

**INTI SARI**  
**PENGARUH PEMBERIAN TESTOSTERON DAN *ZINC SULFATE***  
**TERHADAP PERTUMBUHAN BURSA FABRISIUS PADA**  
***DAY OLD CHICKEN LAYER JANTAN***

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Bursa fabrisius merupakan organ limfoid pada ayam muda yang berfungsi sebagai penghasil sel imun. Organ ini akan mengalami involusi seiring dengan pertumbuhan ayam. Involusi organ ini dipengaruhi oleh kadar testosteron dan mineral *zinc* dalam tubuh. Penelitian ini bertujuan untuk mengetahui efek pemberian testostosterone dan *zinc sulfate* terhadap pertumbuhan bursa fabrisius pada *layer* jantan.

Penelitian dilakukan terhadap 48 sampel DOC yang dibagi menjadi dua kelompok perlakuan yaitu kelompok yang diberikan larutan *zinc* sulfat secara per oral dengan dosis 0,2 ml dan kelompok yang diinduksi testostosterone secara subkutan dengan dosis 0,1 ml setiap hari selama 35 hari. pada setiap akhir minggu diambil 5 ekor dari tiap kelompok untuk dieutanasi dan dilakukan nekropsi kemudian bursa fabrisius diukur dan ditimbang.

Hasil penelitian analisis statistic menunjukkan bahwa terdapat perbedaan yang signifikan ( $p < 0,05$ ) antara kedua kelompok perlakuan. Kesimpulan dari penelitian ini adalah pemberian *zinc sulfate* dan testostosterone mampu memberikan efek terhadap pertumbuhan bursa fabrisius.

**Kata kunci:** *Layer* jantan, bursa fabrisius, testosteroon, *zinc sulfate*

## **ABSTRACT**

### **THE EFFECT OF TESTOSTERONE INDUCED AND ZINC SULFATE- TREATED ON THE GROWTH OF BURSA OF THE FABRICIUS IN MALE DAY OLD CHICKEN LAYER**

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Bursa fabrisius is a lymphoid organ in young chickens that functions as a producer of immune cells. This organ will involute along with the growth of the chicken. This organ involution is influenced by the levels of testosterone and the mineral zinc in the body. This study aims to determine the effect of testosterone and zinc sulfate on the growth of the bursa of fabrisius in the male layer.

The study was conducted on 48 samples of DOC which were divided into two groups, the group that was given oral zinc sulfaphate solution with a dose of 0.2 ml and the group that was induced by subcutaneous testosterone at a dose of 0.1 ml every day for 35 days. At the end of each week 5 chickens were taken from each group to be euthanized and performed necropsy, then the fabrisius bursa was measured and weighed.

The results of statistical analysis showed that there was a significant difference ( $p < 0.05$ ) between the two treatment groups. The conclusion of this study is that zinc sulfaphate and testosterone can give an effect on the growth of the bursa of fabrisius.

**Keyword:** Male layer, bursa of fabricius, testosterone, zinc sulfate