

ABSTRAK

HUBUNGAN ANTARA KONSUMSI BAHAN KERING, PROTEIN KASAR, DAN SERAT KASAR RANSUM DENGAN BAHAN KERING TANPA LEMAK DAN LAKTOSA SUSU KAMBING SAPERA (STUDI KASUS DI P4S TELAGA RIZQY 21, METRO TIMUR)

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Penelitian ini bertujuan untuk mengetahui hubungan antara konsumsi bahan kering (KBK), protein kasar (PK), dan serat kasar (SK) dengan kualitas bahan kering tanpa lemak (BKTL) dan kadar laktosa susu kambing Sapera. Penelitian dilaksanakan di P4S Telaga Rizqy 21, Metro Timur, menggunakan 20 ekor kambing Sapera laktasi III--IV bulan dengan paritas III--IV. Data konsumsi pakan diperoleh dengan menimbang pakan yang diberikan dan sisa pakan selama 14 hari. Analisis proksimat terhadap pakan dilakukan untuk menentukan kandungan BK, PK, dan SK. Kualitas susu dianalisis menggunakan Lactoscan milk analyzer untuk memperoleh kadar BKTL dan laktosa. Hasil penelitian menunjukkan bahwa konsumsi rata-rata BK, PK, dan SK masing-masing sebesar 1.245,49 g/hari, 209,15 g/hari, dan 275,62 g/hari, sedangkan kadar rata-rata BKTL dan laktosa susu adalah 7,80% dan 3,48%. Terdapat hubungan positif cukup kuat antara konsumsi BK, PK, dan SK terhadap kadar BKTL ($r = 0,458; 0,430; 0,449$) dan laktosa ($r = 0,452; 0,411; 0,443$), dengan konsumsi bahan kering (BK) menunjukkan nilai korelasi tertinggi terhadap kedua parameter. Dalam regresi sederhana, konsumsi BK memberikan kontribusi terbesar dalam menduga kadar BKTL ($R^2 = 0,210$) dan laktosa ($R^2 = 0,204$), dengan persamaan regresi: $BKTL = -6,627 + 0,012(KBK)$ dan $LAKT = -3,416 + 0,005(KBK)$. Namun demikian, dalam regresi berganda, hanya konsumsi protein kasar (KPK) yang berpengaruh signifikan ($p < 0,05$), dengan koefisien regresi 0,024 untuk BKTL dan 0,011 untuk laktosa. Penelitian ini menunjukkan bahwa meskipun KBK memiliki hubungan paling kuat, KPK merupakan variabel yang paling signifikan dalam menjelaskan variasi kualitas susu ketika dianalisis secara bersama.

Kata kunci: bahan kering, BKTL, laktosa, protein kasar, serat kasar, susu kambing Sapera.

ABSTRACT

RELATIONSHIP BETWEEN DRY MATTER CONSUMPTION, CRUDE PROTEIN, AND CRUDE FIBER IN FEED WITH THE DRY MATTER WITHOUT FAT AND LACTOSE OF SAPERA GOAT MILK (CASE STUDY AT P4S TELAGA RIZQY 21, METRO TIMUR)

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This study aimed to examine the relationship between dry matter (DM), crude protein (CP), and crude fiber (CF) intake with the levels of Solid Non Fat (SNF) and lactose in Sapera goat milk. The research was conducted at P4S Telaga Rizqy 21, Metro Timur, using 20 Sapera goats in the 3th--4th month of lactation and 3th--4th parity. Feed intake data were obtained by weighing feed offered and refusals over a 14-day period. Proximate analysis was performed to determine the nutrient content of the feed, while milk quality was assessed using a Lactoscan milk analyzer to determine SNF and lactose levels. The results showed average intakes of DM, CP, and CF were 1.245,49 g/day, 209,15 g/day, and 275.62 g/day, respectively, with average SNF and lactose levels of 7.80% and 3.48%. A moderately strong positive correlation was found between the intake of DM, CP, and CF with both SNF ($r = 0.458$; 0.430 ; 0.449) and lactose ($r = 0.452$; 0.411 ; 0.443), with DM showing the strongest correlation for both milk quality parameters. In simple regression, dry matter (DM) intake contributed the most in predicting the levels of non-fat dry matter (SNF) ($R^2 = 0.210$) and lactose ($R^2 = 0.204$), with the regression equations: $SNF = -6.627 + 0.012(DM)$ and $LACT = -3.416 + 0.005(DM)$. However, in multiple linear regression analysis, only crude protein intake (CP) had a statistically significant effect ($p < 0.05$) on both SNF (regression coefficient = 0.024) and lactose (regression coefficient = 0.011). These findings suggest that while DM intake shows the strongest individual correlation, CP intake is the most significant predictor of milk quality when all variables are considered simultaneously.

Keywords: Sapera goat, dry matter, crude protein, crude fiber, solid non fat, lactose.