

KONSUMSI PAKAN, MILK UREA NITROGEN, PROTEIN SUSU DAN BODY CONDITION SCORE SAPI PERAH LAKTASI PADA MUSIM HUJAN DI CANGKRINGAN SLEMAN

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INTISARI

Penelitian ini bertujuan untuk mengetahui konsumsi pakan, *milk urea nitrogen* (MUN), protein susu dan *body condition score* (BCS) sapi perah laktasi pada musim hujan. Penelitian ini dilaksanakan di Cangkringan, Sleman mulai bulan September sampai Oktober 2019. Penelitian ini menggunakan 20 ekor sapi perah laktasi ke-1 sampai 3 dengan nilai BCS 2 sampai 3 dan umur 2,5 sampai 6 tahun serta bobot badan (BB) rata-rata $472,25 \pm 68,53$ kg. Pakan yang diberikan adalah hijauan dan konsentrat dengan proporsi sesuai yang biasa diberikan oleh peternak. Air minum diberikan secara *ad libitum*. Parameter yang diamati adalah komposisi nutrien bahan pakan, konsumsi nutrien pakan, MUN, protein susu, BB dan BCS. Analisis proksimat pakan dan protein susu dilaksanakan di Laboratorium Ilmu Ternak Perah dan Industri Persusuan, Fakultas Peternakan. Analisis MUN dilaksanakan di Laboratorium Penelitian dan Pengujian Terpadu, Universitas Gadjah Mada. Komposisi nutrien bahan pakan dianalisis dengan metode proksimat untuk mengetahui bahan kering (BK), bahan organik (BO), protein kasar (PK), serat kasar (SK) serta *total digestible nutrient* (TDN). Kadar MUN dianalisis dengan metode enzimatik memakai reagen kit urea *Stanbio[®] urea nitrogen*, sedangkan protein susu dianalisis dengan metode *kjeldahl*. Data dianalisis dengan metode deskriptif menggunakan *Microsoft Excel* dan analisis korelasi regresi menggunakan SPSS. Hasil penelitian menunjukkan konsumsi BK $18,76 \pm 3,27$ kg BK/ekor/hari BO $17,05 \pm 3,86$ kg BK/ekor/hari, PK $2,55 \pm 0,40$ kg BK/ekor/hari, SK $6,07 \pm 1,49$ kg BK/ekor/hari dan TDN $8,00 \pm 1,44$ kg BK/ekor/hari. Data rata-rata MUN $11,11 \pm 2,54$ mg/dL dan protein susu $3,09 \pm 0,30\%$. Data rata-rata BB $472,25 \pm 68,53$ kg dan BCS adalah $2,90 \pm 0,52$. Konsumsi BK berkorelasi positif terhadap BB dengan koefisien korelasi 0,27 dan mempunyai hubungan yang lemah. Konsumsi PK berkorelasi negatif dengan MUN dengan koefisien korelasi -0,25 dan berhubungan lemah. Konsumsi BK tidak berhubungan dengan BCS dan mempunyai koefisien korelasi 0,198. Konsumsi PK tidak berhubungan dengan protein susu dan mempunyai koefisien korelasi 0,127. Kesimpulan dari penelitian ini adalah rata-rata konsumsi pakan sapi perah laktasi di Cangkringan Sleman pada musim hujan mencukupi kebutuhan sapi perah dan memiliki kandungan protein susu dan MUN pada kisaran normal sedangkan nilai BCS di bawah kisaran normal.

Kata kunci : Sapi perah laktasi, Konsumsi pakan, Musim hujan, *Milk urea nitrogen*, Protein susu, *Body condition score*

FEED CONSUMPTIONS, MILK UREA NITROGEN, MILK PROTEIN AND BODY CONDITION SCORE OF LACTATING DAIRY COWS ON RAINY SEASON IN CANGKRINGAN SLEMAN

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ABSTRACT

This study was conducted to determine the feed consumptions, milk urea nitrogen (MUN), milk protein and body condition score (BCS) of lactating dairy cows on rainy season. The study implemented in Cangkringan, Sleman, Yogyakarta on from September to October 2019. This study used 20 lactating dairy cows 1 to 3, with BCS values 2 to 3 and age 2.5 to 6 years and average body weight of 472.25 ± 68.53 kg. The feed given is forage and concentrate with the proportions normally by farmers. Drinking water is given ad libitum. The parameters observed were nutrient compositions of feed ingredients, consumption of feed nutrients MUN, milk protein, body weight (BW) and BCS. Proximate analysis of feed and milk protein was analysed in Laboratory of Dairy Science and Milk Industry Faculty of Animal Science Universitas Gadjah Mada. Content of MUN were analysed in Integrated Research and Testing Laboratory Universitas Gadjah Mada. Nutrient composition of feed ingredients was analyzed by proximate method to determine the dry matter (DM), organic matter (OM), crude protein (CP), crude fiber (CF) and total digestible nutrient (TDN). Levels of MUN were analyzed by enzymatic methods using the urea Stanbio® urea nitrogen reagent kit, while milk protein was analyzed by the kjeldahl method. Data were analyzed by descriptive method using Microsoft Excel and regression correlation analysis using SPSS. Results showed consumptions of DM 19.09 ± 4.39 , OM 17.05 ± 3.86 , CP 2.55 ± 0.40 , CF 6.07 ± 1.49 and TDN 8.00 ± 1.44 (kg DM/head/day). The average data of MUN was 11.11 ± 2.54 mg/dL and milk protein was $3.09 \pm 0.30\%$. The average BW was 472.25 ± 68.53 kg and BCS was 2.90 ± 0.52 . Consumption of DM is positively correlated to BW with a correlation coefficient of 0.27 and has a weak relationship. Consumption of CP is negatively correlated with MUN with a correlation coefficient of -0.25 and is weakly correlated. Consumption of DM is not related to body condition score and has a correlation coefficient of 0.198. Consumption of CP is not related to milk protein and has a correlation coefficient of 0.127. The conclusion of this study is the average feed consumption the dairy in Cangkringan, Sleman on rainy season has been fulfilled and has a content of milk protein and MUN in the normal range, while the BCS content is under the normal range.

Keywords: Lactating dairy cows, Feed consumption, Rainy season, Milk urea nitrogen, Milk protein, Body condition score