PENGARUH PEMBERIAN DAUN KETEPENG CINA *(Cassia alata)* TERHADAP PRODUK FERMENTASI RUMEN PADA SAPI PERANAKAN ONGOLE

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INTISARI

Dua ekor sapi PO berumur 5 tahun, berat badan rata-rata 273 kg digunakan untuk mengetahui penganjh pemberian daun ketepeng cina *(Cassia alata)* sebagai sumber antrakinon terhadap produk fermentasi rumen pada sapi PO meliputi NH_3, VFA dan protein mikrobia. Pakan tunggal berupa rumput raja diberikan *ad libitum* dan dedak halus diberikan 20% dari ransum berdasarkan kebutuhan BK 3% dan berat badan untuk pakan campuran. Dua macam perlakuan yang diberikan yaitu tanpa pemberian dan dengan pemberian daun ketepeng cina. Air minum diberikan secara bebas tak terbatas. Setiap periode terdiri dari 10 hari adaptasi dan 7 hari koieksi. Sampel pakan, sisa pakan dan feses dianalisis BK dan BO. Cairan rumen dianalisis kadar NH_3, VFA dan protein mikrobia. BK, BO, NH_3, VFA dan protein mikrobia sebagai variable dalam penelitian ini diuji dengan analisis *Simple (Complete Block) Crossover*, apabila terdapat perbedaan nyata dilanjutkan dengan uji *Bounferroni non orthogonal t-statistics.* Hasil penelitian menunjukkan bahwa pemberian daun ketepeng cina berpengaruh tidak nyata terhadap konsumsi dan kecernaan BK dan BO pakan. Pemberian daun ketepeng cina meningkatkan amonia yaitu 17,944 mg/100 ml dan 20,204 mg/100 ml ($P<0,05$). Pemberian dedak halus pada pakan tunggal menurunkan amonia ($P<0,05$) yaitu 22,771 mg/100 ml dan 15,377 mg/100 ml. Pemberian daun ketepeng cina tidak berpengaruh nyata terhadap kadar VFA, namun menurunkan kadar protein mikrobia yaitu 1,599 mg/mt dan 1,178 mg/ml ($P<0,05$). Pemberian dedak halus pada pakan tunggal rumput raja menurunkan kadar protein mikrobia yaitu 1,525 mg/ml dan 1,252 mg/ml ($P<0,05$). Dari hasil penelitian dapat diambil kesimpulan bahwa pemberian daun ketepeng cina setara 5 ppm antrakinon secara *in vivo* tidak meningkatkan konsumsi dan kecernaan BK, BO dan kadar VFA rumen. Pemberian daun ketepeng cina meningkatkan kadar amonia, namun akan menurunkan kadar protein mikrobia dalam rumen sapi PO.

Kata kunci : Daun ketepeng cina, kecernaan, NH_3, VFA, protein mikrobia, *in vivo*

THE EFFECT OF *Cassia alata* ADDITION ON THE RUMEN FERMENTATION PRODUCTS ON THE ONGOLE CROSSBREED CATTLES

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ABSTRACT

The experiment was conducted to determine the effect of *Cassia alata* addition source of anthraquinone on the rumen fermentation products on Ongole Crossbreed (OC) cattles, such as NH_3, VFAs and protein microbial. Two OC cattles of about 5 years old and weighted average 273 kg were used ini this experiment. Cattles fed King grass as single feed *ad libitum* basis. The rice bran on mixture feed only 20% adapted from 3% DMI. The experiment consist of two treatments were fed with *Cassia alata* addition and another was none. Each periods consist of 10 days adaptation period and 7 days collection period. The feed samples, refuses and feaces were taken and analyzed for DM and OM. The rumen fluids were taken and analyzed for NH_3, VFAs and protein microbial. The DM, OM, NH_3, VFAS and protein microbial as variabels. The data obtained use analyzed by analyze of variance using *Simple (Complete Block) Crossover design.* The differences between means values were analyzed with *Bounferroni non orthogonal t statistics.* The result showed that the addition of *Cassia alata* have no tend to DMI, OMI and digestibility. The *Cassia alata* addition increased ammonia as 17,944 mg/100 ml and 20,204 mg/100 ml ($P<0,05$). The rice bran addition decreased ammonia on single feed ($P<0,05$) as 22,771 mg/100 ml and 15,377 mg/100 ml. The *Cassia alata* addition have no tend to the VFA's productions. The *Cassia alata* addition decreased the protein microbial as 1,599 mg/ml and 1,178 mg/ml ($P<0,05$). The single feed added by rice bran have decreased on protein microbial ($P<0,05$) as 1,525 mg/ml and 1,252 mg/ml. It could be concluded that *Cassia alata* have no tend to DMI, OMI, digestibility and VFAs. The *Cassia alata* addition increased ammonia, but it will decreased on protein microbial. The rice bran addition on single feed decreased ammonia and protein microbial rumen.

Keywords : *Cassia alata*, digestibility, NH_3, VFAs, protein microbial, *in vivo*