

**PENGARUH PEMBERIAN PAKAN BASAL TERHADAP AKTIVITAS
CABBOXY METHYL CELLULASE CAIRAN RUMEN DAN FESES SAPI**

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INTISARI

Dua ekor sapi betina yang difistula pada bagian rumennya digunakan dalam penelitian ini untuk mengetahui pengaruh pemberian pakan basal terhadap aktivitas enzim CMC-ase pada cairan rumen dan feses ternak sapi. Pakan yang digunakan pada penelitian ini adalah pakan basal (jerami padi, rumput Gajah, dan jerami jagung) dan konsentrat. Data yang diamati meliputi kinetik pH dan kinetik NH_3 cairan rumen, aktivitas enzim CMC-ase cairan rumen dan larutan feses pada 3 konsentrasi yang berbeda yakni 150 g (F1), 160 g (F2), 170 g (F3) per liter aquadest. Data kinetik pH dan NH_3 dianalisis menggunakan Rancangan acak lengkap (RAL) dengan pola searah dan data aktivitas enzim CMC-ase dianalisis dengan *Randomized completely block design* (RCBD). Rata-rata dengan perbedaan yang signifikan diuji dengan *Duncan's multiple range test* (DMRT). Hasil penelitian menunjukkan bahwa macam pakan berpengaruh nyata ($P < 0,05$) terhadap nilai pH dan tidak berpengaruh nyata ($P > 0,05$) terhadap nilai NH_3 . Aktivitas enzim CMC-ase tertinggi terdapat pada cairan rumen dan feses sapi yang diberi pakan basal jerami padi (2,8053 U/g), kemudian jerami jagung (2,6392 U/g) dan diikuti rumput Gajah (2,3051 U/g). Dari hasil penelitian ini dapat diambil kesimpulan bahwa macam pakan yang diberikan berpengaruh terhadap aktivitas enzim CMC-ase cairan rumen dan feses sapi.

(Kata Kunci: Cairan Rumen, Larutan Feses, Aktivitas Enzim CMC-ase, Pakan Basal)

**EFFECT OF BASAL DIET FEEDING ON CMKBOXY METHYL CELLULOSE
ACTIVITIES OF THE RUMEN LIQUOR AND COW FAECES**

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ABSTRACT

Two fistulated cows were used in this research to investigate the effect of basal diet feeding on CMC-ase enzyme activities. Diet that used in this research were basal diets (rice straw, Napiergrass, and corn straw) and concentrate. The data collected were the kinetic pH and kinetic NH_3 of rumen liquor, CMC-ase enzyme activities of rumen liquor and faecal liquor with 3 different concentration, 150 g (F1), 160 g (F2) and 170 g (F3) per liter aquadest. The data of kinetic pH and NH_3 were analyzed using **Completely randomized design** (CRD) with one way classification and the data of CMC-ase enzyme activities were analyzed using **Randomized completely block design** (RCBD). Means with significant differences were analyzed by **Duncan's multiple range test** (DMRT). The result of research showed that kinetic pH were influenced by diets ($P < 0,05$) while kinetic NH_3 weren't influenced by diets ($P > 0,05$). CMC-ase enzyme activities on rumen liquor and cow faeces with rice straw feeding (2,8053 U/g) was significantly higher than corn straw feeding (2,6392 U/g) and Napiergrass feeding (2,3057 U/g). From the result of this research could be conduced that the diets were influencing on CMC-ase enzyme activities of the rumen liquor and cow faeces.

(Key Words: Rumen Liquor, Faecal Liquor, CMC-ase Enzyme Activities, Basal diet)