

HUBUNGAN ANTARA *BODY CONDITION SCORE* DENGAN PRODUKSI DAN KADAR LEMAK SUSU SAPI PERAH *FRIESIAN* *HOLSTEIN* PADA AWAL LAKTASI DI KOPERASI SAPI MERAPI SEJAHTERA

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INTISARI

Penelitian ini bertujuan untuk mengetahui hubungan antara *body condition score* (BCS) pada awal laktasi dengan produksi dan kadar lemak susu sapi perah Friesian Holstein (FH). Penelitian dilakukan di Peternakan milik Koperasi Sapi Merapi Sejahtera (Samesta), Cangkringan, Sleman pada bulan Maret sampai April 2022. Materi yang digunakan dalam penelitian adalah 13 ekor sapi perah FH yang berada di fase awal laktasi bulan kedua sampai keempat. Variabel yang diamati meliputi pemberian pakan, *body condition score* (BCS), produksi susu, kadar lemak susu, dan konsumsi pakan. Konsumsi pakan dianalisis menggunakan analisis proksimat dan bahan pakan dianalisis bahan kering (BK) dan bahan organik (BO). Data dianalisis menggunakan metode regresi dan korelasi dengan bantuan program *statistical package for the social science* (SPSS) versi 25. Hasil penelitian menunjukkan bahwa sapi perah di peternakan Koperasi Samesta memiliki nilai BCS 1 sampai 3 dengan rata-rata produksi susu 16,23 liter/ekor/hari dan kadar lemak susu $3,82 \pm 1,893\%$. Skor BCS 1 memiliki rata-rata produksi susu $7,79 \pm 2,44$ liter/ekor, BCS 2 sebesar $10,21 \pm 1,36$ liter/ekor, dan BCS 3 sebesar $10,92 \pm 0,83$ liter/ekor. Hasil persentase kadar lemak susu untuk skor BCS 1 sebesar $3,83 \pm 2,205\%$, skor BCS 2 sebesar $4,32 \pm 2,091\%$, dan skor BCS 3 sebesar $3,46 \pm 1,369\%$. Kecupukan nutrisi sapi perah masing-masing menunjukkan nilai negatif pada BK 4,081 kg/hari, SK 0,003 kg/hari, dan TDN 0,206 kg/hari, sedangkan nilai positif pada PK 0,135 kg/hari. Hubungan BCS dengan produksi susu memiliki nilai signifikansi 0,016 ($P < 0,05$) dan koefisien korelasi 0,653. Hubungan BCS dengan kadar lemak susu memiliki nilai signifikansi 0,602 ($P > 0,05$) dan koefisien korelasi -0,16. Kesimpulan dari penelitian ini adalah skor BCS memiliki pengaruh nyata dan hubungan yang kuat terhadap produksi susu, sedangkan skor BCS tidak berpengaruh nyata dan memiliki hubungan negatif terhadap kadar lemak susu.

Kata kunci: *Body condition score*, Sapi perah FH, Produksi susu, Kadar lemak susu, Awal laktasi.

CORRELATION BETWEEN BODY CONDITION SCORE WITH PRODUCTION AND FAT LEVELS OF FRIESIAN HOLSTEIN DAIRY COWS AT EARLY LACTATION AT COW SEJAHTERA MERAPI COOPERATIVE FARM

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ABSTRACT

The purpose of this study was to determine the relationship between Body Condition Score (BCS) at the beginning of lactation on milk production and milk fat content of Friesian Holstein dairy cows (FH). The study was held on Kelompok Ternak Sapi Merapi Sejahtera (Samesta), Cangkringan, Sleman from March to April 2022. The material used in this study was 13 FH dairy cows which were in the early lactation in the second to fourth months. The variables observed included feeding, body condition score (BCS), milk production, milk fat content, and feed consumption. The feed intake was analyzed with proximate analysis and the feed composition were analyzed with dry matter (BK) and organic matter (BO). Data were analyzed using regression and correlation methods with the help of the statistical package for the social science (SPSS) program. The results showed that dairy cows at the Samesta Cooperative farm had a BCS value of 1 to 3 with an average milk production of 16.23 liters/cow/day and the milk fat content of $3.82 \pm 1.893\%$. BCS 1 had an average milk production of 7.79 ± 2.44 liters/cow, BCS 2 was 10.21 ± 1.36 liters/cow, and BCS 3 was 10.92 ± 0.83 liters/cow. The percentage of milk fat content for the BCS 1 was $3.83 \pm 2.205\%$, BCS 2 was $4.32 \pm 2.091\%$, and BCS 3 was $3.46 \pm 1.369\%$. The nutritional adequacy of dairy cows showed a negative value at BK 4.081 kg/day, SK 0.003 kg/day, and TDN 0.206 kg/day, while it showed a positive value at PK 0.135 kg/day. The relationship between BCS and milk production has a significance value of 0.016 ($P < 0.05$) and a correlation coefficient of 0.653. The relationship between BCS and milk fat content has a significance value of 0.602 ($P > 0.05$) and a correlation coefficient of -0.16. The result of this study is the BCS score has a significant value and strong correlation with milk production, while the BCS score had no significant effect and has a negative correlation with milk fat content.

Keywords: *Body condition score, Friesian Holstein dairy cow, milk production, percentage milk fat, early lactation*