

## ABSTRAK

### **PENGARUH UJI TOKSISITAS ORAL AKUT DITRIM<sup>®</sup> TERHADAP PARAMETER BERAT BADAN, HEMATOLOGI, FUNGSI HATI, DAN FUNGSI GINJAL AYAM BROILER (*Gallus gallus domesticus*)**

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Antibiotik sulfonamid, seperti sulfadiazine dan trimethoprim banyak digunakan pada peternakan ayam untuk mengobati penyakit. Ditrim<sup>®</sup> (PT. Better Pharma Co., Ltd) merupakan suatu produk dengan kandungan antibiotik sulfadiazine dan trimethoprim. Penelitian ini bertujuan untuk melihat uji toksisitas oral akut Ditrim<sup>®</sup> melalui parameter berat badan, hematologi, fungsi hati dan ginjal ayam broiler.

Pengujian ini berpedoman pada *Organization for Economic Co-operation and Development* (OECD) *Guidelines* 223 dengan *limit dose test* dosis batas 2000 mg/kg berat badan. Ayam broiler Lohmann berumur 31 hari sebanyak 10 ekor dibagi menjadi kelompok kontrol yang diberi aquades dan perlakuan yang diberi Ditrim<sup>®</sup> yang diberikan dalam dosis tunggal secara oral, lalu dilakukan pengamatan gejala toksisitas selama 14 hari. Penimbangan berat badan dilakukan pada hari ke-3, 7, dan 14. Setelah 14 hari pengamatan, dilakukan pengambilan sampel darah untuk uji hematologi, serta fungsi hati dan fungsi ginjal.

Hasil penelitian menunjukkan bahwa uji toksisitas akut Ditrim<sup>®</sup> tidak berpengaruh secara signifikan ( $P > 0,05$ ) terhadap berat badan, hemoglobin, leukosit, TPP, heterofil, basofil, eosinofil, limfosit, monosit, eritrosit, ALT, AST, BUN, kreatinin, dan ureum. Sementara, hematokrit dan monosit menunjukkan adanya pengaruh secara signifikan ( $P < 0,05$ ) berupa kenaikan pada hematokrit dan penurunan pada monosit.

Kata kunci: Ditrim<sup>®</sup>, uji toksisitas akut, ayam broiler

## ABSTRACT

### **EFFECT OF DITRIM® ACUTE ORAL TOXICITY TEST ON BODY WEIGHT, HEMATOLOGY, LIVER FUNCTION, AND KIDNEY FUNCTION PARAMETERS OF BROILER CHICKENS (*Gallus gallus domesticus*)**

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Sulfonamide antibiotics, such as sulfadiazine and trimethoprim are widely used in chicken farms to treat disease. Ditrim® (PT. Better Pharma Co., Ltd) is a product containing sulfadiazine and trimethoprim antibiotics. This study aimed to examine the acute oral toxicity test of Ditrim® through the parameters of body weight, hematology, liver and kidney function of broiler chickens.

The test was guided by the Organization for Economic Co-Operation and Development (OECD) Guidelines 223 with a limit dose test of 2000 mg/kg body weight. Ten Lohmann broiler chickens aged 31 days were divided into a control group to be given distilled water and treatment group to be given Ditrim®. Aquades and Ditrim® were given in a single dose orally, then symptoms of toxicity were observed for 14 days. Weighing was carried out on days 3, 7 and 14. After 14 days of observation, blood samples were taken for hematological tests, as well as liver and kidney functions.

The results showed that acute oral toxicity test of Ditrim® had no significant effect ( $P > 0,05$ ) on body weight, hemoglobin, leukocytes, TPP, heterophils, basophils, eosinophils, lymphocytes, erythrocytes, ALT, AST, BUN, creatine, and urea, while showing significant effect ( $P < 0,05$ ) on hematocrit and monocytes in the form increase in hematocrit and decrease in monocytes.

**Keywords:** Ditrim®, acute toxicity test, broiler chickens.