

ABSTRAK

KORELASI HORMON TRIIODOTIRONIN (T3) DENGAN HORMON TESTOSTERON SAPI JANTAN MELALUI PEMBERIAN SUPLEMEN BUBUK CANGKANG KERANG DARAH (*Anadara granosa*)

Bitha Fadhila Winastuti
21/481887/KH/10998

Pengolahan limbah cangkang kerang di Indonesia masih belum seimbang dengan jumlah produksi kerang. Bubuk cangkang kerang darah diketahui mengandung mineral seperti zinc (Zn) yang berperan dalam proses metabolisme, termasuk dalam sintesis hormon testosteron. Penelitian ini bertujuan untuk mengetahui korelasi antara hormon triiodotironin (T3) dengan hormon testosteron pada sapi jantan yang diberikan suplemen bubuk cangkang kerang darah (*Anadara granosa*). Penelitian dilakukan terhadap tujuh ekor sapi jantan yang diberikan suplemen bubuk cangkang kerang sebanyak 90 gram/ekor/hari selama enam minggu. Pengambilan sampel darah dilakukan sebelum perlakuan dan setiap minggu selama pemberian suplemen. Pengukuran kadar hormon T3 dan dilakukan menggunakan metode ELISA. Data dianalisis dengan uji normalitas dan uji korelasi Pearson. Hasil menunjukkan bahwa rerata kadar hormon T3 tertinggi $1,39 \pm 0,63$ ng/ml pada minggu kedua dengan kadar testosteron $5,76 \pm 3,66$ ng/ml, sedangkan kadar T3 terendah $1,23 \pm 0,52$ pada minggu keempat saat rerata kadar testosteron $5,45 \pm 2,39$ ng/ml. Hasil korelasi menunjukkan adanya korelasi positif ($r = 0,327$). Berdasarkan hasil penelitian dapat disimpulkan bahwa pemberian suplemen bubuk cangkang kerang darah memberikan korelasi positif antara kadar hormon T3 dan testosteron pada sapi jantan.

Kata kunci: Cangkang kerang darah, korelasi positif, zinc

ABSTRACT

CORRELATION BETWEEN TRIIODOTHYRONINE (T3) HORMONE AND TESTOSTERONE HORMONE IN MALE CATTLE GIVEN BY BLOOD CLAM (*Anadara granosa*) SHELL POWDER

Bitha Fadhila Winastuti

21/481887/KH/10998

The processing of shell waste in Indonesia remains disproportionate to the volume of shellfish production. Blood cockle shell powder is known to contain minerals such as zinc (Zn), which plays a role in metabolic processes, including the synthesis of the testosterone hormone. This study aims to determine the correlation between triiodothyronine (T3) hormone and testosterone hormone in male cattle supplemented by blood cockle (*Anadara granosa*) shell powder. The study was conducted on seven male cattle that were given 90 grams/head/day of blood cockle shell powder for six weeks. Blood samples were collected before the treatment and weekly during the supplementation period. Hormone levels of T3 and testosterone were measured using the ELISA method. Data were analyzed using normality test and Pearson correlation test. The results showed that the highest average T3 hormone level was $1,39 \pm 0,63$ ng/ml in the second week, with a testosterone level of $5,76 \pm 3,66$ ng/ml, while the lowest T3 level was $1,23 \pm 0,52$ in the fourth week when the testosterone level was $5,45 \pm 2,39$ ng/ml. Correlation analysis revealed a positive correlation ($r = 0,327$). Based on these, it can be concluded that supplementation with blood cockle shell powder induces a positive correlation between T3 and testosterone hormone levels in male cattle.

Keywords: blood cockle shell, positive correlation, zinc