PERBANDINGAN PROFIL ASAM LEMAK TELUR AYAM "SEKUNTUM HERBAL" DAN KAMPUNG DARI AYAM MUDA DAN TUA

INTISARI

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Telur ayam "Sekuntum Herbal" diproduksi dengan menerapkan pemberian ekstrak herbal sebagai imbuhan pakan pengganti antibiotik ke dalam telur ayam. Penelitian ini bertujuan untuk mengetahui perbandingan antara kadar proksimat, jenis dan komposisi asam lemak pada telur ayam "Sekuntum Herbal" dan telur ayam kampung dengan umur berbeda (tua dan muda). Metode kromatografi gas dengan standar eksternal Supelco CRM 18918 (C8:0-C24:0), dan standar internal asam Nonadekanoat (C19:0) digunakan untuk mengidentifikasi jenis asam lemak yang ada.

Hasil penelitian menunjukkan perbedaan nyata (p<0,05) antara telur ayam "Sekuntum Herbal" dengan ayam kampung terhadap kadar air, kadar abu, dan Bahan Ekstrak Tanpa Nitrogen (BETN), tetapi tidak pada kadar lemak dan protein. Kadar air dan kadar BETN telur ayam "Sekuntum Herbal" bernilai lebih besar dibandingkan dengan telur ayam kampung tetapi kadar abunya lebih kecil daripada kadar abu ayam kampung. Dari segi umur ayam, telur ayam muda memiliki kadar air yang lebih besar daripada telur ayam tua tetapi kadar lemak dan kadar abunya bernilai lebih kecil. Perbedaan umur tidak berpengaruh nyata terhadap kadar protein dan kadar BETN (p>0,05).

Profil asam lemak dari semua telur menunjukkan asam lemak dominan yang sama, yaitu asam Oleat, asam Palmitat, dan asam Linoleat. Telur "Sekuntum Herbal" memiliki rasio SFA : MUFA :PUFA yang paling mendekati rasio ideal (1:1,3:1), yaitu 1: 1,17-1,34: 0,47-0,56. Telur ayam "Sekuntum Herbal" dan telur ayam kampung dari ayam muda dan tua memiliki kisaran rasio n-6/n-3 (8,0694-20,8872) yang belum sesuai dengan rasio ideal (4:1). Rasio n-6/n-3 telur ayam kampung (8,0694-13,3119) dan telur ayam tua (8,0694-16,8840) lebih baik nilainya.

Kata kunci: telur ayam, herbal, asam lemak, omega-6, omega-3

COMPARISON OF FATTY ACID PROFILE IN "SEKUNTUM HERBAL" CHICKEN EGGS AND NATIVE CHICKEN EGGS FROM YOUNG AND OLD CHICKEN

ABSTRACT

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"Sekuntum Herbal" chicken eggs are produced by implementing herbal extract in replacement to antibiotics as feed additive in chicken feed. This research was conducted to compare the proximate composition and types of fatty acids as well as its content in "Sekuntum Herbal" chicken egg and native chicken egg from old and young chicken. Gas chromatography method with Supelco CRM 18918 (C8:0-C24:0) as the external standard and Nonadecanoic acid (C19:0) as the internal standard was used to identify the fatty acids.

Research shows a significant difference (p<0.05) between "Sekuntum Herbal" chicken egg and native chicken egg on water, ash, and Nitrogen Free Extract (NFE) content, but not on the fat and protein content. "Sekuntum Herbal" chicken egg has higher content of water and NFE but lower ash content compared to native chicken egg. Based on the chicken's age, younger chicken egg has higher water content significantly (p<0.05). On the contrary, its fat and ash contents are lower than those in older chicken egg. Age difference doesn't affect the protein and NFE content (p>0.05).

All egg types have the same major fatty acids, which are Oleic, Palmitic, and Linoleic acid. "Sekuntum Herbal" chicken egg have the closest ratio of SFA : MUFA : PUFA to the ideal ratio (1:1.3:1), which is 1: 1.17-1.34: 0.47-0.56. The result of n-6/n-3 ratio in "Sekuntum Herbal" chicken egg and native chicken egg from young and old chicken is 8.0694-20.8872, which exceeds the ideal n-6/n-3 ratio (4:1). When it comes to comparation, the n-6/n-3 ratio ranges between 8.0694-13.3119 in native chicken egg and 8.0694-16.8840 in old chicken egg are more favourable.

Key words: chicken egg, herb, fatty acid, omega-6, omega-3