

ABSTRAK

HUBUNGAN ANTARA UKURAN-UKURAN TUBUH DAN VOLUME AMBING DENGAN PRODUKSI SUSU KAMBING SAPERA (STUDI KASUS DI PUSAT PELATIHAN DAN PEDESAAN SWADAYA TELAGA RIZQY 21, METRO TIMUR)

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Penelitian ini bertujuan untuk mengetahui hubungan antara ukuran-ukuran tubuh panjang badan dan lingkar dada dan volume ambing dengan produksi susu kambing Sapera. Penelitian dilaksanakan di Pusat Pelatihan dan Pedesaan Swadaya Telaga Rizqy 21, Metro Timur, Provinsi Lampung, menggunakan 20 ekor kambing Sapera dengan kriteria laktasi bulan III–IV dan paritas III–IV. Data yang diamati meliputi panjang badan, lingkar dada, volume ambing, dan produksi susu harian. Analisis data menggunakan korelasi, regresi linier sederhana, dan regresi linier berganda. Hasil penelitian menunjukkan bahwa panjang badan dan lingkar dada memiliki hubungan positif tetapi lemah terhadap produksi susu, masing-masing dengan nilai koefisien korelasi (r) sebesar 0,128 dan 0,286. Sementara itu, volume ambing menunjukkan hubungan positif yang signifikan ($r = 0,581$; $p < 0,05$) dengan produksi susu, dan merupakan indikator terbaik untuk memprediksi produksi susu dengan persamaan regresi $\hat{Y} = 3,75 + 0,82X_3$. Hasil analisis regresi linier berganda menghasilkan persamaan model $\hat{Y} = 265,222 - 17,084X_1 + 14,498X_2 + 0,845X_3$ dengan koefisien determinasi (R^2) sebesar 0,445, yang berarti bahwa 44,5% variasi produksi susu dapat dijelaskan oleh ketiga variabel secara bersama-sama. Dari penelitian ini disimpulkan bahwa volume ambing merupakan variabel yang paling berpengaruh signifikan terhadap produksi susu, dan ketiga variabel dapat digunakan secara simultan untuk menduga produksi susu kambing Sapera.

Kata Kunci: Kambing Sapera, Ukuran Tubuh, Volume Ambing, Produksi Susu, Korelasi, Regresi

ABSTRACT

THE RELATIONSHIP BETWEEN BODY MEASUREMENTS AND UDDER VOLUME WITH MILK PRODUCTION IN SAPERA GOATS (A CASE STUDY AT THE TELAGA RIZQY 21 SELF SUPPORTING RURAL TRAINING CENTER, EAST METRO)

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This study aimed to investigate the relationship between body measurements specifically body length and chest girth and udder volume with milk production in Sapera goats. The research was conducted at the Telaga Rizqy 21 Self-Supporting Rural Training Center, East Metro, Lampung Province, using 20 Sapera goats in their third to fourth month of lactation and third to fourth parity. The observed variables included body length, chest girth, udder volume, and daily milk yield. Data were analyzed using correlation analysis, simple linear regression, and multiple linear regression. The results showed that body length and chest girth had a positive but weak correlation with milk production, with correlation coefficients (r) of 0.128 and 0.286, respectively. Meanwhile, udder volume showed a significant positive correlation with milk production ($r = 0.581$; $p < 0.05$), and was identified as the best predictor through the regression equation $\hat{Y} = 3.75 + 0.82X_3$. Multiple linear regression analysis yielded the model $\hat{Y} = 265.222 - 17.084X_1 + 14.498X_2 + 0.845X_3$, with a coefficient of determination (R^2) of 0.445, indicating that 44.5% of the variation in milk production could be explained by the three variables combined. It was concluded that udder volume had the most significant influence on milk production, and that all three variables could be used simultaneously to estimate milk yield in Sapera goats.

Keywords: Sapera Goats, Body Measurements, Udder Volume, Milk Production, Correlation, Regression