

## ABSTRAK

### **PENGARUH BACILLUS AMYLOLIQUEFACIENS CECT 5940 DENGAN DOSIS INTERMITEN TERHADAP PERFORMA BERAT BADAN DAN PROFIL DARAH AYAM BROILER STRAIN COBB**

**Fadhila Linkya Putri Karina**  
**21/481629/KH/10991**

Penggunaan probiotik dalam industri unggas telah dipertimbangkan sebagai alternatif Antibiotic Growth Promoter (AGP) guna meningkatkan performa dan produktivitas. Penelitian ini bertujuan untuk mengevaluasi efektivitas *Bacillus amyloliquefaciens* CECT 5940 terhadap profil darah dan berat badan ayam broiler strain Cobb. Sebanyak 60 ekor ayam strain Cobb dipelihara di Unit Pelaksana Penelitian Perunggasan dan Pelatihan Manajemen Kesehatan Unggas (UP4MKU) Fakultas Kedokteran Hewan Universitas Gadjah Mada dan dibagi menjadi dua kelompok, yaitu kontrol dan sampel. Kelompok sampel mendapat tambahan probiotik secara intermiten sebesar  $1 \times 10^{10}$  CFU/g dalam air minum dengan dosis 50 gram per 1.000 liter air pada hari ke-1-7 (starter), 13-17 (grower), dan 23-27 (finisher). Pengambilan sampel darah sebanyak 1-3 ml melalui vena brachialis dan disimpan dalam tabung EDTA vacutainer, serta penimbangan berat badan dilakukan pada akhir minggu ketiga dan keempat. Parameter darah rutin yang diamati meliputi jumlah total eritrosit, trombosit, leukosit, monosit, limfosit, eosinofil, heterofil, basofil, kadar hemoglobin, serta nilai MCV, MCH, MCHC, PCV, TPP, dan fibrinogen. Data dianalisis menggunakan uji normalitas, ANOVA (parametrik), dan Mann-Whitney (non-parametrik). Hasil menunjukkan adanya perbedaan signifikan ( $P < 0,05$ ) pada sebagian besar parameter yang diamati, termasuk peningkatan berat badan dan perbaikan imunitas pada kelompok sampel dibandingkan kelompok kontrol. Penelitian ini menunjukkan bahwa pemberian *Bacillus amyloliquefaciens* CECT 5940 secara intermiten berpotensi menjadi alternatif AGP yang efektif dalam meningkatkan performa pertumbuhan dan profil darah ayam broiler.

Kata kunci: probiotik, broiler, darah, pertumbuhan

***ABSTRACT***

**THE EFFECT OF BACILLUS AMYLOLIQUEFACIENS CECT 5940 ON BODY WEIGHT PERFORMANCE AND BLOOD PROFILE OF COBB STRAIN BROILER CHICKENS**

**Fadhila Linkya Putri Karina**  
**21/481629/KH/10991**

The use of probiotics in the poultry industry has been considered a promising alternative to Antibiotic Growth Promoters (AGPs) for enhancing performance and productivity. This study aimed to evaluate the effectiveness of *Bacillus amyloliquefaciens* CECT 5940 on blood profiles and body weight in Cobb strain broiler chickens. A total of 60 Cobb broilers were reared at the Poultry Research and Health Management Training Unit (UP4MKU), Faculty of Veterinary Medicine, Universitas Gadjah Mada, and divided into two groups: control and treatment. The treatment group received intermittent probiotic supplementation at a concentration of  $1 \times 10^{10}$  CFU/g in drinking water at a dose of 50 grams per 1,000 liters during days 1–7 (starter), 13–17 (grower), and 23–27 (finisher). Blood samples (1–3 mL) were collected from the brachial vein into EDTA vacutainer tubes, and body weights were measured at the end of the third and fourth weeks. Routine hematological parameters observed included total erythrocyte, thrombocyte, and leukocyte counts, monocytes, lymphocytes, eosinophils, heterophils, basophils, hemoglobin concentration, and values of MCV, MCH, MCHC, PCV, TPP, and fibrinogen. Data were analyzed using normality tests, ANOVA for parametric data, and the Mann–Whitney test for non-parametric data. The results showed significant differences ( $P < 0.05$ ) in most observed parameters, including increased body weight and improved immunity in the treatment group compared to the control. These findings suggest that intermittent supplementation of *Bacillus amyloliquefaciens* CECT 5940 holds potential as an effective AGP alternative for enhancing growth performance and blood profiles in broiler chickens.

Keywords: probiotics, broiler, blood, growth