INTISARI

KORELASI KADAR TESTOSTERON TERHADAP TESTIS AYAM BANGKOK (*Gallus gallus domesticus*) YANG DIBERI INTERVENSI TEPUNG TULANG BANDENG (*Chanos chanos*) METODE *FREEZE-DRYING*

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Limbah tulang ikan bandeng dapat dimanfaatkan menjadi suplemen pakan yang menunjang kebutuhan untuk perkembangan ayam bangkok. Penelitian ini bertujuan untuk mengetahui korelasi kadar testosteron serum ayam bangkok yang diberi tepung tulang bandeng terhadap panjang, lebar, dan berat testis ayam bangkok. Materi dalam penelitian ini menggunakan 9 ekor ayam bangkok yang dibagi menjadi kelompok perlakuan dan kelompok kontrol. Kelompok perlakuan (P) terdiri dari 5 ekor ayam yang diberi perlakuan berupa pemberian suplemen tepung tulang ikan bandeng sebanyak 3,3 gram selama 5 minggu. Kelompok kontrol (K) tidak diberikan suplemen tepung tulang ikan bandeng. Serum darah ayam diambil setiap minggu dan diakhir masa penelitian ayam dinekropsi untuk diukur panjang, lebar, dan berat testis serta diuji kadar testosteron serumnya. Sampel serum darah diuji dengan metode *competitive* ELISA. Hasil penelitian menunjukkan bahwa ayam yang diberi suplemen tepung tulang ikan bandeng memiliki ukuran testis yang lebih tinggi dibanding ayam kontrol yang tidak yang diberi suplemen tepung tulang ikan bandeng. Hasil analisa uji korelasi *Pearson* dan *Spearman* menunjukkan adanya korelasi lemah kadar testosteron terhadap pertumbuhan panjang testis ($0,20 < p < 0,40$) dan korelasi yang cukup pada lebar ($0,40 < p < 0,70$) dan berat testis ($0,25 < p < 0,50$). Berdasarkan hasil penelitian dapat disimpulkan bahwa terdapat korelasi positif kadar testosteron serum terhadap panjang, lebar, dan berat testis ayam yang diberi intervensi tepung tulang freeze dry.

Kata kunci : Ayam bangkok, ELISA, ikan bandeng, testis, testosteron

ABSTRACT

CORRELATION OF TESTOSTERONE LEVEL TO TESTIS OF THAI GAME FOWL (*Gallus gallus domesticus*) GIVEN AN INTERVENTION OF MILKFISH (*Chanos chanos*) BONE POWDER BY FREEZE-DRYING METHODS

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Milkfish bone waste can be utilized as a feed supplement that supports the needs for the development of thai game fowl. This study aims to determine the correlation of serum testosterone levels of thai game fowl fed with milkfish bone meal on the length, width, and weight of the testes of thai game fowl. The material in this study used 9 thai game fowl which were divided into treatment groups and control groups. The treatment group (P) consisted of 5 fowls that were treated by supplementing milkfish bone powder as much as 3.3 grams for 5 weeks. The control group (K) was not supplemented with milkfish bone powder. Fowls blood serum was taken every week and at the end of the study period the fowl was necropsied to measure the length, width, and weight of the testicles and tested for serum testosterone levels. Blood serum samples were tested by competitive ELISA method. The results showed that fowls supplemented with milkfish bone powder had higher testicular measurement than control fowls that were not supplemented with milkfish bone powder. The results of Pearson and Spearman correlation test analysis showed a weak correlation of testosterone levels on testicular length growth ($0.20 < p < 0.40$) and sufficient correlation on width ($0.40 < p < 0.70$) and testicular weight ($0.25 < p < 0.50$). Based on the results of the study, it can be concluded that there is a positive correlation between serum testosterone levels and the length, width, and weight of chicken testes given the intervention of freeze dry bone meal.

Keywords: Thai game fowl, ELISA, milkfish, testis, testosterone