

PENGARUH TINGKAT *RUMEN UNDEGRADABLE PROTEIN* BERBEDA
PADA KONSENTRAT DENGAN PAKAN BASAL JERAMI PADI
TERHADAP KINERJA PERTUMBUHAN DAN KUALITAS
DAGING SAPI SUMBA ONGOLE

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INTISARI

Penelitian ini bertujuan untuk mengetahui kinerja pertumbuhan dan kualitas daging sapi Sumba Ongole (SO) yang diberi pakan jerami dengan ditambahkan konsentrat dengan tingkat *Rumen Undegradable Protein* (RUP) berbeda. Sebanyak 36 ekor sapi SO jantan dibagi menjadi 2 kelompok secara acak, yaitu kelompok yang diberi pakan RUP rendah dan tinggi. Pakan berupa jerami padi dan konsentrat dengan perbandingan 30:70 dalam pakan kering. Sapi yang diberi RUP rendah mendapatkan konsentrat dengan kandungan Bahan Kering (BK) 91,22%; Protein Kasar (PK) 19,38%; RUP 33,05%; dan *Total Digestible Nutrient* (TDN) 51,71%; sedangkan sapi yang diberi RUP tinggi mendapatkan konsentrat dengan BK 91,13%; PK 19,40%; RUP 41,13%; dan TDN 51,57%. Air minum diberikan secara bebas tak terbatas. Parameter kinerja pertumbuhan dan kualitas daging dianalisis menggunakan *Independent Sample T-test*, pertambahan bobot badan harian dianalisis dengan metode *Analysis Covariate (ANCOVA)* dengan bobot badan awal sebagai kovariat, kualitas organoleptik dianalisis dengan uji non parametrik Kruskal-Wallis yang dilanjutkan dengan *T-test*. Konsumsi nutrisi (BK, PK, dan TDN); kinerja pertumbuhan (Pertambahan Bobot Badan Harian (PBBH), konversi pakan, *feed cost per gain*), produksi karkas (persentase karkas); kualitas kimia daging (kadar air dan kadar protein); kualitas fisik daging (pH, Daya Ikat Air (DIA), warna daging, warna lemak, daya putus Warner-Blatzler, susut masak); dan kualitas organoleptik (rasa, aroma, *juiciness*, keempukan, dan *overall*) berbeda tidak nyata antara sapi yang diberi pakan RUP rendah dan tinggi. Konsumsi *Rumen Degradable Protein* (RDP), konsumsi RUP, kadar lemak, dan *marbling* berbeda nyata ($P < 0,05$) antara sapi yang diberi RUP rendah dan tinggi. Disimpulkan bahwa peningkatan RUP mampu meningkatkan kadar lemak dan *marbling*, tetapi daging masih tergolong *lean meat*, dan tidak mempengaruhi keempukan.

(Kata kunci: Jerami Padi, Kinerja Pertumbuhan, Kualitas Daging, *Rumen Undegradable Protein*, Sumba Ongole)

THE EFFECT OF DIFFERENT LEVEL RUMEN UNDEGRADABLE PROTEIN
OF CONCENTRATE WITH RICE STRAW AS BASAL DIET
ON GROWTH PERFORMANCE AND MEAT QUALITY
OF SUMBA ONGOLE BEEF CATTLE

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ABSTRACT

This research was conducted to determine growth performance and meat quality of SO beef cattle fed rice straw added with concentrate with different levels of RUP. Thirty six SO bull were divided into two groups at random, group that fed low and high RUP. Feed in the form of rice straw and concentrate with a ratio of 30:70 in Dry Matter (DM). Cattle fed low RUP get concentrate containing DM 91.22%; Crude Protein (CP) 19.38%; RUP 33.05%; and TDN 51.71%; whereas cattle fed high RUP get a concentrate with DM 91.13%; CP 19.40%; RUP 41.13%; and TDN 51.57%. Water was given unlimited. The performance parameters of growth and meat quality were analyzed using independent sample T-test, average daily gain was analyzed by ANCOVA with initial weight as covariates, the organoleptic quality were analyzed by non-parametric Kruskal-Wallis followed by T-test. Nutrient intake (DM, CP, and TDN); growth performance (Average Daily Gain (ADG), feed conversion, and feed cost per gain); carcass production (carcass percentage); chemical quality of meat (water and protein content); physical quality of meat (pH, Water Holding Capacity (WHC), meat color, fat color, Warner-Blatzler Shear Force (WBSF), and cooking loss); and organoleptic qualities (odor, flavor, juiciness, tenderness, and *overall*) showed not significant between cattle fed low and high RUP. Intake RDP, intake RUP, fat content and marbling had significant effect ($P < 0.05$) between cattle fed low and high RUP. The conclusion were the increased of RUP levels could increased of fat and marbling, but the meat still relatively lean, and not affect tenderness.

(Keyword: Growth Performance, Meat Quality, Rice Straw, Rumen Undegradable Protein, Sumba Ongole)