

ABSTRAK

Pengaruh Pemberian Tepung Cangkang Kerang Darah terhadap Kadar Kortikosteron Feses Burung Kenari (*Serinus canaria*) di Jogja Exotarium Mini Zoo dan Pemerhati Burung Kenari

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Penelitian ini bertujuan untuk mengetahui pengaruh pemberian tepung cangkang kerang darah (*Anadara granosa*) terhadap kadar kortikosteron feses burung kenari (*Serinus canaria*) dan membandingkan hasilnya pada dua lokasi penelitian, yaitu Jogja Exotarium Mini Zoo dan Pemerhati Burung Kenari di Kabupaten Bantul serta pemanfaatan potensi tepung cangkang kerang darah sebagai sumber mineral dalam mendukung keseimbangan fisiologis burung kenari. Sampel terdiri atas tiga ekor burung kenari jantan di Jogja Exotarium Mini Zoo, yaitu dua ekor kelompok perlakuan dan satu ekor kontrol, serta empat ekor burung kenari jantan pada Pemerhati Burung Kenari, yaitu tiga ekor kelompok perlakuan dan satu ekor kontrol. Perlakuan berupa pemberian tepung cangkang kerang darah sebagai sumber mineral tambahan sebanyak 0,1 gr/ekor/hari selama tujuh minggu pada kelompok perlakuan di kedua lokasi penelitian, sedangkan kelompok kontrol tidak diberikan tepung cangkang kerang darah. Parameter yang diamati adalah kadar *Faecal Corticosterone Metabolites* (FCM) pada feses. Sampel feses dikoleksi sebanyak tujuh kali dengan interval mingguan, dikeringbekukan, diekstraksi menggunakan metanol 80%, dan dianalisis menggunakan metode *competitive ELISA*. Data yang dianalisis merupakan kadar kortikosteron feses pada minggu terakhir pengambilan sampel untuk menggambarkan respons fisiologis akhir burung kenari setelah periode perlakuan tujuh minggu, kemudian dianalisis secara deskriptif. Hasil penelitian menunjukkan bahwa kadar kortikosteron feses kelompok perlakuan pada Jogja Exotarium Mini Zoo lebih tinggi dibandingkan kelompok perlakuan pada Pemerhati Burung Kenari di Kabupaten Bantul. Hasil yang sama juga terlihat pada kelompok kontrol, dimana kadar kortikosteron feses kontrol pada Jogja Exotarium Mini Zoo lebih tinggi dibandingkan kelompok kontrol pada Pemerhati Burung Kenari di Kabupaten Bantul. Pada kedua lokasi penelitian, kelompok perlakuan menunjukkan kadar kortikosteron feses yang lebih rendah dibandingkan kelompok kontrol. Secara deskriptif, pemberian tepung cangkang kerang darah berkaitan dengan penurunan kadar kortikosteron feses burung kenari, meskipun respons yang diamati diduga turut dipengaruhi oleh kondisi lingkungan pemeliharaan, variasi individu, dan faktor fisiologis lainnya.

Kata kunci: burung kenari, cangkang kerang darah, kortikosteron feses, ELISA, respons fisiologis.

ABSTRACT

Effect of Blood Cockle Shell Powder Supplementation on Fecal Corticosterone Levels in Canaries (*Serinus canaria*) at Jogja Exotarium Mini Zoo and a Canary Breeder in Bantul Regency

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This study aimed to determine the effect of blood cockle shell powder (*Anadara granosa*) supplementation on fecal corticosterone levels in canaries (*Serinus canaria*) and to compare the results between two study locations, namely Jogja Exotarium Mini Zoo and a canary breeding facility in Bantul Regency, as well as to assess the potential use of blood cockle shell powder as a mineral source to support physiological balance in canaries. The samples consisted of three male canaries at Jogja Exotarium Mini Zoo, including two birds in the treatment group and one bird in the control group, as well as four male canaries at the canary breeding facility, including three birds in the treatment group and one bird in the control group. The treatment consisted of blood cockle shell powder supplementation as an additional mineral source at a dose of 0.1 gr/bird/day for seven weeks in the treatment groups at both locations, while the control groups did not receive blood cockle shell powder supplementation. The observed parameter was the concentration of Fecal Corticosterone Metabolites (FCM) in fecal samples. Fecal samples were collected seven times at weekly intervals, freeze-dried, extracted using 80% methanol, and analyzed using a competitive ELISA method. The analyzed data consisted of fecal corticosterone levels obtained during the final week of sampling to represent the physiological response of canaries after the seven-week treatment period, and the data were evaluated descriptively. The results showed that fecal corticosterone levels in the treatment group at Jogja Exotarium Mini Zoo were higher than those observed in the treatment group at the canary breeding facility in Bantul Regency. A similar pattern was also observed in the control groups, where fecal corticosterone levels in the control group at Jogja Exotarium Mini Zoo were higher than those in the control group at the canary breeding facility in Bantul Regency. At both study locations, the treatment groups showed lower fecal corticosterone levels compared to the control groups. Descriptively, blood cockle shell powder supplementation was associated with lower fecal corticosterone levels in canaries, although the observed responses were also likely influenced by environmental conditions, individual variation, and other physiological factors.

Keywords: canary , blood cockle shell, fecal corticosterone, ELISA, physiological response