

**KINERJA REPRODUKSI DAN KADAR MILK UREA
NITROGEN PADA SAPI PERAH PERANAKAN
FRIESIAN HOLSTEIN FERTIL DAN
REPEAT BREEDING
DI KOPERASI
SAMESTA**

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INTISARI**

Penelitian ini dilakukan untuk mengetahui kinerja reproduksi dan kadar *milk urea nitrogen* (MUN) susu pada sapi perah Peranakan *Friesian Holstein* (PFH) fertil dan *repeat breeding* di Koperasi SAMESTA. Penelitian ini menggunakan 8 ekor sapi PFH, terdiri dari 4 ekor sapi fertil dan 4 ekor sapi *repeat breeding*. Sapi PFH dalam kondisi sehat, tidak bunting dan periode laktasi II sd VI. Pakan yang diberikan terdiri dari konsentrat, hijauan dan mineral blok. Pakan hijauan dan konsentrat diberikan pada pagi dan sore hari, air minum diberikan secara *ad libitum*. Mineral blok diberikan dengan cara digantung di kandang, paralel dengan kepala sapi, agar dapat dijilati dengan mudah oleh sapi. Parameter yang diamati meliputi penilaian respon estrus, *service per conception* (S/C), dan kadar MUN. Penelitian ini diawali dengan identifikasi siklus estrus dengan *vaginal smear* setiap dua hari sekali. Penilaian respon estrus dilakukan dengan mengamati gejala visual dan tingkah laku sapi. Sampel susu diambil seminggu sekali pada pemerahan pagi. Selanjutnya dilakukan analisis kadar MUN di LPPT UGM. Data kinerja reproduksi berupa *service per conception* (S/C) didapatkan dari hasil pencatatan selama periode penelitian. Data kinerja reproduksi dan kadar MUN dianalisis secara deskriptif. Hasil penelitian menunjukkan rata-rata penilaian respon estrus dan S/C pada sapi perah PFH fertil dan sapi perah PFH *repeat breeding* secara berturut-turut yaitu $2,05 \pm 0,33$ dan $1,94 \pm 0,21$; $2,25 \pm 0,47$ dan $5,00 \pm 1,08$. Kadar MUN pada sapi PFH fertil dan *repeat breeding* adalah $20,60 \pm 2,60$ mg/dL dan $24,97 \pm 8,06$ mg/dL. Dapat disimpulkan bahwa kinerja reproduksi sapi perah Peranakan *Friesian Holstein* fertil dan *repeat breeding* di Koperasi SAMESTA dalam kisaran normal, namun kadar milk urea nitrogen di atas standar normal.

Kata kunci: Sapi Peranakan *Friesian Holstein*, *Repeat breeding*, *Milk urea nitrogen*, *Service per conception*.

REPRODUCTIVE PERFORMANCE AND MILK UREA NITROGEN LEVELS OF FERTILE AND REPEATED BREEDING FRIESIAN HOLSTEIN CROSSBREED COWS IN SEMESTA DAIRY COOPERATIVE

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ABSTRACT

This research was aimed to determine the reproductive performance and milk urea nitrogen (MUN) levels of fertile and repeated breeding Friesian Holstein Crossbreed (PFH) cows in Semesta Dairy Cooperative. As much as 8 PFH cows were used in this research, consisting of 4 fertile cows and 4 repeated breeding cows which were under good health condition, not in pregnancy period and on the 2nd up to 6th lactation period. The feed ratio given was concentrate and forages, given twice a day in the morning and in the evening. The drinking water was supplied ad libitum, and the mineral supplement blocks was hung parallelly to the head of the cow to made it easily accessed. The observed parameters were estrous response evaluation, service per conception (S/C), and MUN levels. The research was begun with estrous cycle determination using vaginal smear methods in every two days. Estrous response evaluation was done by observation of estrous visual symptoms and behaviors of the cows. The MUN levels analysis was done in LPPT UGM from milk samples which were taken once a week from the morning milking. The S/C data were recorded during the research period. The reproductive performance and MUN levels were analyzed descriptively. The result showed that the average estrous response and S/C of the fertile PFH cows and repeated breeding PFH cows were 2.05 ± 0.33 and 1.94 ± 0.21 ; 2.25 ± 0.47 and 5.00 ± 1.08 respectively. The MUN levels of the fertile PFH cows and repeated breeding PFH cows were 20.60 ± 2.60 mg/dL and 24.97 ± 8.06 mg/dL. The conclusion that can be drawn was the reproductive performance of the fertile and repeated breeding PFH cows in the Semesta Dairy Cooperative was in normal range, however the MUN levels were above the normal standard.

Keywords: Friesian Holstein Crossbreed cows, repeated breeding, milk urea nitrogen, service per conception.