

## **KESEIMBANGAN NITROGEN PADA DOMBA MERINO JANTAN DAN BETINA YANG DIBERI PAKAN TUNGGAL JERAMI KACANG TANAH**

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### **INTISARI**

Penelitian ini bertujuan untuk mengetahui nilai keseimbangan nitrogen pada domba Merino jantan dan betina yang diberi pakan tunggal jerami kacang tanah. Ternak yang digunakan adalah domba Merino jantan 4 ekor dan betina 5 ekor dengan umur 10 sampai 12 bulan dan berat badan awal 30 sampai 40 kg yang ditempatkan pada kandang metabolisme. Jerami kacang tanah diberikan sebagai pakan tunggal secara *ad libitum*. Penelitian ini meliputi periode adaptasi selama 14 hari dan koleksi selama 7 hari. Selama periode koleksi, setiap harinya dilakukan koleksi sampel pakan, sisa pakan, sampel feses dan urin juga dikoleksi setiap hari untuk dianalisis kadar nutrisi. Sampel feses dianalisis bahan kering (BK) dan kadar nitrogen, sedangkan urin dianalisis kadar nitrogen. Data yang diperoleh dianalisis statistik menggunakan One way ANOVA. Hasil penelitian menunjukkan bahwa tidak terdapat perbedaan terhadap konsumsi nitrogen, ekskresi nitrogen urin dan keseimbangan nitrogen pada domba Merino jantan dan betina. Sementara nilai ekskresi nitrogen feses dan nitrogen tercerna menunjukkan hasil pada jantan lebih besar daripada betina ( $P < 0,01$ ). Jumlah konsumsi nitrogen, ekskresi nitrogen feses, nitrogen tercerna, ekskresi nitrogen urin dan keseimbangan nitrogen pada domba Merino jantan berturut-turut sebesar 25,37 g/ekor/hari, 10,37 g/ekor/hari, 11,47 g/ekor/hari, 14,99 g/ekor/hari, 4,9 g/ekor/hari dan pada domba Merino betina berturut-turut sebesar 16,76 g/ekor/hari, 5,27 g/ekor/hari, 8,5 g/ekor/hari, 11,49 g/ekor/hari, 4,04 g/ekor/hari. Berdasarkan hasil penelitian ini dapat diambil kesimpulan bahwa pemberian jerami kacang tanah sebagai pakan tunggal dapat memenuhi kebutuhan protein domba Merino jantan dan betina, keseimbangan nitrogen bernilai positif.

Kata kunci : Domba Merino, Jerami kacang tanah, Keseimbangan nitrogen

## **NITROGEN BALANCE OF MALE AND FEMALE MERINO SHEEP FED ON PEANUT STRAW**

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### **ABSTRACT**

The aim of this study was to determine the nitrogen balance of male and female Merino sheep fed on peanut straw as sole diet. The animals used were Merino sheep, 4 males and 5 females, aged 10 to 12 months, and the initial body weight was around 30 to 40 kg which was placed on the metabolic barn. Peanut straw was given as a single feed. This study included period of adaptation for 14 days and collection for 7 days. During the collection period, feed samples, feed residues, faecal and urine were collected daily for nutrient analysis. Feces samples were analyzed for dry matter (DM) and nitrogen content, while urine was analyzed for nitrogen content. The data obtained were analyzed statistically using the One way ANOVA. The result showed that the differences of nitrogen intake, nitrogen excreted through in urine and nitrogen balance were not significant. Nitrogen excreted in feces and nitrogen digestible was higher in male than female ( $P < 0,01$ ). The amount of nitrogen intake, nitrogen excreted in feces, nitrogen digestible, nitrogen through in urine and nitrogen balance of Merino sheep's male were 25.37 g/day, 10.37 g/day, 11.47 g/day, 14.99 g/day, 4.9 g/day and for Merino sheep's female were 16.76 g/day, 5.27 g/day, 8.5 g/day, 11.49 g/day, 4.04 g/day. It is concluded that peanut straw as sole diet could fulfill nitrogen need of Merino sheep male and female, nitrogen balance values was positive, and there were not difference in nitrogen balance between both sheep.

Keywords: Merino sheep, Peanut straw, Nitrogen balance