

## ABSTRAK

### **PROFIL HEMATOLOGI AYAM PETELUR (*Gallus gallus domesticus*) STRAIN *Lohmann Brown* di PETERNAKAN HARIS FARM KABUPATEN SUKOHARJO**

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Darah merupakan komponen yang memiliki peran besar dalam proses fisiologis pada tubuh ternak, salah satunya adalah ayam petelur (*Gallus gallus domesticus*). Salah satu faktor yang mempengaruhi kondisi darah adalah usia. Penelitian ini bertujuan untuk mengetahui kondisi hematologi pada ayam petelur yang berumur 80 minggu dan 25 minggu. Sembilan belas ekor ayam berumur 80 minggu dan tiga belas ekor ayam berumur 25 minggu diambil sampel darahnya sebanyak 1,5 ml melalui vena *brachialis*. Pengambilan sampel darah dilakukan pada bulan Januari – Februari 2024 di peternakan Haris Farm, Kabupaten Sukoharjo, Jawa Tengah. Pemeriksaan darah meliputi total eritrosit, total leukosit, *Packed Cell Volume* (PCV), hemoglobin (Hb), *Mean Corpuscular Volume* (MCV), *Mean Corpuscular Hemoglobin* (MCH), dan *Mean Corpuscular Hemoglobin Concentration* (MCHC). Hasil penelitian menunjukkan ayam umur 25 minggu memiliki rata – rata eritrosit  $6,79 \pm 2,7 \times 10^6 \text{ sel}/\mu\text{l}$ ; leukosit  $19,17 \pm 5,82 \times 10^3 \text{ sel}/\mu\text{l}$ ; PCV  $28,3 \pm 3,75\%$ ; Hb  $7,81 \pm 1,13 \text{ g/dL}$ ; MCV  $45,38 \pm 11,37 \text{ fL}$ ; MCH  $12,84 \pm 4,42 \text{ pg}$ ; dan MCHC  $28,18 \pm 6,13\%$ . sedangkan ayam umur 80 minggu memiliki rata – rata eritrosit  $3,30 \pm 1,96 \times 10^6 \text{ sel}/\mu\text{l}$ ; leukosit  $9,01 \pm 3,76 \times 10^3 \text{ sel}/\mu\text{l}$ ; PCV  $24,73 \pm 3,07\%$ ; Hb  $10,17 \pm 2,42 \text{ g/dL}$ ; MCV  $98,58 \pm 52,8 \text{ fL}$ ; MCH  $39,41 \pm 20,07 \text{ pg}$ ; dan MCHC  $41,49 \pm 10,3\%$ . Penelitian ini menunjukkan ayam berumur 25 minggu memiliki profil hematologi yang lebih tinggi dibandingkan umur 80 minggu namun keduanya masih dalam kisaran normal.

**Kata kunci:** ayam petelur, hematologi, umur

## **ABSTRACT**

### **HEMATOLOGICAL PROFILE OF LAYING HENS (*Gallus gallus domesticus*) Lohmann Brown STRAIN in HARIS FARM FARM, SUKOHARJO DISTRICT**

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Blood is a component that has a major role in physiological processes in the body of livestock, one of which is laying hens (*Gallus gallus domesticus*). One of the factors that affect blood condition is age. This study aims to determine the hematological condition of 80-week-old and 25-week-old laying hens. Nineteen 80-week-old chickens and thirteen 25-week-old chickens were sampled with 1.5 ml of blood through the brachial vein. Blood sampling was conducted in January - February 2024 at Haris Farm, Sukoharjo Regency, Central Java. Blood examination included total erythrocytes, total leukocytes, Packed Cell Volume (PCV), hemoglobin (Hb), Mean Corpuscular Volume (MCV), Mean Corpuscular Hemoglobin (MCH), and Mean Corpuscular Hemoglobin Concentration (MCHC). The results showed that 25-week-old chickens had mean erythrocytes  $6.79 \pm 2.7$  106 cells/ $\mu$ l; leukocytes  $19.17 \pm 5.82$  103 cells/ $\mu$ l; PCV  $28.3 \pm 3.75\%$ ; Hb  $7.81 \pm 1.13$  g/dL; MCV  $45.38 \pm 11.37$  fL; MCH  $12.84 \pm 4.42$  pg; and MCHC  $28.18 \pm 6.13\%$ . Meanwhile, 80-week-old chickens had average erythrocytes  $3.30 \pm 1.96$  106 cells/ $\mu$ l; leukocytes  $9.01 \pm 3.76$  103 cells/ $\mu$ l; PCV  $24.73 \pm 3.07\%$ ; Hb  $10.17 \pm 2.42$  g/dL; MCV  $98.58 \pm 52.8$  fL; MCH  $39.41 \pm 20.07$  pg; and MCHC  $41.49 \pm 10.3\%$ . This study showed that 25-week-old chickens had a higher hematological profile than 80-week-old chickens but both were still within the normal range.

**Keyword:** layers, hematology, age