

ABSTRAK

PROFIL MINGGUAN HORMON TIROKSIN (T₄) PADA SAPI JANTAN SETELAH PEMBERIAN TEPUNG CANGKANG KERANG DARAH DALAM PAKAN

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Indonesia sebagai negara kepulauan memiliki kekayaan hayati laut yang melimpah, salah satunya adalah kerang darah (*Anadara granosa*) yang banyak dikonsumsi oleh masyarakat. Tingginya konsumsi ini menimbulkan limbah cangkang kerang yang berpotensi dimanfaatkan sebagai bahan tambahan pakan ternak berbentuk tepung karena mengandung mineral seperti seng (Zn) yang berperan dalam mendukung kerja kelenjar tiroid. Penelitian ini bertujuan untuk mengetahui profil kadar hormon tiroksin (T₄) pada sapi jantan setelah pemberian tepung cangkang kerang darah selama lima minggu. Penelitian dilakukan di Kampung Ternak Jogja dengan tujuh ekor sapi jantan yang masing-masing diberi tepung cangkang kerang setiap hari sebanyak 90 gram/ekor setiap pagi dan sore. Pengambilan sampel darah dilakukan pada minggu ke-0, 1, 2, 3, 4, dan 5 melalui vena jugularis, kemudian disentrifugasi untuk mendapatkan sampel serum. Sampel serum dianalisis menggunakan metode ELISA untuk mengetahui kadar hormon T₄. Hasil penelitian menunjukkan adanya fluktuasi kadar hormon T₄ selama periode perlakuan, dengan rata-rata kadar tertinggi pada minggu ke-2 sebesar 11,78±7,69 ng/mL dan rata-rata kadar terendah pada minggu ke-3 sebesar 8,48±5,64 ng/mL. Analisis statistik menunjukkan bahwa pemberian tepung cangkang tidak menyebabkan perubahan signifikan ($P>0,05$) terhadap rata-rata kadar hormon T₄ sapi jantan. Berdasarkan hasil penelitian dapat disimpulkan bahwa pemberian tepung cangkang kerang darah tidak berpengaruh signifikan terhadap profil mingguan hormon T₄.

Kata kunci: hormon tiroksin, sapi jantan, tepung cangkang kerang darah, Zn

ABSTRACT

WEEKLY PROFILE OF THYROXINE (T₄) HORMONE IN BULL AFTER ADMINISTRATION OF BLOOD COCKLE SHELL POWDER IN FEED

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Indonesia, as an archipelagic country, possesses abundant marine biodiversity, one of which is the blood cockle (*Anadara granosa*), which is widely consumed by the community. The high consumption results in blood cockle shell waste that has the potential to be utilized as a feed additive in the form of powder, as it contains minerals such as zinc (Zn) that play a role in supporting the function of the thyroid gland. This study aimed to determine the profile of thyroxine (T₄) hormone levels in bull after the administration of blood cockle shell powder for six weeks. The research was conducted at Kampung Ternak Jogja with seven bull, each given blood cockle shell powder daily at a dose of 90 grams/head every morning and evening. Blood sampling was carried out in weeks 0, 1, 2, 3, 4, and 5 through the jugular vein, then centrifuged to obtain serum samples. The serum samples were analyzed using the ELISA method to determine T₄ hormone levels. The results showed fluctuations in T₄ hormone levels during the treatment period, with the highest average level in week 2 at 11.78±7.69 ng/mL and the lowest average level in week 3 at 8.48±5.64 ng/mL. Statistical analysis showed that the administration of shell powder did not cause a significant change ($P>0.05$) in the average T₄ hormone levels of bull. Based on the results of the study, it can be concluded that the administration of blood cockle shell powder did not have a significant effect on the weekly profile of T₄ hormone.

Keywords: thyroxine hormone, bull, blood cockle shell powder, Zn