

## **EFEK PEMBATASAN RANSUM DENGAN KANDUNGAN PROTEIN TINGGI TERHADAP KECERNAAN *IN VIVO* BAHAN KERING DAN BAHAN ORGANIK SAPI PERANAKAN ONGOLE JANTAN**

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### **INTISARI**

Penelitian ini bertujuan untuk mengetahui efek pembatasan ransum dengan kandungan protein tinggi terhadap konsumsi dan nilai pencernaan bahan kering (BK) maupun bahan organik (BO) sapi peranakan ongole (PO) jantan. Dalam penelitian ini juga dilakukan analisis usaha ternak secara ringkas guna mengetahui nilai ekonomis dari pakan yang diberikan. Penelitian ini menggunakan 15 ekor sapi PO jantan dengan umur  $\pm 1$  tahun dan berat badan  $\pm 200$  kg. Pakan yang diberikan terdiri atas jerami padi sebanyak 5 g BK/kg BB/ekor/hari dan konsentrat diberikan sebanyak 10 g BK/kg BB/ekor/hari. Perlakuan pakan yang diberikan terdiri atas ransum protein standar (11,63% BK) yang diberikan secara *ad libitum* (T1) dan ransum tinggi protein (15,21% BK) yang diberikan secara *restricted* (T2) dan. Pakan diberikan tiga kali sehari: pukul 08.00, 12.00, dan 16.00 WIB. Penelitian didesain menggunakan rancangan acak lengkap (RAL) pola searah. Data yang diperoleh dianalisis statistik dengan *t-test*. Analisis ekonomi dilakukan secara parsial dan dibahas secara deskriptif. Konsumsi BK dan BO pada sapi dengan pembatasan ransum (T2) menunjukkan hasil yang lebih rendah daripada sapi dengan perlakuan T1 (3,27 vs. 4,97kg/ekor/hari; 2,86 vs. 4,48kg/ekor/hari;  $P < 0,01$ ). Nilai KcBK maupun KcBO pada kedua perlakuan tidak menunjukkan perbedaan yang nyata, yaitu 64,91 dan 69,20% serta 64,02 dan 67,82%, berturut-turut. *Feed cost per gain* pada T1 dan T2 sebesar Rp32.422,00 vs. Rp46.177,00. Sedangkan analisis ekonomi secara parsial pada pembatasan pakan menghasilkan kerugian Rp151.387,00 serta pada T1 memperoleh keuntungan Rp263.322,00.

(Kata kunci: Kecernaan *in vivo*, Jerami padi, Level protein, *Ad libitum*, *Restricted*, Sapi peranakan ongole).

## EFFECT OF RESTRICTION FEEDING WITH HIGH PROTEIN LEVEL OF ONGOLE BULLS' RATION IN DRY MATTER AND ORGANIC MATTER DIGESTIBILITY

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### ABSTRACT

This research aimed to determine the effect of restriction feeding with high protein level of ongole bulls' ration on feed intake and digestibility of dry matter as well as organic matter. In this study, a brief economic analysis of livestock business was also carried out in order to determine the economic value of the offered feed. Fifteen ongole bulls, aged  $\pm 1$  year old with initial liveweight  $\pm 200$  kg, were allocated into two treatments. Ration given to the bulls consisted of 5 g DM rice straw/kg LW/head/day and 10 g DM concentrates/kg LW/h/day. The treatments were: T1=standard protein level of concentrate (11.63% DM) with *ad libitum* feeding method and T2= high protein concentrate (15.21% DM) with restricted feeding method. Bulls fed three times a day at 08.00 am, 12.00 pm, and 04.00 pm. This study was carried out according to completely randomized design (CRD). Analysis of t-test was used to analyze the data of this research. The economic analysis used in this study was partial budget analysis method. The result showed that dry matter intake (DMI) and organic matter intake (OMI) of restriction feeding on T2 were lower than those of the T1 (3.27 and 2.86 vs. 4.97 and 4.48kg/head/day,  $P < 0.01$ ). There was no significant effect on dry matter digestibility (DMD) and organic matter digestibility (OMD) between T1 and T2. The DMD and OMD values of both treatments were 64.91 and 69.20% vs. 64.02 and 67.82%, respectively. *Feed cost per gain* resulted on T1 and T2 were IDR32.422 vs. IDR46.177. Economic analysis showed that ration with standard protein level (11.63%) offered *ad libitum* (T1) produced more profit than T2 with restriction feeding which produced loss (IDR263.322 vs. -IDR151.387).

(Keywords: *In vivo* digestibility, Rice straw, Protein level, *Ad libitum*, Restricted, Ongole bull).