KESEIMBANGAN NITROGEN PADA KAMBING KACANG BETINA MENDAPAT TMR (*TOTAL MIXED RATION*) BERBASIS KANGKUNG KERING

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INTISARI

Penelitian ini bertujuan untuk mengetahui nilai keseimbangan nitrogen pada kambing Kacang betina yang diberi pakan TMR berbasis kangkung kering di Dusun Wonolagi, Desa Ngleri, Kapanewon Playen, Gunungkidul, D. I. Yogyakarta. Ternak yang digunakan adalah 6 ekor kambing Kacang betina dengan estimasi umur 3 sampai 4 tahun dan berat badan rata-rata ±22,48 kg yang ditempatkan di kandang panggung individu. Ternak kemudian dibagi ke dalam 2 kelompok secara acak. Pakan yang diberikan terdiri atas hijauan dan TMR berbasis kangkung kering. Perlakuan yang diberikan yaitu K1 dan P1. Perlakuan K1 hanya diberikan hijauan secara *ad libitum.* Perlakuan P1 hanya diberikan TMR secara *ad libitum.* Tahapan dalam penelitian ini meliputi tahap persiapan, tahap adaptasi selama 2 minggu, tahap koleksi dan preparasi sampel, dan analisis proksimat. Parameter yang diamati meliputi konsumsi nutrien, konsumsi nitrogen, ekskresi nitrogen feses, nitrogen tercerna, ekskresi nitrogen urin, dan keseimbangan nitrogen. Data hasil penelitian dianalisis statistik menggunakan *Independent T-test* dengan bantuan *software* SPSS versi 27.0. Berdasarkan hasil penelitian diperoleh bahwa konsumsi nutrien bahan kering (BK), bahan organik (BO), protein kasar (PK), lemak kasar (LK), serat kasar (SK), Bahan Ekstrak Tanpa Nitrogen (BETN), Nitrogen dan Total Digestible Nutrien (TDN) berbeda nyata dan signifikan ($P<0,05$). Ekskresi nitrogen feses, ekskresi nitrogen urin, nitrogen tercerna serta keseimbangan nitrogen berbeda nyata dan signifikan ($P<0,05$).

(Kata kunci: kangkung kering, kambing kacang, keseimbangan nitrogen, konsumsi nitrogen, *total mixed ration*)

NITROGEN BALANCE IN FEMALE KACANG GOATS GETS TMR (*TOTAL MIXED RATION*) DRIED SPINACH BASED

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ABSTRACT

This study aimed to determine the value of nitrogen balance in female kacang goats fed dry spinach based TMR feed in Wonolagi, Ngleri, Kapanewon Playen, Gunungkidul, D. I. Yogyakarta. This research used 6 female Kacang goats with an estimated age of 3 to 4 years and an average body weight of ±22.48 kg who were placed in individual stage pens. Goats were then divided into 2 groups at random. The feed provided consisted of forage and dry spinach based TMR. The treatment given is K1 and P1. K1 treatment is only given forage *ad libitum*. P1 treatment is only given by TMR *ad libitum*. The stages in this study include the preparation stage, the adaptation stage for 2 weeks, the sample collection and preparation stage, and proximate analysis. Parameters observed include nutrient consumption, nitrogen consumption, fecal nitrogen excretion, digested nitrogen, urinary nitrogen excretion, and nitrogen balance. The research data was analyzed statistically using Independent T-test with the help of SPSS software version 27.0. Based on the results of the study, it was found that the consumption of dry matter nutrients (BK), organic matter (BO), crude protein (PK), crude fat (LK), crude fiber (SK), Extract Material Without Nitrogen (BETN), Nitrogen and Total Digestible Nutrient (TDN) was significantly different ($P<0.05$). Fecal nitrogen excretion, urinary nitrogen excretion, digested nitrogen and nitrogen balance differ markedly and significantly ($P<0.05$).

Keywords: dried spinach, kacang goats, nitrogen balance, nitrogen consumption, total mixed ration