

ABSTRAK

PENGARUH PEMBERIAN TEPUNG CANGKANG KERANG DARAH (*Anadara granosa*) SELAMA 42 HARI TERHADAP KADAR HORMON TESTOSTERON PADA SAPI JANTAN

Nurunnada Putri Ferryna

21/479485/KH/10938

Cangkang kerang darah mengandung mineral penting, terutama zinc (Zn), yang diketahui berperan dalam meningkatkan produksi hormon testosteron melalui mekanisme inhibisi enzim aromatase. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian tepung cangkang kerang darah (*Anadara granosa*) selama 42 hari terhadap kadar hormon testosteron pada sapi jantan. Penelitian ini menggunakan tujuh ekor sapi jantan dengan ras yang berbeda-beda, antara lain sapi Madura, sapi Simmental, dan sapi Limousin berumur 3-4 tahun yang diberi tepung cangkang kerang darah sebanyak 90 gram/ekor/hari selama 42 hari. Sampel darah diambil melalui vena jugularis menggunakan jarum 21G pada hari ke-0 dan hari ke-42, kemudian sampel darah didiamkan dan disentrifus untuk mendapatkan serum. Pengukuran kadar testosteron dilakukan sebelum dan sesudah perlakuan dengan menggunakan metode *Competitive ELISA*. Data dianalisis secara statistik dengan uji normalitas dan *Independent Samples T-test* menggunakan program SPSS. Hasil penelitian menunjukkan rata-rata kadar testosteron sebelum perlakuan yaitu $6,70 \pm 3,22$ ng/ml dan setelah perlakuan menjadi $6,14 \pm 3,81$ ng/ml. Analisis statistik menunjukkan pemberian tepung cangkang kerang darah tidak ada pengaruh yang signifikan ($P > 0,05$) terhadap kadar hormon testosteron. Berdasarkan hasil penelitian dapat disimpulkan bahwa pemberian tepung cangkang kerang darah selama 42 hari tidak memberikan pengaruh yang signifikan terhadap kadar testosteron sapi jantan.

Kata kunci: Cangkang kerang darah, ELISA, sapi jantan, testosteron, zinc

ABSTRACT

THE EFFECT OF GIVING BLOOD CLAM SHELL POWDER (*Anadara granosa*) FOR 42 DAYS ON TESTOSTERONE HORMONE LEVELS IN BULL

Nurunnada Putri Ferryna

21/479485/KH/10938

The blood clam shells contain essential minerals, particularly zinc (Zn), which is known to play a role in increasing testosterone hormone production through the inhibition of the aromatase enzyme. This study aimed to determine the effect of blood clam shell (*Anadara granosa*) powder supplementation for 42 days on testosterone levels in bull. The study involved seven bull of different breeds, including Madura, Simmental, and Limousin, aged 3–4 years, which were given 90 grams of blood clam shell powder per head per day for 42 days. Blood samples were collected from the jugular vein using a 21G needle on day 0 and day 42. The blood samples were then left to settle and centrifuged to obtain the serum. Testosterone levels were measured before and after treatment using the Competitive ELISA method. Data were statistically analyzed using a normality test and Independent Samples T-test with the SPSS program. The results showed that the average testosterone level before treatment was $6,70 \pm 3,22$ ng/ml, while after treatment, it was $6,14 \pm 3,81$ ng/ml. Statistical analysis indicated that blood clam shell powder supplementation had no significant effect ($P > 0.05$) on testosterone hormone levels. Based on the research results, it can be concluded that supplementation with blood clam shell powder for 42 days does not have a significant effect on testosterone levels in bull.

Key words: Blood clam shell, Bull, ELISA, testosterone, zinc