NERACA NITROGEN PADA KAMBING BLIGON DAN KEJOBONG JANTAN YANG DIBERI PAKAN RUMPUT RAJA DAN JERAMI KACANG TANAH

Rahadyan Adi Nugroho
06/194500/PT/05083

INTISARI

Penelitian ini dilakukan untuk mengetahui nilai neraca nitrogen (N) pada kambing Bligon dan Kejobong jantan yang diberi pakan rumput Raja dan jerami kacang tanah. Ternak yang digunakan adalah lima ekor kambing Bligon jantan dan lima ekor kambing Kejobong jantan, berumur antara 6-8 bulan, dengan berat badan awal 18-20 kg ditempatkan pada kandang metabolisme. Rumput Raja pada umur potong 49 hari dan jerami kacang tanah serta air minum diberikan secara *ad libitum*. Penelitian meliputi periode adaptasi selama 14 hari dan periode koleksi selama 7 hari. Konsumsi pakan dicatat setiap hari. Pada periode koleksi sampel pakan dan sampel sisa pakan dikumpulkan untuk dianalisis kadar bahan kering (BK) dan kadar N. Jumlah feses dan urin dicatat dan diambil sampel setiap hari. Sampel feses dianalisis kadar BK dan kadar N, sedangkan urin dianalisis kadar N. Neraca N dihitung berdasarkan jumlah konsumsi N dan jumlah N yang diekskresikan melalui feses dan urin. Data yang diperoleh dianalisis statistik menggunakan uji *Independent sampel T-test*. Hasil penelitian menunjukkan bahwa konsumsi BK, konsumsi N, ekskresi N melalui feses, N tercerna dan neraca N pada kambing Bligon dan kambing Kejobong menunjukkan perbedaan tidak nyata, meskipun N tercerna pada kambing Bligon cenderung lebih rendah. Hasil ekskresi N melalui urin menunjukkan perbedaan yang nyata ($P<0,05$). Besarnya konsumsi BK, konsumsi N, ekskresi N melalui feses, N tercerna, ekskresi N melalui urin dan neraca N pada kambing Bligon berturut-turut adalah 72,40; 1,18; 0,39; 0,79; 0,26; dan 0,53 g/kg BBM/hari, sedangkan pada kambing Kejobong adalah 78,37; 1,31; 0,40; 0,91; 0,37; dan 0,54 g/kg BBM/hari. Berdasarkan hasil penelitian ini dapat diambil kesimpulan bahwa tidak terdapat perbedaan neraca N antara kambing Bligon dan kambing Kejobong, serta nilai neraca N yang diperoleh adalah positif, oleh karena itu rumput Raja dan jerami kacang tanah mampu memenuhi kebutuhan N bagi kambing Bligon dan Kejobong jantan.

Kata kunci : Kambing Bligon, Kambing Kejobong, Rumput Raja, Jerami kacang tanah, Neraca nitrogen.

NITROGEN BALANCE OF MALE BLIGON AND KEJOBONG GOAT FED WITH KING GRASS AND PEANUTS CROP STRAW

Rahadyan Adi Nugroho
06/194500/PT/05083

ABSTRACT

The experiment was conducted to determine the values of nitrogen (N) balance of male Bligon and Kejobong goat fed with king grass and peanuts crop straw. Five male Bligon and Kejobong goats, age 6-8 months and average body weight 18-20 kg, were placed in metabolism cages. King grass age 49 days and peanuts crop straw and water were supplied ad libitum. This experiment was done with 14 days adaptation period and 7 days collection period. Feed intake was recorded everyday. At the collection period feed and refusal feed samples were collected for dry matter and N values analysis. The amount of feces and urine were recorded and samples were taken everyday. The dry matter and N contents of feces samples were analyzed, while urine samples were analyzed for N contents. Nitrogen balance values were calculated based on N consumption and N excreted through in feces and urine. The data were analyzed by Independent sample T-test. The results of experiment showed that the differences of dry matter intake, N intake, N excreted through in feces, N digestible, and N balance were not significant, in spite of N digestible in Bligon goat was lower than Kejobong. The N excreted through in urine was significant ($P<0.05$). The amount of dry matter intake, N intake, N excreted through in feces, N digestible, N excreted through in urine, and N balance of Bligon goat are 72.40 g/kg metabolic body weight/day; 1.18 g/kg metabolic body weight/day; 0.39 g/kg metabolic body weight/day; 0.79 g/kg metabolic body weight/day; 0.26 g/kg metabolic body weight/day; dan 0.53 g/kg metabolic body weight/day, while for Kejobong goat are 78.37 g/kg metabolic body weight/day; 1.31 g/kg metabolic body weight/day; 0.40 g/kg metabolic body weight/day; 0.91 g/kg metabolic body weight/day; 0.37 g/kg metabolic body weight/day; dan 0.54 g/kg metabolic body weight/day. Respectively, it can be concluded there were not difference in N balance between male Bligon and Kejobong goat and the values was positive, king grass and peanuts crop straw was able to fulfill the N requirement for male Bligon and Kejobong goat.

Key words : Bligon goat, Kejobong goat, King grass, Peanuts crop straw, Nitrogen balance.