ANALISIS KORELASI DAN REGRESI: HUBUNGAN ANTARA SUHU DAN KELEMBAPAN TERHADAP PRODUKTIVITAS AYAM BROILER DALAM KANDANG *CLOSED HOUSE*

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INTISARI

Menjaga kebersihan dan kontrol kondisi lingkungan dalam kandang *closed house* sangat penting untuk produktifitas ayam broiler. Tujuan penelitian ini untuk mengetahui korelasi dan regresi antara suhu dan kelembapan pada kandang ayam broiler dengan produktivitas ayam broiler (konsumsi pakan, pertambahan bobot badan, dan konversi pakan) di *Closed House* Charoen Pokphand Fakultas Peternakan UGM. Penelitian ini dilakukan sebagai bahan evaluasi manajemen lingkungan dalam kandang melalui korelasi dan regresi faktor lingkungan terhadap produktivitas ayam broiler skala industri. Oleh karena itu, pembacaan grafik pada hasil pembahasan dimaksudkan untuk melihat korelasi dan regresi setiap faktor lingkungan terhadap produktivitas, tanpa melihat efek biologis ayam broiler. Pengambilan data lingkungan diambil sebanyak empat kali sehari yaitu pagi (07.00-08.00), siang (12.00-13.00), sore (16.00-17.00), dan malam (00.00-01.00) kemudian di rata-rata, sedangkan produktivitas ayam broiler diambil sebanyak satu kali sehari selama pemeliharaan. Data penelitian dianalisis statistik menggunakan korelasi dan regresi (*R-Square*) *linear* berganda dengan aplikasi *Microsoft Excel*. Hasil penelitian menunjukkan bahwa korelasi suhu dan kelembapan serta nilai regresi terhadap produktivitas ayam broiler tergolong faktor kuat, dengan nilai yang sesuai sebesar -0,850, 0,846, 0,722, dan 0,717. Nilai ini menunjukkan bahwa faktor lingkungan berupa suhu dan kelembapan sangat penting diperhatikan dalam manajemen pemeliharaan ayam broiler.

Kata kunci: *Closed house*, Faktor lingkungan, Produktivitas

CORRELATION AND REGRESSION ANALYSIS: THE RELATIONSHIP BETWEEN TEMPERATURE AND HUMIDITY TO BROILER CHICKEN PRODUCTIVITY IN CLOSED-HOUSE CAGES

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ABSTRACT

Maintaining cleanliness and controlling the environment in closed-house cages is essential to the productive production of broiler chickens. The purpose of this research is to ascertain the relationship and regression between temperature and humidity in broiler chicken cages and their productivity (feed consumption, gain, and feed conversion) at the Charoen Pokphand Faculty of Animal Science UGM Closed House. By correlating and regressing environmental variables to the productivity of industrial-scale broiler chickens, this study was carried out to assess environmental management in cages. Hence, without examining the biological impacts of broiler chickens, the purpose of examining the graph in the discussion findings is to see the correlation and regression of each environmental element to production. Four times a day, namely in the morning (07.00–08.00), midday (12.00–13.00), afternoon (16.00–17.00), and night (00.00–01.00), environmental data were collected. In contrast, broiler chicken productivity was recorded once a day on average during the rearing process. Using the Microsoft Excel program, multiple linear correlation, and regression (R-Square) were used to statistically assess the research data. The study's findings indicate that the temperature and humidity correlation and regression values on broiler chicken productivity were classified as strong factors, with corresponding values of -0.850, 0.846, 0.722, and 0.717. This figure demonstrates how crucial it is to consider environmental elements like humidity and temperature when producing broiler chickens.

Keywords: Closed house, Environmental factors, Productivity