

KUALITAS DAN PROFIL PROTEIN TELUR AYAM LOKAL MERAWANG, KAMPUNG UNGGUL BALITBANGTAN, DAN MURUNG PANGGANG SELAMA PENYIMPANAN

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INTISARI

Ayam Merawang, Kampung Unggul Balitbangtang (KUB), dan Murung Panggang termasuk ayam lokal dari Indonesia sebagai penghasil daging maupun telur. Penelitian ini bertujuan untuk mengetahui pengaruh jenis ayam dan lama penyimpanan terhadap kualitas telur dan profil protein putih telur ayam lokal. Pengujian kualitas telur meliputi uji kualitas eksternal dan internal. Profil protein putih telur ayam dianalisis dengan *Sodium Dodecyl Sulphate Polyacrylamid Gel Electrophoresis* (SDS-PAGE). Analisis data menggunakan *two way ANOVA* dan diuji lanjut dengan *Duncan's New Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa telur ayam Merawang, KUB, dan Murung Panggang yang disimpan 40 hari rata-rata mempunyai bentuk *oval* (84%, 96%, dan 80%), berwarna *light brown* (72%, 88%, dan 64%), berat telur (45,87, 43,23, dan 44,39 g), berat jenis (1,028, 1,027, dan 1,026 g/ml), indeks telur (78,88, 78,60, dan 75,03), indeks *albumen* (0,035, 0,048, dan 0,037), indeks *yolk* (0,198, 0,238, dan 0,219), warna *yolk* (8,80, 8,92, dan 9,44), *Haugh Unit* (HU) (53,46, 65,78, dan 54,44), ketebalan kerabang (0,46, 0,43, dan 0,44 mm), pH *albumen* (8,81, 8,90, dan 8,88), dan pH *yolk* (6,47, 6,32, dan 6,29). Perbedaan jenis ayam berpengaruh signifikan ($P < 0,05$) terhadap berat, indeks telur, indeks *albumen* dan *yolk*, warna *yolk*, HU, ketebalan kerabang, dan pH *albumen*. Penyimpanan selama 40 hari dapat menurunkan berat telur, berat jenis, indeks *albumen* dan *yolk*, warna *yolk*, HU, ketebalan kerabang, serta pH *albumen* dan *yolk* secara signifikan ($P < 0,05$). Profil protein putih telur ayam Merawang, KUB, dan Murung Panggang tidak menunjukkan adanya perubahan selama penyimpanan. Kesimpulannya, telur ayam KUB memiliki kualitas terbaik berdasarkan indeks *albumen*, indeks *yolk*, dan HU. Telur yang disimpan selama 40 hari mengalami penurunan kualitas eksternal dan internal, namun tidak terjadi perubahan profil protein pada putih telur.

Kata kunci : Telur ayam lokal, Lama penyimpanan, Kualitas telur, Profil protein

QUALITY AND PROTEIN PROFILE DOMESTIC CHICKEN EGG OF MERAWANG, KAMPUNG UNGGUL BALITBANGTAN, AND MURUNG PANGGANG DURING STORAGE

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ABSTRACT

Merawang, Kampung Unggul Balitbangtan (KUB), and Murung Panggang chickens are domestic chickens from Indonesia as a producer of meat and egg. This study aimed to determine the effect of chicken types and storage time on egg quality and protein profile differences of domestic chicken egg whites. Egg quality testing included external and internal tests. The protein profile of chicken egg white was analyzed using the Sodium Dodecyl Sulphate Polyacrylamide Gel Electrophoresis (SDS-PAGE). Data were analyzed using two-way ANOVA and followed by Duncan's New Multiple Range Test (DMRT). The results showed that the eggs of Merawang, KUB, and Murung Panggang chickens which storages for 40 days had oval egg shape (84%, 96%, and 80%), light brown color (72%, 88%, and 64%), egg weight (45.87, 43.23, dan 44.39 g), density (1.028, 1.027, dan 1.026 g/ml), egg index (78,88, 78,60, dan 75,03), albumen index (0,035, 0.048, dan 0.037), yolk index (0.198, 0.238, dan 0.219), yolk color (8.80, 8.92, dan 9.44), Haugh Unit (HU) (53.46, 65.78, dan 54.44), eggshell thickness (0.46, 0.43, dan 0.44 mm), *albumen* pH (8.81, 8.90, dan 8.88), dan *yolk* pH (6.47, 6.32, dan 6.29). Differences in chicken types were significantly ($P < 0.05$) on egg weight, egg index, albumen and yolk index, yolk color, HU, eggshell thickness, and albumen pH. Storage for 40 days was significantly reduced egg weight, egg density, albumen and yolk index, yolk color, HU, eggshell thickness, albumen and yolk pH ($P < 0.05$). The protein profile of Merawang, KUB, and Murung Panggang chicken egg whites did not show any changes during storage. It can be concluded that KUB chicken eggs had the best quality based on albumen index, yolk index, and HU. The eggs were stored for 40 days decreased quality of external and internal, however no changes in egg white protein profile.

Key words : Domestic chicken egg, Storage time, Egg quality, Protein profile