

INTISARI

PENGARUH PEMBERIAN TEPUNG BAYAM MERAH (*Amaranthus tricolor* L.) DAN *Spirulina* sp. TERHADAP KADAR KOLESTEROL SERTA KUALITAS KUNING TELUR BURUNG PUYUH *Coturnix japonica* (Temminck & Schlegel, 1848)

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Di Indonesia, presentase penduduk lansia dengan keluhan penyakit cardiovascular sangatlah tinggi. Hal ini disebabkan karena jumlah konsumsi telur puyuh dengan kadar kolesterol tinggi yang sangat diminati dikalangan masyarakat. Kolesterol adalah zat alamiah dengan sifat fisik serupa lemak tetapi mempunyai gugus steroida. Oleh karena itu, penelitian ini difokuskan pada pengaruh pemberian tepung bayam merah dan *Spirulina* sp. terhadap kadar kolesterol dan kualitas kuning telur puyuh pada pakan. Dilakukan tahap persiapan pakan dengan pencampuran pakan konsentrat P-600, tepung bayam merah, dan *Spirulina powder*. Kemudian dibagi ke dalam tiga kelompok perlakuan serta dilaksanakan selama 10 hari. Pengujian kadar kolesterol menggunakan metode *Gas Chromatography* serta pengujian data dengan penelitian rancangan acak lengkap (RAL) 3 perlakuan dan 3 kali pengulangan. Penelitian ini dianalisis ragam ANOVA dan Uji Duncan dengan bantuan SPSS. Hasil analisis asam lemak mengandung 27 asam lemak (omega 3, 6, 9). Kualitas kuning telur yang meningkat kemerahan diakibatkan tingginya kandungan omega 3 dan omega 6 serta peningkatan produktivitas telur tanpa adanya pengaruh dari faktor lingkungan. Tepung bayam merah dan *Spirulina* sp. efisien dalam menurunkan kadar kolesterol telur puyuh dengan meningkatkan jumlah asam lemak omega 3 dan 6 pada kuning telur puyuh. Peningkatan omega 3 dan 6 disebabkan karena penambahan *Spirulina* sp. pada pakan.

Kata Kunci : Puyuh, Bayam Merah, *Spirulina* sp., asam lemak, omega 3, omega 6

ABSTRACT

The Effect of Red Spinach (*Amaranthus tricolor* L.) and *Spirulina* sp. On Cholesterol Levels And Egg Yolk Quality of Quail *Coturnix japonica* (Temminck & Schlegel, 1848)

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In Indonesia, the percentage of the elderly population with complaints of cardiovascular disease is very high. This is due to the amount of consumption of quail eggs with high cholesterol levels which are in great demand among the public. Cholesterol is a natural substance with physical properties similar to fat but has a steroid group. Therefore, this study focused on the effect of giving red spinach flour and *Spirulina* sp. against cholesterol levels and the quality of quail egg yolk on feed. The feed preparation stage is carried out by mixing feed concentrate P-600, red amaranth flour, and *Spirulina* powder. Then divided into three treatment groups and carried out for 10 days. Cholesterol levels testing using the Gas Chromatography method and data testing with complete randomized design research (RAL) 3 treatments and 3 repeats. This study analyzed the variety of ANOVA and Duncan Test with the help of SPSS. The results of fatty acid analysis yielded the amount of 27 fatty acids (omega 3, 6, 9). The quality of egg yolks that increase redness due to the high content of omega 3 and omega 6 and increased egg productivity without the influence of environmental factors. Red spinach flour and *Spirulina* sp. Efficient in lowering cholesterol levels of quail eggs by increasing the amount of omega 3 and 6 fatty acids in quail egg yolks. The increase in omega 3 and 6 is caused due to the addition of *Spirulina* sp. on feed.

Keywords : Quail, Red Spinach, *Spirulina* sp., fatty acid, omega-3, omega-6