

ABSTRAK

PENGARUH PEMBERIAN TEPUNG CANGKANG KERANG DARAH (*Anadara granosa*) TERHADAP PROFIL MINGGUAN KADAR TESTOSTERON SAPI JANTAN

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Tepung cangkang kerang darah (*Anadara granosa*) berpotensi sebagai sumber mineral alternatif dalam pakan ternak karena kandungan seng (Zn) yang tinggi. Seng berperan penting dalam fungsi reproduksi jantan, termasuk spermatogenesis dan sekresi hormon testosteron. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian tepung cangkang kerang darah terhadap profil mingguan kadar testosteron sapi jantan. Pada penelitian ini menggunakan empat ekor sapi jantan milik Laboratorium Kampung Ternak Yogyakarta yang berumur 3-4 tahun. Sapi diberi suplementasi tepung cangkang kerang darah sebanyak 90 gram/ekor/hari yang ditambahkan pada pakan basal selama 42 hari. Pengambilan sampel darah melalui vena jugularis dilakukan pada minggu ke-0, 1, 2, 3, 4, 5, dan 6. Serum darah yang terkumpul dilakukan pengukuran kadar hormon testosteron menggunakan metode ELISA (Calbiotech®). Data dianalisis secara statistik menggunakan metode uji One-Way ANOVA. Hasil penelitian menunjukkan bahwa profil kadar testosteron mengalami fluktuasi, kadar tertinggi pada minggu ke-5 mencapai 9.04 ± 2.00 ng/mL, sedangkan kadar terendah pada minggu ke-6 yaitu 5.27 ± 5.00 ng/mL. Hasil analisis statistik menunjukkan pemberian tepung cangkang kerang darah tidak berpengaruh secara signifikan ($p > 0.05$) terhadap profil kadar testosteron mingguan. Berdasarkan hasil penelitian, dapat disimpulkan bahwa pemberian tepung cangkang kerang darah (*Anadara granosa*) pada sapi jantan selama 42 hari tidak memberikan pengaruh yang signifikan ($p > 0.05$) terhadap kadar testosteron setiap minggunya.

Kata kunci: ELISA, pakan basal, profil mingguan, seng (Zn).

ABSTRACT

THE EFFECT OF BLOOD CLAM (*Anadara granosa*) SHELL POWDER SUPPLEMENTATION ON THE WEEKLY PROFILE OF TESTOSTERONE LEVELS OF BULLS

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Blood clam shell flour (*Anadara granosa*) may serve as an alternative source of minerals in animal feed due to its high zinc (Zn) content. Zinc is crucial for male reproductive functions, including spermatogenesis and the secretion of the hormone testosterone. This study aims to evaluate the effect of blood clam shell flour supplementation on testosterone levels in bulls over a six-week period. Four bulls, aged 3-4 years, from the Yogyakarta Cattle Village Laboratory participated in the study. Each bull received a daily supplement of 90 grams of blood clam shell flour mixed with their basal feed for a duration of 42 days. Blood samples were collected from the jugular vein at weeks 0, 1, 2, 3, 4, 5, and 6. The collected serum samples were analyzed for testosterone levels using the ELISA method (Calbiotech®). Statistical analysis was conducted using the One-Way ANOVA test. The results indicated that testosterone levels varied over time, peaking at 9.04 ± 2.00 ng/mL in week 5 and dropping to a low of 5.27 ± 5.00 ng/mL in week 6. However, the statistical analysis revealed that the administration of blood clam shell flour did not have a significant effect ($p > 0.05$) on the weekly testosterone levels. In conclusion, the supplementation of blood clam shell flour (*Anadara granosa*) to bulls over a 42-day period does not significantly affect testosterone levels on a weekly basis ($p > 0.05$).

Keywords: ELISA, standard feed, weekly profile, zinc