ABSTRACT

POSITIONAL EFFECTS ON GROWTH PERFORMANCE OF LAYER HENS IN A CLOSED HOUSE SYSTEM AT SOSO FARM

This study analyzes the effect of temperature and humidity distribution on the growth of Isa Brown laying hens in a closed house system. Observations were conducted over five weeks (from 18 to 22 weeks of age) at two locations in the house: the inlet (front) and the outlet (back). Temperature and humidity were measured three times daily, while body weight was recorded weekly on 80 hens per location. Results showed higher temperatures and lower humidity at the outlet compared to the inlet, indicating uneven ventilation distribution. Although body weights exceeded the standard and tended to be higher at the inlet, the difference was not statistically significant ($p > 0.05$). Uneven temperature and humidity distribution affected hen performance, especially toward the end of the pullet phase. Regular monitoring and proper ventilation management are essential to support optimal growth.

Keywords: laying hens, Isa Brown, temperature, humidity, closed house, growth, inlet–outlet.

RINGKASAN

PERBEDAAN POSISI AYAM TERHADAP PERTUMBUHAN AYAM PETELUR FASE LAYER DI KANDANG *CLOSED HOUSE* SOSO FARM

Penelitian ini menganalisis pengaruh distribusi suhu dan kelembaban terhadap pertumbuhan ayam ras petelur strain *Isa Brown* dalam kandang tertutup *(closed house).* Pengamatan dilakukan selama lima minggu (umur 18–22 minggu) di dua titik kandang: *inlet* (depan) dan *outlet* (belakang). Suhu dan kelembaban diukur tiga kali sehari, sedangkan berat badan ditimbang mingguan pada 80 ekor ayam per lokasi. Hasil menunjukkan suhu *outlet* lebih tinggi dan kelembaban lebih rendah dibanding *inlet,* menunjukkan distribusi ventilasi yang tidak merata. Meskipun berat badan ayam melebihi standar dan cenderung lebih tinggi di *inlet,* perbedaannya tidak signifikan ($p > 0,05$). Distribusi suhu dan kelembaban yang tidak merata memengaruhi performa ayamdi fase layer. Pemantauan dan pengaturan ventilasi secara berkala penting untuk mendukung pertumbuhan optimal.

Kata kunci: ayam petelur, Isa Brown, suhu, kelembaban, kandang tertutup, pertumbuhan, inlet–outlet.