

ABSTRAK

PENGARUH PEMBERIAN KOMBINASI HERBAL DAN LISOZIM TERHADAP PARAMETER HEMATOLOGI SERTA PERFORMA PERTUMBUHAN AYAM BROILER SEBAGAI ALTERNATIF *FEED* *ADDITIVE* ALAMI

Fauziah Salsabila
22/493565/KH/11222

Penggunaan *Antibiotic Growth Promoter* (AGP) pada ayam broiler semakin dibatasi dan dilarang penggunaannya akibat risiko resistensi antimikroba dan residu pada produk ternak, sehingga diperlukan alternatif alami yang aman dan efektif. Penelitian ini bertujuan untuk menganalisis pengaruh pemberian kombinasi herbal (bawang putih, jahe, kunyit, dan lempuyang) serta lisozim terhadap penambahan bobot badan (PBB), *Feed Conversion Rate* (FCR), dan parameter hematologi ayam broiler. Sebanyak 75 ekor ayam broiler dibagi menjadi tiga kelompok: kelompok AGP, kelompok normal, dan perlakuan, masing-masing terdiri dari 25 ekor dipelihara di Unit Pelaksana Penelitian Perunggasan dan Pelatihan Manajemen Kesehatan Unggas (UP4MKU) Fakultas Kedokteran Hewan Universitas Gadjah Mada. Kelompok AGP diberi pakan CP-11 dan AGP, Kelompok normal diberi pakan CP-11, serta kelompok perlakuan diberikan pakan CP-11 dan kombinasi herbal dan lisozim dengan dosis herbal 10g/kg pakan dan lisozim 10ml/kg pakan selama 28 hari. Pengambilan sampel darah, penimbangan berat badan, perhitungan *Feed Conversion Rate* (FCR), serta analisis hematologi darah meliputi PCV, TPP, Fibrinogen, RBC, WBC, monosit, limfosit, eosinofil, heterofil, basofil, MCV, MCH, dan MCHC pada pemeliharaan hari ke-28. Data dianalisis menggunakan SPSS meliputi uji normalitas, Kolmogorov-Smirnov, Kruskal-Wallis, dan Mann-Whitney. Hasil Penelitian menunjukkan bahwa kelompok perlakuan memiliki peningkatan signifikan ($P < 0,05$) pada PBB dibandingkan kelompok kelompok AGP dan normal, nilai FCR perlakuan tidak berbeda signifikan dengan kelompok AGP. Serta Perlakuan menunjukkan peningkatan signifikan ($P < 0,05$) pada parameter hematologi yaitu monosit, limfosit, heterofil, dan eosinofil dibandingkan kelompok AGP. Penelitian ini menunjukkan kombinasi herbal dan lisozim berpotensi sebagai alternatif pengganti AGP karena mampu meningkatkan pertumbuhan, mempertahankan efisiensi pakan setara AGP, serta mampu meningkatkan status imun ayam broiler. Kombinasi ini dapat direkomendasikan sebagai *feed additive* alami dalam sistem produksi broiler.

Kata kunci: Broiler, Hematologi, Herbal, Lisozim, Performa.

ABSTRACT

EFFECT OF HERBAL AND LYSOZYME COMBINATION ON HEMATOLOGICAL PARAMETERS AND GROWTH PERFORMANCE OF BROILER CHICKENS AS AN ALTERNATIVE NATURAL FEED ADDITIVE

Fauziah Salsabila
22/493565/KH/11222

The use of Antibiotic Growth Promoters (AGPs) in broiler chickens has been increasingly restricted and prohibited due to the risk of antimicrobial resistance and residues in poultry products, so that safe and effective natural alternatives are needed. This study aims to analyze the effect of supplementation a combination of herbs (garlic, ginger, turmeric, and galangal) and lysozyme on body weight gain, Feed Conversion Rate (FCR), and hematological parameters of broiler chickens. A total of 75 broiler chickens were divided into three groups: AGP group, normal group, and treatment, each consisting of 25 chickens kept at UP4MKU, and the Clinical Pathology Laboratory, Faculty of Veterinary Medicine, Universitas Gadjah Mada. The AGP group was given CP-11 feed and AGP, the normal group was given CP-11 feed, and the treatment group was given CP-11 feed and a combination of herbs and lysozyme with a dose of 10g/kg of herbal feed and 10 ml/kg of lysozyme for 28 days. Blood sampling, body weight measurement, FCR calculation, and blood hematology analysis including PCV, TPP, fibrinogen, RBC, WBC, monocytes, lymphocytes, eosinophils, heterophils, basophils, MCV, MCH, and MCHC were conducted on day 28 of the maintenance period. Data were analyzed using SPSS including normality tests, Kolmogorov-Smirnov, Kruskal-Wallis, and Mann-Whitney. The results showed that the treatment group had a significant increase ($P < 0,05$) in BWG compared to the AGP and normal groups, the FCR value of the treatment was not significantly different from the AGP group. And the treatment showed a significant increase ($P < 0,05$) in hematology parameters namely monocytes, lymphocytes, heterophils, and eosinophils compared to the AGP group, meanwhile, the other parameters did not show any significant differences. This study shows that the combination of herbs and lysozyme has the potential at natural feed additive alternative to AGPs because it can enhance hematological indicators associated with immune response of broiler chickens. This combination can be recommended as a natural feed additive in broiler production systems.

Key words: Broiler, Hematological, Herbs, Lysozyme, Performance.