

**ESTIMASI SINTESIS PROTEIN MIKROBIA DALAM RUMEN  
MENGGUNAKAN DERIVAT PURIN DALAM SPOT SAMPLING URINE  
KAMBING BLIGON DI DESA BANYUSOCO, GUNUNGGIDUL**

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**INTISARI**

Penelitian ini bertujuan untuk mengetahui estimasi sintesis protein mikrobial dalam rumen pada kambing Bligon di Desa Banyusoco, Gunungkidul. Penelitian dilakukan di dua lokasi yaitu Dusun Ketangi dan Dusun Banyusoco. Kambing yang digunakan dalam penelitian berjumlah 16 ekor dengan 8 ekor kambing milik peternak di Dusun Ketangi dan 8 ekor kambing milik peternak di Dusun Banyusoco. Penelitian menggunakan desain analisis *independent T-test*. Pakan yang diberikan adalah hijauan berupa rumput, leguminosa, dedaunan dan limbah pertanian yang mudah didapat di Dusun Ketangi dan Dusun Banyusoco. Parameter yang diteliti yaitu konsumsi dan pencernaan bahan kering dan bahan organik, kadar derivat purin, ekskresi total derivat purin dan estimasi sintesis protein mikrobial. Penelitian meliputi periode pra penelitian dan periode koleksi selama 10 hari. Koleksi sampel terdiri atas pakan dan sisa pakan, feses total selama 24 jam, urin total selama 24 jam dan *spot sampling urine* yang diambil sekitar 2 hingga 5 jam setelah ternak diberi pakan pagi. Sampel pakan dan feses dianalisis kadar bahan kering dan bahan organik menggunakan metode analisis proksimat. Sampel urin dianalisis kandungan kreatinin dan kandungan derivat purin berupa allantoin, asam urat, xanthin dan hipoxanthin. Berdasarkan hasil penelitian diketahui tidak terdeteksi adanya perbedaan secara nyata ( $P > 0,05$ ) pada tiap parameter yang diamati diantara kedua dusun.

(Kata kunci: Ekskresi, Derivat purin, *Spot sampling urine*, Kambing Bligon, Banyusoco)

## **ESTIMATION OF RUMEN MICROBIAL PROTEIN SYNTHESIS BASED ON SPOT SAMPLING URINARY PURINE DERIVATIVES ON BLIGON GOAT IN BANYUSOCO, GUNUNGKIDUL**

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### **ABSTRACT**

The present research was done to estimate rumen microbial protein synthesis on Bligon goat in Banyusoco village, Gunungkidul. Research was located in two places, Ketangi and Banyusoco sub village. Sixteen female Bligon goats were used in the research, 8 goats in Ketangi and 8 goats in Banyusoco. Research data was analyzed using Independent sample T-test. Feeds used in the research were *gramineae*, *leguminoceae*, leaves and agriculture by products which are easily obtained in the village. Parameters observed were dry matter and organic matter intake, digestible dry matter and organic matter, purine derivatives concentration, purin derivatives excretion and estimation of microbial protein synthesis. Research were consisted of pra-research period and sample collection period for 10 days. Samples collected were feed given, feed residue, feces produced on 24 hours and spot sampling urine about 2 to 5 hours after morning feed. Feed and feces samples were analyzed for dry matter and organic matter using proximate analysis. Urine were analyzed for creatinine and purine derivatives (allantoin, uric acid, xanthin hypoxanthin). Results showed there were differences detected in two sub villages of all observed parameters.

(Keywords: Excretion, Purine derivatives, Spot sampling urine, Bligon goat, Banyusoco)