

**PENGARUH PENAMBAHAN FITOBIOTIK BUAH MAHKOTA DEWA  
(*Phaleria macrocarpa*) DALAM AIR MINUM TERHADAP  
PROFIL DARAH AYAM BROILER**

Nur Azmi Hidayati  
14/366614/PT/06741

**INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian fitobiotik berupa larutan ekstrak buah mahkota dewa melalui air minum terhadap profil darah ayam broiler. Materi yang digunakan dalam penelitian ini adalah 160 ekor ayam broiler jantan umur 8 hari yang dipelihara pada kandang sistem terbuka. Penelitian terdiri dari 4 perlakuan dan 4 ulangan dan setiap ulangan berisi 10 ekor ayam. Perlakuan terdiri dari air minum tanpa *feed additive* (P0; kontrol negatif), air minum + antibiotik *tetracycline* (P1; kontrol positif), air minum + 2,5% ekstrak buah mahkota dewa (P2), dan air minum + 5,0% ekstrak buah mahkota dewa (P3). Ransum basal yang diberikan disusun berbasis jagung-bungkil kedelai dengan kandungan protein kasar 20,66%, energi termetabolis 2928,30 kcal/kg, Ca 0,76%, dan Pav 0,48%. Parameter yang diamati adalah profil darah berupa hemoglobin (Hb), jumlah sel darah merah (SDM), kadar *packed cell volume* (PCV), jumlah sel darah putih (SDP), diferensial sel darah putih, rasio H/L dan total kolesterol darah. Penelitian menggunakan percobaan dengan rancangan acak lengkap pola searah (*One way analysis of variance*) apabila terdapat perbedaan perlakuan maka dilanjutkan Uji Orthogonal Kontras. Hasil penelitian menunjukkan bahwa penambahan ekstrak buah mahkota dewa berpengaruh nyata ( $P < 0,05$ ) terhadap jumlah sel darah putih (SDP) dan limfosit, namun pemberian ekstrak buah mahkota dewa tidak berpengaruh nyata ( $P > 0,05$ ) terhadap jumlah sel darah merah, hemoglobin, *pack cell volume*, heterofil, eosinofil, basofil, monosit, rasio H/L, dan total kolesterol darah. Kesimpulan dari penelitian ini adalah penambahan ekstrak buah mahkota dewa sebagai *feed additive* ayam broiler tidak dapat meningkatkan jumlah sel darah merah, hemoglobin, *pack cell volume*, heterofil, eosinofil, basofil, monosit, rasio H/L, dan tidak menurunkan total kolesterol darah. Penggunaan ekstrak buah mahkota dewa pada level 5,0% secara signifikan menurunkan jumlah leukosit dan limfosit.

Kata kunci : Ayam broiler, Mahkota dewa, Fitobiotik, Profil darah

## THE EFFECT OF PHYTOBIOTIC *Phaleria macrocarpa* IN DRINKING WATER ON BLOOD PROFILE OF BROILER CHICKEN

Nur Azmi Hidayati  
14/366614/PT/06741

### ABSTRACT

The purpose of this study was to investigate the effect of phytobiotic administration in the form of a *Phaleria macrocarpa* fruit extract in drinking water to the blood profile of broiler chickens. The material used in this study was 160 male broiler chickens aged 8 days maintained in an open system enclosure. The study consisted of 4 treatments and 4 replications and each replication contained 10 chickens. The treatment consisted of drinking water without feed additive (P0; negative control), drinking water + tetracycline antibiotics (P1; positive control), drinking water + 2.5% *Phaleria macrocarpa* fruit extract (P2), and drinking water + 5.0% *Phaleria macrocarpa* fruit extract (P3). Basal ration given was prepared based on corn-soybean meal that contains 20.66% crude protein, 2928,30 kcal/kg metabolizable energy, 0.76% Ca, and 0.48% available phosphorus. The parameters observed were blood profile consists of hemoglobin (Hb), red blood cell count (RBC), levels of packed cell volume (PCV), white blood cell count (WBC), white blood cell differential, H/L ratio, and total blood cholesterol. The study used experiments with one way analysis of variance. Orthogonal contrast test were used to separate between data with significance difference. Results showed that the addition of *Phaleria macrocarpa* fruit extract significantly affect ( $P < 0.05$ ) on the number of white blood cells (WBC) and lymphocytes, but addition of *Phaleria macrocarpa* fruit extract had no significant effect ( $P > 0.05$ ) on the number of red blood cells, hemoglobin, pack cell volume, heterophile, eosinophils, basophils, monocytes, H/L ratio, and total blood cholesterol. The conclusion of this research is addition of *Phaleria macrocarpa* fruit extract as feed additive broiler chicken had no effect on the number of red blood cells, hemoglobin, volume pack cell, heterophils, eosinophils, basophils, monocytes, H/L ratio, and blood total cholesterol. The use of *Phaleria macrocarpa* fruit extract at the level of 5.0% significantly decreased number of leukocytes and lymphocytes.

Keywords: Broiler chickens, *Phaleria macrocarpa*, Phytobiotic, Blood profiles