

ABSTRAK

PENGARUH PEMBERIAN SUPLEMEN CANGKANG KERANG DARAH SEBAGAI SUMBER ZINC TERHADAP KADAR KORTIKOSTERON BURUNG KENARI (*Serinus canaria*) DI KONSERVASI *EX SITU*

Afifah Firyal Rifai

22/504766/KH/11372

Burung kenari (*Serinus canaria*) merupakan salah satu burung kicau yang banyak dipelihara masyarakat maupun konservasi *ex situ*. Kondisi pemeliharaan pada konservasi *ex situ* berpotensi menimbulkan stres akibat faktor lingkungan, salah satunya intensitas pengunjung yang berdampak pada kondisi fisiologis burung. Stres pada burung dapat diamati melalui peningkatan kadar metabolit kortikosteron. Salah satu upaya yang dapat dilakukan untuk menjaga kondisi fisiologis burung yaitu dengan memberikan suplemen zinc. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian suplemen cangkang kerang sebagai sumber zinc terhadap kadar metabolit kortikosteron burung kenari. Penelitian dilakukan di Jogja Exotarium Mini Zoo menggunakan empat ekor burung kenari jantan berjenis Yorkshire yang terdiri dari tiga individu perlakuan dan satu individu kontrol. Kelompok perlakuan diberi suplementasi cangkang kerang darah sebanyak 0,1 mg/ekor/hari selama tujuh pekan. Sampel feses dikumpulkan setiap minggu dan dianalisis menggunakan metode *competitive ELISA* (*Enzyme-linked Immunosorbent Assay*). Hasil penelitian menunjukkan bahwa rata-rata kadar kortikosteron kelompok perlakuan mengalami penurunan sebesar $723,06 \pm 504,39$ ng/g feses, sedangkan individu kontrol juga mengalami penurunan kadar kortikosteron sebesar 1067,99 ng/g feses. Hasil tersebut menunjukkan bahwa pemberian suplemen cangkang kerang sebagai sumber zinc menunjukkan kecenderungan dalam menjaga kestabilan kadar kortikosteron burung kenari dibandingkan individu kontrol.

Kata Kunci: Burung kenari, stres, kortikosteron, zinc, ELISA

ABSTRACT

THE EFFECT OF BLOOD COCKLE SHELL SUPPLEMENTATION AS A SOURCE OF ZINC ON CORTICOSTERONE LEVELS IN CANARIES (*Serinus canaria*) WITHIN *EX SITU* CONSERVATION

Afifah Firyal Rifai

22/594766/KH/11372

The canary (*Serinus canaria*) is a widely kept songbird in both domestic and *ex situ* conservation settings. Maintenance conditions in *ex situ* conservation have the potential to induce stress due to environmental factors, such as visitor intensity which impacts the bird's physiological conditions. Stress in birds can be monitored through elevated levels of the corticosterone metabolites. Zinc supplementation is one strategy employed to maintain the physiological stability of birds. This study aims to determine the effect of blood cockle shell supplementation as a source of zinc on the corticosterone metabolite levels of canaries. The research was conducted at Jogja Exotarium Mini Zoo using four male Yorkshire canaries, consisting of three treatment individuals and one control individual. The treatment group was administered 0,1 milligrams of blood cockle shell supplementation per bird per day for seven weeks. Fecal samples were collected weekly and analyzed using the competitive ELISA (Enzyme-linked Immunosorbent Assay) method. The results showed that the average corticosterone levels in the treatment group decreased of $723,06 \pm 504,39$ ng/g feces, whereas the control individual also showed a decrease in corticosterone levels by 1067,99 ng/g feces. These findings indicate that the administration of cockle shell supplements as a source of zinc shows a tendency to maintain the stability of corticosterone levels in canaries compared to the control individual.

Keywords: Canary, stress, corticosterone, zinc, ELISA