

HUBUNGAN ANTARA PROFIL BIOKIMIA DARAH DENGAN KINERJA REPRODUKSI SAPI PERANAKAN FRIESIAN HOLSTEIN LAKTASI DI KOPERASI SAPI MERAPI SEJAHTERA

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INTISARI

Penelitian ini bertujuan untuk mengetahui hubungan antara profil biokimia darah (glukosa, albumin dan fosfor) dengan kinerja reproduksi sapi Peranakan Friesian Holstein laktasi. Penelitian ini menggunakan sampel darah dari 14 ekor sapi Peranakan Friesian Holstein laktasi, berumur 2,5 sampai 6,0 tahun. Pakan yang diberikan yaitu hijauan dan konsentrat dan air minum diberikan secara ad libitum. Sampel darah diambil melalui *vena caudalis* pada malam hari delapan jam setelah pemberian pakan. Sampel darah dianalisis kadar glukosa, albumin dan fosfor. Analisis sampel darah dilakukan di Laboratorium Penelitian dan Pengujian Terpadu Universitas Gadjah Mada (LPPT UGM). Pemeriksaan kadar glukosa darah dengan menggunakan metode oxidase-phenol 4-aminoantipirin (GOD-PAP), kadar albumin dengan menggunakan metode photometrics bromcresol green, kadar fosfor dengan menggunakan metode cypress diagnostic. Data kinerja reproduksi meliputi *post partum mating* dan *service per conception* didapatkan dari hasil pencatatan. Data biokimia darah dikorelasikan dengan kinerja reproduksi dengan korelasi model *pearson correlation*. Hasil penelitian menunjukkan bahwa koefisien korelasi albumin terhadap *service per conception* yaitu -0,741. Koefisien korelasi fosfor terhadap *post partum mating* yaitu -0,810. Terdapat korelasi negatif antara kadar albumin dan fosfor dengan *service per conception* pada sapi Peranakan Friesian Holstein.

Kata kunci : Sapi Peranakan Friesian Holstein, biokimia darah dan kinerja reproduksi.

**RELATIONSHIP BETWEEN BLOOD BIOCHEMISTRY PROFILE
WITH REPRODUCTIVE PERFORMANCE IN
FRIESIAN HOLSTEIN CROSSBREED
LACTATION COWS IN SAPI
MERAPI SEJAHTERA UNIT**

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ABSTRACT

This research was designed to observed the relationship between blood biochemistry profile (glucose, albumin, phosphor) with reproductive performance of Friesian Holstein Crossbred lactation cows. Fourty of Friesian Holstein Crossbred lactation cows, 2.5-6.0 years old were used in this researchs. The cows were feed forage, concentrates, and adlibitum access to water. The blood samples were collected trough the *caudalis vein* at night 8 hour after feeding. The blood samples were analysis for plasma glucose, albumin, and phospor. Blood sample analysis were conducted at the Laboratorium Penelitian dan Pengujian Terpadu Universitas Gadjah Mada (LPPT UGM). The measure blood glucose level was measured using glucose oxidase-phenol 4-aminoantipirin (GOD-PAP) method, whereas albumin and phosphor content were measure using photometrics bromcresol green method and cypress diagnostic, respectively. Reproduction performance data included *post partum mating* and *service per conception* were estimate from the recording. The data of blood biochemistry were correlated with reproductive performance using pearson correlation model. The result showed that the correlation coefficient of albumin and phospor to *service per conception* were -0.74 and -0.810, respectively. That there were negative correlation between albumin and phosphor level with *service per conception* in Friesian Holstein Crossbred lactation cows.

Keywords : Friesian Holstein Crossbred cows, blood biochemistry profile, reproductive performance.