

ABSTRAK

POTENSI PEMBERIAN TEPUNG CANGKANG KERANG DARAH (*Anadara granosa*) DAN TEPUNG TULANG IKAN BANDENG LAUT (*Chanos chanos*) TERHADAP KADAR TESTOSTERON PADA DADA AYAM BANGKOK JANTAN

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Ayam Bangkok merupakan ayam yang berasal dari Bangkok, Thailand dan memiliki jumlah peminat sangat banyak di Indonesia. Ayam Bangkok memerlukan karakteristik tubuh kuat dan performa bagus yang sangat dipengaruhi oleh hormon testosteron dan asupan nutrisi seperti protein. Kadar testosteron ditingkatkan dengan pemberian Zn diperoleh dari limbah cangkang kerang darah, berperan sebagai *natural aromatase blocker* sehingga mencegah terjadinya proses aromatisasi atau perubahan testosteron menjadi estrogen. Asupan tambahan tinggi protein diperoleh dari limbah tulang ikan bandeng laut yang diolah menjadi tepung. Penelitian ini menggunakan 12 ekor ayam Bangkok jantan umur 1,5 bulan terbagi menjadi empat kelompok yaitu tiga ekor sebagai kontrol, tiga ekor diberi perlakuan campuran tepung cangkang kerang darah 0,45 g dan tepung tulang bandeng laut 0,225 g atau campuran A, tiga ekor diberi perlakuan Zn sebanyak 0,125 ml, dan tiga ekor diberi perlakuan injeksi testosteron sebanyak 0,1 ml. Perlakuan diberikan setiap hari selama 56 hari dan dilakukan pengambilan sampel dada pada akhir penelitian. Sampel dada diekstraksi dan diukur kadar testosteronnya menggunakan uji ELISA (*Enzyme-linked Immunosorbent Assay*) dan hasilnya dianalisis menggunakan SPSS dengan metode *One Way Anova*. Hasil uji statistik tersebut menunjukkan adanya perbedaan signifikan ($p < 0,05$) pada keempat kelompok terhadap kadar testosteron dada. Hal ini menunjukkan perlakuan pemberian campuran tepung cangkang kerang darah 0,45 g dan tepung tulang bandeng laut 0,225 g atau disebut campuran A memberikan pengaruh nyata dalam meningkatkan kadar testosteron dada ayam Bangkok jantan.

Kata kunci: Ayam Bangkok jantan, cangkang kerang darah, tulang ikan bandeng laut, Zn, testosteron, protein, ELISA

ABSTRACT

POTENTIAL OF BLOOD COCKLE (*Anadara granosa*) SHELL POWDER AND SEA MILKFISH (*Chanos chanos*) BONE POWDER ON BREAST TESTOSTERONE LEVELS IN MALE BANGKOK CHICKENS

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Bangkok chicken originally comes from Bangkok, Thailand which has very large number of enthusiasts in Indonesia. Bangkok chicken requires strong body characteristics and good performance which is strongly influenced by testosterone hormone and intake of nutrients such as protein. The levels of testosterone can be increased by giving Zn that we get from blood cockle shell waste as natural aromatase blocker to prevent the aromatization process or conversion of testosterone to estrogen. Additional high protein intake is obtained from sea milkfish bone waste which is processed into flour. This study used 12 male Bangkok chickens aged 1,5 months which were divided into four groups, three as controls, three treated with a mixture A of 0,45 g blood cockles shell powder and 0,225 g of sea milkfish bone powder, three treated with 0,125 ml Zn, and three treated with 0,1 ml of testosterone injection. The treatments were given everyday for 56 days and breast sample was taken from Bangkok chicken at the end of the study. Breast sample was extracted and testosterone levels were measured using the ELISA (*Enzyme-linked Immunosorbent Assay*) test and the result was analyzed using SPSS with One Way Anova method. The result of these statistical tests showed a significant difference ($p < 0,05$) in the four groups for breast testosterone levels. This shows that the treatment of giving a mixture of 0.45 g of blood cockle shell powder and 0.225 g of sea milkfish bone powder or called mixture A had a significant effect in increasing testosterone levels in male Bangkok chicken breasts.

Keywords: Male Bangkok chickens, blood cockle shell, sea milkfish bone, Zn, testosterone, protein, ELISA