

PROFIL HORMON PROGESTERON DAN EFISIENSI REPRODUKSI SAPI PERAH PERANAKAN FRIESIAN HOLSTEIN

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INTISARI

Penelitian ini bertujuan untuk mengetahui profil hormon progesteron dan efisiensi reproduksi sapi perah peranakan Friesian holstein. Materi penelitian yang digunakan adalah lima ekor sapi peranakan Friesian holstein di Unit Pelaksana Teknis Sapi Perah, Fakultas Peternakan, Universitas Gadjah Mada, dengan berat badan 400 sampai 450 kilogram. *Vaginal smear* dilakukan setiap hari selama satu kali siklus estrus untuk identifikasi fase siklus estrus. Sampel darah diambil satu kali pada fase diestrus, disertai dengan pengambilan data fisiologis ternak. Darah disentrifuge pada kecepatan 3000 rpm selama 10 menit. Sampel plasma darah diuji menggunakan teknik *Enzyme Linked Immuno-Sorbent Assay* (ELISA) dengan kit hormon progesteron (DRG, Jerman) untuk mengetahui kadar hormon progesteron. Data efisiensi reproduksi berupa *calving interval* (CI), *days open* (DO), dan *service per conception* (S/C) diperoleh dari data Recording yang sudah ada. Dilakukan analisis deskriptif untuk mengetahui profil hormon progesteron dan efisiensi reproduksi. Hasil penelitian menunjukkan bahwa rata-rata *calving interval*, *days open*, *service per conception*, dan fase luteal berturut-turut adalah $576 \pm 196,04$ hari, $312 \pm 223,19$ hari, $2,24 \pm 1,28$ kali, $16,6 \pm 3,71$ hari. Rata-rata kadar hormon progesteron sebesar $12,04 \pm 7,13$ ng/ml. Sapi P1 memiliki kadar hormon progesteron yang panjang yaitu 21, 73 ng/ml. Sapi P5 memiliki kadar hormon progesteron yang rendah yaitu 3,44 ng/ml. Sapi perah PFH memiliki efisiensi reproduksi yang rendah dan kadar hormon progesteron yang tinggi.

(Kata kunci: Sapi Perah Friesian holstein, Hormon progesteron, Efisiensi reproduksi)

PROGESTERONE HORMONE PROFILE AND REPRODUCTION EFFICIENCY OF FRIESIAN HOLSTEIN GRADE COWS

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ABSTRACT

This study was carried out to determine progesterone hormone profile and reproduction efficiency of Friesian Holstein Grade cows. Five non pregnant Friesian Holstein grade cows with 400 to 450 in weight maintained in Faculty of Animal Science, Gadjah Mada University were used in the research. *Vaginal smear* identification was done every days during two estrous cycle for the estrous cycle identification. Blood samples were collected at a diestrous phase along with physiological data collection. Blood samples were sentrifuged at 3000 rpm for 10 minutes. Blood plasma samples were tested using progesterone hormone kit (DRG, Jerman) by Enzyme Linked Immuno-Sorbent Assay (ELISA) method for the progesterone hormone levels. Reproduction efficiency based on calving interval (CI), days open (DO), and service per conception (S/C) were collected from the recording. Data of progesteron hormone levels and reproduction efficiency were analyzed descriptively. The result showed that average of calving interval, days open, service per conception, and luteal phase were 576 ± 196.04 days, 312 ± 223.19 days , 2.24 ± 1.28 times, and 16.6 ± 3.71 days. The average of progesteron hormone levels was 12.04 ± 7.13 ng/ml. P1 cow has 21,73 ng/ml high progesterone hormone level. P5 cow has 3,44 ng/ml low progesterone hormone level. Friesian holstein grade cows has high progesterone hormone levels and low reproduction efficiency.

(keywords : Friesian holstein grade cows, progesterone hormone, reproduction efficiency)