

**PENGARUH SUPLEMENTASI KOMBINASI MINYAK KEDELAI TERPROTEKSI  
DAN NONPROTEKSI TERHADAP KARAKTERISTIK FERMENTASI RUMEN  
DAN KECERNAAN NUTRIEN DOMBA GARUT**

**INTISARI**

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Penelitian ini bertujuan untuk mengetahui pengaruh suplementasi kombinasi minyak kedelai terproteksi dan nonproteksi terhadap profil asam lemak rumen, karakteristik fermentasi rumen, kecernaan nutrien, dan keseimbangan nitrogen domba Garut. Dua belas ekor domba Garut jantan berumur 13 bulan dan berbobot  $29,11 \pm 3,23$  kg dipelihara di dalam kandang metabolis dan dibagi menjadi 3 kelompok perlakuan suplementasi kombinasi minyak kedelai terproteksi dan nonproteksi dengan imbalan berbeda yaitu 3%:0%, 1,5%:1,5%, dan 3%:0%. Ransum terdiri dari rumput Raja 60% dan bran pollard 40%. Periode adaptasi dilakukan selama 2 minggu untuk menstabilkan konsumsi dan ekskresi. Setelah itu dilakukan koleksi sampel yang berlangsung satu minggu. Data yang diperoleh dianalisis variansi pola searah dalam rancangan acak lengkap dengan uji lanjut DMRT. Hasil penelitian menunjukkan bahwa tidak ada perbedaan antar perlakuan yang nyata pada profil asam lemak rumen, karakteristik fermentasi rumen, kecernaan nutrien, dan keseimbangan nitrogen. Kesimpulan dari penelitian ini ialah suplementasi kombinasi minyak kedelai terproteksi 3% dan nonproteksi 0% dari BK ransum tidak berpengaruh negatif terhadap karakteristik fermentasi rumen dan kecernaan nutrien domba Garut.

Kata kunci: Suplementasi minyak, Minyak kedelai, Karakteristik fermentasi rumen, Kecernaan nutrien

**EFFECT OF PROTECTED AND NON-PROTECTED SOYBEAN OIL  
COMBINATION SUPPLEMENTATION ON RUMEN FERMENTATION  
CHARACTERISTICS AND NUTRIENT DIGESTIBILITY OF GARUT SHEEP**

**ABSTRACT**

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This study aimed to determine the effect of protected and non-protected soybean oil combination supplementation on the rumen fatty acid profile, characteristics of rumen fermentation, nutrient digestibility, and nitrogen balance of Garut sheep. Twelve male Garut lambs aged 13 months and weighing  $29,11 \pm 3.23$  kg were reared in metabolic cages and divided into 3 treatment groups of supplementations with a combination of protected and non-protected soybean oil with different balances, namely 3%:0%, 1.5%:1.5%, and 3%:0%. The diet was consisted of 60% of King grass and 40% bran pollard. The adaptation period was carried out for 2 weeks to stabilize consumption and excretion. After that, the sample collection was carried out which lasted one week. The data obtained were analyzed by One-Way ANOVA, followed by the Duncan Multiple Range Test. The results showed that there was no significant difference between treatments in rumen fatty acid profile, rumen fermentation characteristics, nutrient digestibility, and nitrogen balance. The conclusion of this study was that supplementation of combination of 3% protected soybean oil and 0% non-protected soybean oil did not negatively affect the rumen fermentation characteristics and nutrient digestibility of Garut sheep.

**Keywords:** Oil supplementation, Soybean oil, Rumen fermentation characteristics, Nutrient digestibility, Garut sheep