

KOMPOSISI SUSU SAPI PERANAKAN FRIESIAN HOLSTEIN DENGAN  
RANSUM DISUPLMENTASI *UNDEGRADED PROTEIN (UDP)*

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan UDP terhadap komposisi susu pada sapi perah Peranakan Friesian Holstein. Dua puluh sapi laktasi produksi rendah (<10l/hari) dibagi menjadi dua kelompok, yaitu kontrol dan perlakuan, masing-masing 10 ekor. Kelompok perlakuan yang diberi ransum dengan ditambah UDP 30 gram/liter produksi susu. Pakan diberikan dua kali sehari, pukul 08.00 dan 14.00, demikian pula pemerahan dilakukan dua kali sehari, pukul 07.00 dan 13.00. Sampel susu diambil setiap enam hari sekali dan kandungan lemak dan protein susu dianalisis menggunakan milkoscan. Bahan Kering (BK) dan Bahan Kering Tanpa Lemak (BKTL) dihitung dengan rurus hubungan antara kadar lemak, BK dan BKTL. Variabel yang diarnati adalah berat badan, konsumsi pakan (BK, PK dan ME) dan komposisi susu (Lemak, protein, BK dan BKTL susu). Data yang diperoleh dianalisis variansi dengan *Split-plot* dan perbedaan rerata dilanjutkan dengan uji DMRT. Hasil penelitian menunjukkan bahwa berat badan, konsumsi BK, PK dan ME tidak berbeda nyata ( $P < 0,05$ ). Rerata berat badan awal dan akhir untuk kelompok kontrol dan perlakuan adalah 388,88 dan 339,06 kg, dan 393,75 dan 359,75 kg. Konsumsi BK, PK dan ME untuk kontrol dan perlakuan berturut-turut adalah 9,98 dan 10,06 kg/hari, 1,526 dan 1,567 kg/hari, 17,876 dan 18,796 Mcal/hari. Persentase lemak, protein BKTL dan BK susu juga tidak berbeda, masing-masing untuk kontrol dan perlakuan adalah 3,73 dan 3,58%; 2,46 dan 2,24%; 8,67 dan 8,63%; 12,40 dan 12,20%. Berdasarkan penelitian, dapat disimpulkan bahwa suplementasi UDP 30g/l susu tidak berpengaruh pada komposisi susu.

(Kata kunci : Komposisi Susu, Sapi Peranakan Holstein, *Undegraded Protein (UDP)*)

MILK COMPOSITION ON FRIESIAN HOLSTEIN CROSSBREED COWS WITH  
DIET SUPPLEMENTED *RUMEN UNDEGR&DED PROTEIN (RUB)*

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ABSTRACT

The experiment was conducted to determine the effect of Rumen's Undegradable Protein (RUP) on milk composition in Friesian Holstein Crossbred cows. Twenty low milk production cows (CIO 1/d) were assigned randomly into two groups, control and treatment, which each group consisted of 10 heads. The concentrate of the treatment group were supplemented with RUP ration 30g/l milk production. Fed to the cows twice a day at 08.00 and 14.00, so that the cows were milked twice a day at 07.00 and 13.00. Milk samples were taken once every six days, ror analyzed milk fat and protein using Milkoscan. TS and SNF were calculated with Lowry'sthe relation of milk fat, Ts dan SNF's formula. Body weight, feed intake and milk composition were observed as a variables in this study. Collected data were analyzed by Split-plot and then followed by DMRT when there was differences between treatment. The result of the experiment indicated that body weight and intake of DM, CP and ME were not significantly affected by RUP ( $P < 0,05$ ). Average body weight at the starting of the study was 388,88 for control and 339,06 kg for treatment, while at the end of the study were 393,75 for control and 359,75 kg for treatment. Intake of DM, CP and ME for control and treatment were 9,98 vs 10,06 kg/d, 1,526 vs 1,567 kg/d, and 17,876 vs 18,796 Mcal/d, respectively. Percentages of milk fat, protein, SNF and TS were not significantly defferent between control and treatment i.e. 3,73 vs 3,58%, 2,46 vs 2,24%, 8,67 vs 8,63%, and 12,40 vs 12,20%, respectively. It concluded that the supplementation of 30g/l milk RUP didn't affect milk composition.

(Key words : Friesian Holstein Crossbred Cows, Milk Composition, Rumen's Undegraded Protein (RUP))