PENGARUH PERBEDAAN KOMPOSISI SUMBER KARBOHIDRAT DAN PROTEIN KASAR DALAM RANSOM LENGKAP TERHADAP DEGRADASI *IN SACCO*

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Intisari

Penelitian ini bertujuan untuk mengetahui pengaruh perbedaan komposisi sumber karbohidrat dan protein kasar dalam ransum lengkap sapi potong terhadap keseimbangan degradasi bahan organik dan protein kasar. Ransum disusun dengan bahan pakan basal jerami padi dengan komposisi bahan pakan konsentrat yang berbeda. Degradasi bahan kering (BK), bahan organik (BO) dan protein kasar (PK) ditentukan dengan metode *in sacco* menggunakan 2 ekor sapi PO betina dalam keadaan kering yang berfistula. Dua ransum lengkap disusun dengan kandungan protein 12% dan energi berupa TDN 64% serta DTBO 58-61% dan DTPK 62%. Jerami padi sebagai pakan basal (35%) dicampur dengan pakan konsentrat (65%) yang terdiri dari dedak halus, onggok, cassava, bungkil biji kapok, bungkil kedelai, molasses, bungkil kelapa, urea, dan pollard yang disusun dengan komposisi berbeda. Sampel ransum secara *in sacco* diinkubasikan dalam *rumen* dengan kinetika 2, 4, 8, 16, 24, 48, dan 72 jam. Data kehilangan BK,BO dan PK digunakan untuk menghitung nilai a,b,c dan DT, kemudian antara kedua ransum tersebut dibandingkan dengan menggunakan *Test-t*. Hasil analisis statistik menunjukkan bahwa dua ransum lengkap (RI vs RII) berbeda tidak nyata (P>0,05) terhadap DTBK (61,08 vs 61,18) dan DTBO (63,09 vs 62,96) tetapi berbeda nyata (P<0,05) terhadap DTPK (68,56 vs 70,02). Dari hasil penelitian dapat disimpulkan bahwa perbedaan komposisi ransum lengkap berpengaruh terhadap keseimbangan degradasi energi dan protein kasar di dalam rumen yang ditunjukkan oleh selisih rata-rata DTBO tanpa N dan DTPK antara ransum I dan II (6,20 vs 8,02).

Kata Kunci : Ransum Lengkap, *In sacco*, Komposisi, Keseimbangan Degradasi.

THE EFFECT OF DIFFERENT COMPOSITION OF CARBOHYDRATE AND PROTEIN SOURCES IN COMPLETE FEED ON *IN SACCO* DEGRADATION

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Abstract

This experiment was conducted to determine the effect of different composition of carbohydrate and protein sources in complete feed on organic matter and crude protein degradation balanced. Complete feed contained rice straw as basal feed and supplemented with different composition of concentrate. Dry matter (DM) and organic matter (OM) were measured by *in sacco* degradation using two females fistulated Ongole Cattle Crossbreed. The both complete feeds contained 12% of crude protein and 64% of total digestible nutrients (TDN) and had 58-61% of degradation teory (DT) of OM and 62 % of crude protein. The composition of concentrate was rice bran, cassava pomace, cassava, *Ceiba pentandra* seed meal, soybean meal, molasses, copra meal, urea and pollard. Complete feed samples were incubated in the rumen fistulated cattle for 2, 4, 8, 16, 24, 48, and 72 hours. The organic and protein disappeared in the rumen were used to calculated a, b, c and DT. The data was compared between two treatments using test-T. The result showed that both of complete feeds (R1 vs R2) were not significantly different compared to DT dry matter (61,08 vs 61,18) and (63,09 vs 62,96) on organic matter but significantly different (P<0,05) on DT crude protein (68,56 vs 70,02). From this research could be concluded that the different composition of carbohydrate and crude protein degradation affected energy and crude protein balanced. The difference of DT of organic matter and crude protein in RI (6,20) was lower than in R II (8,02).

Key Words : Complete Feed, *In sacco*, Composition, Degradation Balancing.