

**KESEIMBANGAN NITROGEN PADA KAMBING KACANG BETINA
DENGAN PEMBERIAN PAKAN TAMBAHAN
SUMBER PROTEIN**

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INTISARI

Penelitian ini bertujuan untuk mengetahui nilai keseimbangan nitrogen pada kambing Kacang betina dengan penambahan pakan sumber protein di Dusun Wonolagi, Desa Ngleri, Kapanewon Playen, Gunungkidul, D. I. Yogyakarta. Ternak yang digunakan adalah delapan ekor kambing kacang betina dalam masa kering dengan estimasi umur 2 sampai 3 tahun dan berat badan rata-rata $24,26 \pm 3,17$ kg yang ditempatkan di kandang panggung individu. Ternak kemudian dibagi ke dalam 2 kelompok secara acak untuk perlakuan hijauan secara *ad libitum* (K) dan perlakuan hijauan secara *ad libitum* serta pakan tambahan sumber protein (P). Pakan tambahan sumber protein terdiri dari bungkil sawit, *wheat pollard*, *corn gluten feed* (CGF), bungkil kedelai, kulit kopi, dan premix mineral. 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 nutrisi (bahan kering, bahan organik, dan protein kasar), konsumsi nitrogen, ekskresi nitrogen feses, nitrogen tercerna, ekskresi nitrogen urin, dan keseimbangan nitrogen. Data hasil penelitian dianalisis statistik menggunakan *Independent Samples T-test* dengan bantuan *software* SPSS versi 26.0. Hasil penelitian menunjukkan terdapat perbedaan nyata pada keseimbangan nitrogen ($P < 0,05$). Keseimbangan nitrogen perlakuan K yaitu $13,20 \pm 1,37$ g/ekor/hari dan $1,22 \pm 0,20$ g/kg $BB^{0,75}$ /hari serta perlakuan P yaitu $18,32 \pm 1,53$ g/ekor/hari dan $1,70 \pm 0,29$ g/kg $BB^{0,75}$ /hari. Berdasarkan hasil penelitian yang diperoleh, dapat disimpulkan bahwa pemberian pakan tambahan sumber protein pada penelitian ini mampu meningkatkan keseimbangan nitrogen pada kambing kacang betina.

Kata kunci: Keseimbangan nitrogen, Kambing kacang, Pakan tambahan sumber protein, Konsumsi nitrogen

NITROGEN BALANCE OF KACANG GOAT FED WITH ADDITIONAL PROTEIN SOURCE

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ABSTRACT

The aim of this study was to determine the value of nitrogen balance in kacang does fed with the addition of protein source feed in Dusun Wonolagi, Desa Ngleri, Kapanewon Playen, Gunungkidul, D. I. Yogyakarta. Eight Kacang does in dry period age of 2 to 3 years and an average body weight of $24,26 \pm 3,17$ kg was placed in individual cages. The does was randomly divided into 2 groups for only forages *ad libitum* treatment (K) and forages *ad libitum* and additional protein source feed treatment (P). The additional protein source feed consisted of palm meal, wheat pollard, corn gluten feed (CGF), soybean meal, coffee pulp, and mineral premix. This study included preparation stage, adaptation stage for 2 weeks, collection and sample preparation stage, and proximate analysis. The parameters observed were nutrients intake (dry matter, organic matter, and crude protein), nitrogen intake, fecal nitrogen excretion, digested nitrogen, urine nitrogen excretion, dan nitrogen balance. The data were statistically analyzed using the *Independent Samples T-test* with SPSS version 26.0 software. The results showed a significant difference in nitrogen balance ($P < 0,05$). The nitrogen balance of treatment K was $13,20 \pm 1,37$ g/day dan $1,22 \pm 0,20$ g/kg $W^{0,75}$ /day and treatment P was $18,32 \pm 1,53$ g/day dan $1,70 \pm 0,29$ g/kg $W^{0,75}$ /day. According to the results, it is concluded that the addition of protein source feed was able to increase the value of nitrogen balance in kacang does.

Keywords: Nitrogen balance, Kacang goats, Additional protein source, Nitrogen intake