

ABSTRACT

ESTIMATION OF BODY WEIGHT OF LIMPO CATTLE USING BODY VOLUME MEASUREMENT IN KPT. MAJU SEJAHTERA, TANJUNG SARI DISTRICT, LAMPUNG SELATAN REGENCY

By

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This research aimed to determine the correlation and regression between body weight, body volume, and body measurement (body length and chest girth) in Limpo Cattle in the KPT. Maju Sejahtera, Tanjung Sari District, South Lampung Regency. This research was carried out on June, 1--5, 2022 in the KPT. Maju Sejahtera, Tanjung Sari District, South Lampung Regency. This research used a survey method with a sampling technique that is purposive sampling with the criteria for cows being 2.5--4.5 years old, non-pregnant or pregnant <2 mounth, Body Condition Score (BCS) 2--4 and not aggressive. The observed variables included body length, chest girth, body volume, and body weight. The data obtained were tabulated using the excel program then data on body length, chest girth, and body volume were analyzed for correlation and regression with body weight of Limpo Cattle. Correlation and regression analysis between the independent variable and the dependent variable used the R program. The results showed that body length, chest girth, and body volume were highly significant correlated and had a highly significant effect on changes in body weight. It was concluded that the correlation value between body length, chest girth, and body volume to body weight of Limpo cattle weve 0.9140, 0.9264, and 0.9384, respectively, this means that all the three independent variables have very strong correlation or relationship with dependent variable. Regression equation between body length (PB), chest girth (LD), and body volume (VT) to body weight weve $BT = -668.5252 + 7.8586PB$, $BT = -302.7049 + 3.8272LD$, and $BT = 110.5000 + 0.0008VT$, respectively, and has a coefficient of determination of 0.8354, 0.8583, and 0.8805, respectively.

Keyword : Body weight, Chest girth, Body length, Limpo Cattle, Body volume

ABSTRAK

PENDUGAAN BOBOT TUBUH SAPI LIMPO MENGGUNAKAN PENGUKURAN VOLUME TUBUH DI KPT. MAJU SEJAHTERA KECAMATAN TANJUNG SARI KABUPATEN LAMPUNG SELATAN

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Penelitian ini bertujuan untuk mengetahui korelasi dan regresi antara bobot tubuh dengan volume tubuh, dan ukuran-ukuran tubuh (panjang badan dan lingkar dada) pada sapi Limpo di KPT. Maju Sejahtera, Kecamatan Tanjung Sari, Kabupaten Lampung Selatan. Penelitian ini dilaksanakan pada 1--5 Juni 2022 di KPT. Maju Sejahtera, Kecamatan Tanjung Sari, Kabupaten Lampung Selatan. Penelitian ini menggunakan metode survei dengan teknik pengambilan sampel yaitu purposive sampling dengan kriteria umur sapi 2,5--4,5 tahun, tidak bunting atau bunting <2 bulan, BCS 2--4 dan tidak agresif. Peubah yang diamati meliputi panjang badan, lingkar dada, volume tubuh, dan bobot tubuh. Data yang diperoleh ditabulasi menggunakan program excel kemudian data panjang badan, lingkar dada, dan volume tubuh dianalisis korelasi dan regresinya dengan bobot tubuh sapi Limpo. Analisis korelasi dan regresi antara variable independen dan variable dependen menggunakan program R. Hasil penelitian menunjukkan bahwa panjang badan, lingkar dada, dan volume tubuh berkorelasi sangat nyata dan berpengaruh sangat nyata terhadap perubahan bobot tubuh. Disimpulkan bahwa nilai korelasi antara panjang badan, lingkar dada, dan volume tubuh terhadap bobot tubuh sapi Limpo mempunyai nilai korelasi masing-masing yaitu 0,9140; 0,9264; dan 0,9384, hal ini berarti ketiganya mempunyai korelasi atau hubungan yang sangat kuat, sedangkan persamaan regresi antara panjang badan (PB), lingkar dada (LD), dan volume tubuh (VT) terhadap bobot tubuh masing-masing yaitu $BT = -668,5252 + 7,8586PB$; $BT = -302,7049 + 3,8272LD$; dan $BT = 110,5000 + 0,0008VT$, dan memiliki koefisien determinasi masing-masing yaitu 0,8354; 0,8583; dan 0,8805.

Kata kunci : Bobot tubuh, Lingkar dada, Panjang badan, Sapi Limpo, Volume tubuh