

KECERNAAN *IN VITRO* JERAMI PADI DENGAN SUPLEMENTASI TEPUNG GAPLEK DAN *PROTEIN MEAL* PADA IMBANGAN YANG BERBEDA

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INTISARI

Penelitian ini bertujuan untuk mengetahui suplementasi jerami padi dengan gaplek dan *protein meal* pada imbangan yang berbeda terhadap kecernaan *in vitro* bahan kering (BK), bahan organik (BO), dan protein kasar (PK). Perlakuan diberikan dengan mengikuti rancangan acak lengkap pola searah, lima macam imbangan gaplek dan *protein meal* ditambahkan pada jerami padi. *Protein meal* terdiri dari campuran 75% bungkil kopra dan 25% bungkil inti sawit. Urea diberikan sebanyak 1% BK gaplek. Perlakuan pakan yang diberikan berupa: P0 (20% jerami padi dan 80% gaplek), P1 (20% jerami padi, 10% protein meal, dan 70% gaplek), P2 (20% jerami padi, 20% protein meal, dan 60% gaplek), P3 (20% jerami padi, 30% protein meal, dan 50% gaplek), dan P4 (20% jerami padi, 40% protein meal, dan 40% gaplek). Semua perlakuan pakan diinkubasikan selama 48 jam dalam tabung *in vitro* sesuai dengan tahap pertama analisis kecernaan *in vitro* 2-tahap. Variabel yang diamati adalah kecernaan bahan kering (KcBK), kecernaan bahan organik (KcBO), dan kecernaan protein kasar (KcPK). Data yang diperoleh dianalisis dengan menggunakan analisis variansi dan apabila terdapat perbedaan antara rerata kelompok perlakuan maka dilanjutkan dengan *Duncan's multiple range test*. Hasil penelitian menunjukkan bahwa perlakuan tanpa penambahan *protein meal* memiliki rata-rata nilai KCBK dan KCBO yang nyata lebih tinggi ($P < 0,05$) dibanding dengan perlakuan lainnya. Penambahan jumlah suplementasi *protein meal* yang meningkat menyebabkan KCBK dan KCBO menurun namun meningkatkan KcPK ($P < 0,05$). Suplementasi 20 dan 40% *protein meal* pada ransum memiliki nilai KcPK yang tertinggi ($P < 0,05$) dibandingkan dengan perlakuan lain. Dapat disimpulkan bahwa imbangan antara jerami padi, gaplek-urea, dan *protein meal* yang paling optimal adalah pada imbangan 20:60:20.

(Kata kunci: Imbangan energi dan protein, Suplementasi, Jerami padi, Gaplek, *Protein meal*, Kecernaan *in vitro*)

IN VITRO DIGESTIBILITY OF RICE STRAW SUPPLEMENTED WITH CASSAVA CHIPS AND PROTEIN MEAL IN DIFFERENT RATIO

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ABSTRACT

The aim of this study was to determine the effect of cassava chips and protein meal supplementation with different ratio on *in vitro* digestibilities of dry matter (DM), organic matter (OM), and crude protein (CP) in rice straw basis ration. The treatment was given by following a completely randomized design, five rations with different ratio of cassava and protein meal were added on rice straw. Protein meal consists of a mixture of 75% copra meal and 25% palm kernel cake. Urea is given as much as 1% of DM cassava chips. The treatments were: P0 (20% rice straw and 80% cassava chips), P1 (20% rice straw, 10% protein meal, and 70% cassava chips), P2 (20% rice straw, 20% protein meal, and 60% cassava chips), P3 (20% rice straw, 30% protein meal, and 50% cassava chips), and P4 (20% rice straw, 40% protein meal, and 40% cassava chips). All feed treatments were incubated for 48 hours in an *in vitro* tube according to the first stage of a 2-stage *in vitro* digestibility analysis. Observed variables were the digestibilities of DM (DMD), OM (OMD), and CP (CPD). Data were analyzed using analysis of variance and continued by Duncan's multiple range test for any differences among means. The results showed that treatment without protein meal supplementation had greater DMD and OMD ($P < 0.05$) compared to other treatments. The increasing amount of protein meal supplementation resulted in lower DMD and OMD but greater CPD ($P < 0.05$). The greatest CPD was reached by 20 and 40% protein meal supplementation on the ration ($P < 0.05$). It can be concluded that the most optimum balance between rice straw, cassava chips-urea, and protein meal is 20:60:20.

(Keywords: Energy and protein balance, Supplementation, Rice straw, Cassava chip, Protein meal, *In vitro* digestibility)