

ABSTRAK

Pengaruh Pemberian Tepung Cangkang Kerang Darah (*Anadara granosa*) Terhadap Profil Kadar Hormon Kortikosteroid Pada Burung Kenari (*Serinus canaria*)

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Lomba burung berkicau di Indonesia sedang berkembang pesat dengan burung kenari (*Serinus canaria*) sebagai salah satu spesies yang banyak dipertandingkan berdasarkan ritme, volume, durasi kicauan serta penampilan fisik. Kualitas kicauan burung kenari dipengaruhi oleh beberapa faktor, salah satunya adalah tingkat stres yang dapat diindikasikan melalui kadar hormon kortikosteron. Mineral, seperti seng (Zn) dan magnesium (Mg), diketahui berperan dalam regulasi sumbu hipotalamus–pituitari–adrenokortikal (HPA) yang merupakan sistem respon stres. Cangkang kerang darah (*Anadara granosa*) telah diteliti mengandung mineral yang kaya akan seng (Zn), magnesium (Mg), kalsium (Ca), sodium (Na), besi (Fe), dan kalium (K) sehingga berpotensi digunakan sebagai suplemen pakan yang dikenal sebagai suplemen “Cangri”. Oleh karena itu, penelitian ini bertujuan untuk mengetahui pengaruh pemberian tepung cangkang kerang darah (*Anadara granosa*) terhadap profil mingguan kadar hormon kortikosteron pada burung kenari. Penelitian dilakukan selama 42 hari dengan memberi suplemen “Cangri” sebanyak 0,08 gram/ekor/hari yang dicampurkan pada pakan dan diberikan pada pagi dan sore hari. Sampel feses dikoleksi pada minggu ke-1 hingga minggu ke-7 dan dianalisis menggunakan *Enzyme-Linked Immunosorbent Assay* (ELISA) Kit AB Clonal untuk mengukur kadar hormon kortikosteroid. Hasil penelitian menunjukkan adanya fluktuasi kadar hormon kortikosteroid setiap minggunya. Rata-rata tertinggi terjadi pada minggu ke-6 sebesar $4336,05 \pm 517,94$ ng/gram feses dan rata-rata terendah terjadi pada minggu ke-7 dengan kadar hormon kortikosteroid sebanyak $1793,75 \pm 1706,33$ ng/gram feses. Hasil analisis statistik menunjukkan tidak ada perbedaan signifikan kadar kortikosteron antar waktu pengamatan ($P > 0,05$). Berdasarkan hasil penelitian, dapat disimpulkan bahwa pemberian suplemen tepung cangkang kerang darah (*Anadara granosa*) tidak memberikan pengaruh yang signifikan terhadap profil kadar hormon kortikosteroid pada burung kenari.

Kata kunci: Burung Kenari, Hormon Kortikosteroid, Tepung Cangkang Kerang Darah, Stres

ABSTRACT

The Effect of Blood Cockle (*Anadara granosa*) Shell Powder Supplementation on Corticosterone Hormone Profile in Canary Birds (*Serinus canaria*)

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Bird singing competitions in Indonesia are rapidly growing, with the canary bird (*Serinus canaria*) being one of the most commonly contested species. It is evaluated based on song rhythm, volume, duration, and physical appearance. The quality of canary vocalization is influenced by several factors, such as stress level that can be indicated by corticosterone hormone. Minerals such as zinc (Zn) and magnesium (Mg) are known to play a role in regulating the hypothalamic–pituitary–adrenocortical (HPA) axis, which is the primary system involved in the stress response. Blood cockle shells (*Anadara granosa*) have been reported to contain high level of essential minerals, including zinc (Zn), magnesium (Mg), calcium (Ca), sodium (Na), iron (Fe), and potassium (K), making them a potential feed supplement, known as “Cangri”. Therefore, this study aimed to determine the effect of blood cockle shell powder (*Anadara granosa*) supplementation on the weekly profile of corticosterone hormone levels in canaries. The study was conducted for 42 days by administering “Cangri” supplement at a dose of 0.08 g/bird/day, mixed into the feed and given in the morning and afternoon. Fecal samples were collected from week 1 to week 7 and analyzed using Enzyme-Linked Immunosorbent Assay (ELISA) Kit (AB Clonal) to measure corticosterone levels. The results showed weekly fluctuations in corticosterone levels. The highest mean level was observed in week 6 at 4336.05 ± 517.94 ng/g feces, while the lowest mean level occurred in week 7 at 1793.75 ± 1706.33 ng/g feces. Statistical analysis indicated no significant differences in corticosterone levels across observation periods ($P > 0.05$). In conclusion, supplementation with blood cockle shell powder (*Anadara granosa*) did not have a significant effect on reducing corticosterone levels in canaries. However, there was an indication of a biological effect on the variation of hormone levels.

Keywords: Canary bird, Corticosterone Hormone, Blood Cockle Shell Powder, Stress