

## **Perbedaan Komposisi Kimia Susu Pemerahan Pagi Kambing Peranakan Ettawa pada Awal dan Tengah Periode Laktasi Pertama dan Kedua**

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### **INTISARI**

Penelitian ini bertujuan untuk mengetahui perbedaan komposisi kimia susu pemerahan pagi kambing Peranakan Ettawa pada awal dan tengah periode laktasi pertama dan kedua ditinjau dari bahan kering, abu, protein, lemak, dan asam organik. Penelitian dilaksanakan di *Garage Farm*, Cebongan, Yogyakarta pada bulan September sampai Desember 2021. Ternak yang digunakan dalam penelitian ini adalah 17 ekor kambing PE yang terdiri dari 7 ekor laktasi pertama awal dan tengah dengan rentang umur 17 sampai 26 bulan dan 10 ekor laktasi kedua awal dan tengah dengan rentang umur 21 sampai 31 bulan. Pakan yang diberikan adalah sesuai dengan kebiasaan pemberian pakan yang dilakukan peternak sehari-hari (*current feeding system*, CFS) dengan kuantitas yang sama tiap ekornya. Perbedaan rata-rata nilai bahan kering, kadar abu, kadar lemak, kadar protein, dan kadar asam organik pada kambing PE laktasi pertama dan kedua diuji menggunakan *two-way* ANOVA. Kadar bahan kering periode laktasi pertama dan kedua diperoleh  $14,44 \pm 1,59$  dan  $13,44 \pm 2,50$  serta awal dan tengah laktasi diperoleh  $14,15 \pm 2,63$  dan  $13,70 \pm 2,13$ . Kadar lemak periode laktasi pertama dan kedua diperoleh  $5,33 \pm 1,86$  dan  $4,42 \pm 1,78$  serta awal dan tengah laktasi  $4,73 \pm 1,88$  dan  $4,97 \pm 2,11$ . Kadar protein periode laktasi pertama dan kedua diperoleh  $3,65 \pm 1,13$  dan  $3,67 \pm 0,62$  serta awal dan tengah laktasi  $3,60 \pm 0,61$  dan  $3,72 \pm 1,12$ . Hasil penelitian menunjukkan bahwa komposisi kimia susu pemerahan pagi kambing PE di *Garage Farm* telah sesuai standar kecuali asam organik. Tidak ada perbedaan yang nyata pada kadar bahan kering, abu, lemak, dan protein pada susu pemerahan pagi kambing Peranakan Ettawa pada awal dan tengah periode laktasi pertama dan kedua.

Kata kunci: Kambing Peranakan Ettawa, Periode Laktasi, Laktasi Awal Tengah, Komposisi Kimia Susu

## DIFFERENCES OF THE CHEMICAL COMPOSITION OF ETTAWA CROSSBREED MORNING MILKING IN EARLY AND MIDDLE OF THE FIRST AND SECOND LACTATION PERIODS

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### ABSTRACT

This research was aimed to determine the difference of the chemical composition of Ettawa Crossbreed goats morning milking in the first and second lactation periods in terms of dry matter, ash, protein, fat, and organic acids. This research conducted at Garage Farm, Cebongan, Yogyakarta from September 2021 to December 2021. The livestock used in this study were 17 PE consisting of 7 first lactating with an age range 17 up to 26 months and 10 second lactating with an age range 21 up to 31 months. The feed given is in accordance with the daily feeding habits of the farmers (current feeding system, CFS) with the same quantity per head. The difference in the average value of dry matter, ash, fat, protein, and organic acid in the first and second lactation PE goats was tested using two way ANOVA Dry matter percentage in the first and second lactation was  $14,44 \pm 1,59$  and  $13,44 \pm 2,50$  then early and middle lactation was  $14,15 \pm 2,63$  dan  $13,70 \pm 2,13$ . Fat percentage in the first and second lactation was  $5,33 \pm 1,86$  dan  $4,42 \pm 1,78$  78 then early and middle lactation was  $4,73 \pm 1,88$  dan  $4,97 \pm 2,11$ . Protein percentage in the first and second lactation was  $3,65 \pm 1,13$  and  $3,67 \pm 0,62$  then early and middle lactation was  $3,60 \pm 0,61$  dan  $3,72 \pm 1,12$ . The result was the chemical composition of Ettawa Crossbreed goats in Garage Farm was up to standar except organic acid. The number of dry matter, ash, protein, and fat were rised nonsignificantly ( $P > 0,05$ ) between early and middle first and second lactation periods. The conclusion of this study is that there is no difference of the chemical composition of Ettawa Crossbreed goats morning milking in early and middle first and second lactation periods.

Keywords: Ettawa Crossbreed, Lactation Period, Early Middle, Milk Chemical Composition