

## ABSTRAK

### POTENSI PEMBERIAN CAMPURAN TEPUNG CANGKANG KERANG DARAH (*Anadara granosa*) DAN TEPUNG TULANG BANDENG LAUT (*Chanos chanos Forsskal*) TERHADAP KADAR TESTOSTERON SERUM AYAM BANGKOK (*Gallus domesticus*) JANTAN

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Ayam bangkok dikenal sebagai ayam aduan yang membutuhkan kekuatan otot untuk mendukung ketangguhannya dalam bertarung. Kekuatan otot berhubungan dengan kadar testosteron dan asupan protein yang cukup. Penelitian ini bertujuan untuk mengetahui potensi pemberian pakan tambahan campuran tepung cangkang kerang darah yang memiliki kandungan *zinc* sebagai *aromatase blocker* dan tepung tulang bandeng laut sebagai sumber protein terhadap kadar testosteron serum ayam bangkok jantan sekaligus digunakan sebagai usaha pemanfaatan limbah. Penelitian ini berlangsung selama 56 hari untuk mengkaji empat kelompok perlakuan yaitu pemberian campuran tepung cangkang kerang darah 0,45 gram/ekor/hari dan tepung tulang bandeng laut 0,225 gram/ekor/hari (K1), pemberian pakan basal sebagai kontrol negatif (K2), pemberian *zinc* sulfat sebanyak 0,125 ml/ekor/hari (K3) dan injeksi testosteron sebanyak 0,1 ml/ekor/hari (K4) terhadap kadar testosteron serum ayam bangkok jantan. Sampel serum darah diambil setiap minggu dan kadar testosteronnya diukur menggunakan ELISA kompetitif. Analisis statistik menggunakan SPSS dengan metode *One Way ANOVA* didapatkan hasil memiliki perbedaan signifikan pada tiap kelompok perlakuan ( $p < 0,05$ ). Kesimpulan pada penelitian ini adalah pemberian campuran tepung cangkang kerang darah dan tepung tulang bandeng laut dalam usaha pemanfaatan limbah secara optimal berpotensi meningkatkan kadar testosteron serum darah pada ayam bangkok jantan.

**Kata kunci:** Ayam bangkok, testosteron, protein, *zinc*.

## ABSTRACT

### THE POTENTIAL OF GIVING A MIXTURE OF BLOOD CLAM SHELL (*Anadara granosa*) POWDER AND SEA MILKFISH (*Chanos chanos* Forsskal) BONE POWDER ON MALE BANGKOK CHICKEN (*Gallus domesticus*) TESTOSTERONE SERUM LEVELS

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Bangkok chicken is known as a fighting cock that requires muscle strength to support its toughness in fighting. Muscle strength is related to testosterone levels and adequate protein intake. This study aims to determine the potential for additional feeding of a mixture of blood clam shell powder which contains zinc as an aromatase blocker and sea milkfish bone powder as a protein source on the serum testosterone levels of bangkok chicken as well as being used as an effort to utilize waste. This study lasted for 56 days to examine four treatment groups, namely the administration of a mixture of blood clam shell powder 0.45 grams/each/day and sea milkfish bone powder 0.225 grams/each/day (K1), basal feeding as a negative control (K2), the administration of zinc sulfate as much as 0.125 ml/each/day (K3) and testosterone injection as much as 0.1 ml/each/day (K4) on the serum testosterone levels of male bangkok chickens. Blood serum samples were taken weekly and testosterone levels were measured using competitive ELISA. Statistical analysis using SPSS with One Way ANOVA method showed that there were significant differences in each treatment group ( $p < 0.05$ ). This study concludes that giving a mixture of blood clam shell powder and sea milkfish bone powder to optimally utilize waste has the potential to increase blood serum testosterone levels in male bangkok chickens.

**Keywords:** Bangkok chicken, testosterone, protein, *zinc*.