

INTISARI

PENGARUH PERUBAHAN ASUPAN PAKAN TERHADAP KADAR KOLESTEROL DARAH KAMBING PERANAKAN ETTAWA

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Penelitian ini bertujuan untuk mengkaji pengaruh asupan pakan terhadap kadar kolesterol darah pada kambing peranakan ettawa (PE). Penelitian ini dilakukan dengan menggunakan kambing Peranakan ettawa (PE) sebanyak tiga ekor yang dipelihara dalam kandang individu, berumur kira-kira 1 tahun, jenis kelamin jantan dan secara klinis sehat. Kambing diberi perlakuan pakan menjadi tiga periode yaitu Periode I (*Full feeding*) dengan pemberian pakan secara *ad libitum* dilanjutkan dengan Periode II (*Restriction*) dengan pemberian pakan dibatasi 50% dari jumlah awal dan diikuti dengan Periode III (*Refeeding*) dengan pemberian pakan kembali *ad libitum*. Lama setiap periode adalah empat minggu. Pengambilan sampel darah vena (5 ml) dilakukan pada minggu terakhir setiap periode (minggu ke 4, 8 dan 12). Serum dipisahkan dengan cara sentrifugasi dan disimpan pada temperatur -20°C sampai pemeriksaan dilakukan. Kadar kolesterol diukur dengan metoda spektrofotometrik. Perubahan kadar kolesterol selama periode perlakuan dianalisis dengan ANOVA (*Analysis of Variance*) dan dilanjutkan dengan DMRT (*Duncan Multiple Range Test*). Hasil analisis statistik dapat dinyatakan signifikan bilamana $P < 0,05$.

Rerata kadar kolesterol pada Periode I (*Full feeding*) sebesar $73,00 \pm 26,06$ mg/dL, pada Periode II (*Restriction*) sebesar $104,33 \pm 28,02$ mg/dL dan pada Periode III (*Refeeding*) sebesar $66,00 \pm 10,15$ mg/dL. Penurunan asupan pakan mengakibatkan adanya peningkatan kadar kolesterol meskipun secara analisis statistik tidak menunjukkan perbedaan yang nyata ($P > 0,05$). Berdasarkan hasil penelitian dapat disimpulkan bahwa penurunan asupan pakan dapat mengakibatkan peningkatan kadar kolesterol di dalam serum.

Kata Kunci : asupan pakan, kambing Peranakan ettawa, kolesterol.

ABSTRACT

EFFECT OF FEED INTAKE CHANGE TO BLOOD CHOLESTEROL LEVELS IN ETTAWA CROSSBREED GOATS

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This study was aimed to evaluate the effect of feed intake on blood cholesterol level in Ettawa crossbreed goats. This study was done by using three clinically healthy adult male Ettawa crossbreed goats. The goats were fed *ad libitum* for the first four weeks (Period I, *Full feeding*). During the weeks 5-8 the animals were fed 50% of the amount Period I (*Full feeding*) and during the week 9-12 the animals were fed *ad libitum* again. Five milliliters of blood samples were taken on week 4 of each period. Serum was separated by centrifugation and stored at -20°C until the chemical analysis were conducted. Cholesterol levels were measured by the spectrophotometric method. Change of cholesterol level, during the period were analyzed by ANOVA (*Analysis of Variance*).

The serum cholesterol concentration increased slightly as the feed intake was restricted (from $73,00 \pm 26,06$ mg/dL in Period I to $104,33 \pm 28,02$ mg/dL in Period II) and decreased again to the level of $66,00 \pm 10,15$ mg/dL at the end of Period III (*Refeeding*). It could indicated that feed intake might have influence on serum cholesterol level in Ettawa crossbreed goats.

Keywords: feed intake, Ettawa crossbreed goats, cholesterol.