlah mikroba. Hasil penelitian menunjukkan bahwa lama penyimpanan dapat meningkatkan nilai rongga udara, indeks putih telur, indeks kuning telur, sedangkan konsentrasi ekstrak kunyit dapat meningkatkan nilai indeks putih telur, indeks kuning telur, dan HU. Terjadi interaksi antara konsentrasi ekstrak kunyit dan lama penyimpanan telur pada indeks putih telur dan HU. Berdasarkan hasil penelitian dapat disimpulkan bahwa perendaman telur dalam ekstrak kunyit konsentrasi 20% mampu memperpanjang lama penyimpanan telur mencapai 3 minggu.

Kata kunci : Telur ayam, kualitas fisik, TPC, ekstrak kunyit, lama penyimpanan

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THE INFLUENCE OF SOAKING IN TURMERIC EXTRACT (*Curcuma longa* L.) AND STORAGE TIME ON THE PHYSICAL QUALITY AND THE MICROBES NUMBER OF RACE CHICKEN EGG

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ABSTRACT*

This research aimed to determine the interaction between storage time and concentration of turmeric extract on physical quality and the number of microbes of race chicken egg. This research was conducted on February 19 to May 4 2018. This study was conducted in three places, namely, the Chemistry Laboratory, Microbiology Laboratory and Animal Husbandry Laboratory of University of Mercu Buana Yogyakarta. This Study used a Completely Randomized Design (CRD) factorial pattern 4 x 3 with 3 replications. The first factor of treatment consisted of 4 concentration of turmeric extract (0%; 10%; 20% and 30%) and the second factor that was storage time treatment 3 (1 week; 3 weeks and 5 weeks). The data were analyzed using Analysis of Variance (ANOVA), if there were significant differences then continued by Duncan's New Multiple Range Test (DMRT). The observed variables were decrease the weight of the egg, the air cavity, the egg index, albumen index, yolk index, yolk colour, Haugh Unit (HU) and the number of microbes. The result of the study showed that the storage time could be increase the value of the air cavity, albumen index, yolk index, while the concentration of extract turmeric could be increase the value of the albumen index, yolks index, and HU. There was the interaction between the concentration of extract of turmeric and storage time of egg at the index of albumen index and HU. Based on the result of the study it could be concluded that the soaking egg in turmeric extract 20% of concentration were able to prolong the storage time of eggs reached in 3 weeks.

Keywords : chicken egg, physical quality, TPC, turmeric extract, storage time

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