

**KORELASI KOLESTEROL, TOTAL PROTEIN DAN TRIGLISIERIDA
TERHADAP KINERJA REPRODUKSI SAPI PERAH
FRIESIAN HOLSTEIN LAKTASI
DI PETERNAKAN RAKYAT**

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INTISARI

Penelitian ini bertujuan untuk mengetahui korelasi kadar kolesterol, kadar total protein dan kadar triglisierida dalam darah terhadap kinerja reproduksi sapi perah yang meliputi *service per conception* dan *post partum mating* pada sapi perah Friesian Holstein laktasi di peternakan rakyat. Sampel darah sapi perah FH diambil 8 jam setelah pemberian pakan melalui *vena caudalis* dengan menggunakan *vaccum holder* dengan EDTA kemudian disimpan pada suhu 5° C dan dianalisis pada Laboratorium Penelitian dan Pengujian Terpadu Universitas Gadjah Mada (LPPT UGM). Pemisahan plasma dilakukan dengan cara sentrifugasi dengan kecepatan 3000 rpm selama 10 menit. Data kinerja reproduksi meliputi *post partum mating* dan *service per conception* didapatkan dari hasil *recording*. Parameter yang diamati meliputi kadar kolesterol, total protein, dan triglisierida darah. Pemeriksaan kadar kolesterol darah dengan menggunakan metode kolesterol oksidase – phenol aminophenazone (CHOD-PAP), kadar total protein dengan menggunakan metode tes fotometrik berdasarkan biuret, kadar triglisierida dengan menggunakan Gliserol Posfo Oksidase - Phenol 4 - Aminoantipirin (GPO-PAP). Data profil biokimia darah dikorelasikan dengan kinerja reproduksi dengan korelasi model *pearson correlation*. Masing-masing hasil penelitian menunjukkan bahwa koefisien korelasi kolesterol terhadap *service per conception* dan terhadap *post partum mating* yaitu 0,457 dan 0,330. Koefisien korelasi total protein terhadap *service per conception* terhadap *post partum mating* yaitu 0,424 dan 0,199. Selain itu, koefisien korelasi triglisierida terhadap *service per conception* dan *post partum mating* yaitu 0,204 dan 0,621. Dapat disimpulkan bahwa terdapat korelasi positif antara kolesterol terhadap *post partum mating*, total protein terhadap *post partum mating* dan *service per conception* pada sapi FH.

(Kata kunci : kolesterol, total protein, triglisierida, laktasi, sapi Friesian Holstein, kinerja reproduksi, metabolit darah)

CORRELATION OF CHOLESTEROL, TOTAL PROTEIN AND TRIGLICERIDE WITH REPRODUCTIVE PERFORMANCE OF FRIESIAN HOLSTEIN LACTATION IN SMALLHOLDER FARMER

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ABSTRACT

This research was designed to observed the correlation of blood cholesterol levels, total protein levels and triglyceride levels on the reproductive performance (service per conception and post partum mating) of Friesian Holstein (FH) lactation in smallholder farmer. The 12 blood samples of FH lactating cows were collected at 8 hours after feeding through caudal vein using a vaccum holder with EDTA, then stored in a temperature of 5° C and analyzed at the Laboratorium Penelitian dan Pengujian Terpadu Universitas Gadjah Mada (LPPT UGM). The plasma separation was carried out by centrifugation at a speed of 3000 rpm for 10 minutes. Reproductive performance (post partum mating and service per conception), cholesterol, total protein and triglyceride level, were measured. Blood cholesterol levels was measured using aminophenazone cholesterol oxidase - phenol (CHOD-PAP) method. Blood total protein levels was measured using the biuret method. Triglyceride levels were measured using glycerol Posfo Oksidase - Phenol 4 - Aminoantipirin (GPO-PAP). The biochemical profile of blood was correlated with reproductive performance by Pearson correlation models. The results showed that the coefficient of cholesterol on service per conception and post partum mating were 0.457 and 0.330 respectively. Whereas the total protein coefficient on service per conception and post partum mating were 0.424 and 0.199. Moreover, the coefficient of triglycerides for services per conception and post partum mating were 0.204 and 0.621. It can be concluded that there is a positive correlation between cholesterol and post partum mating, total protein and post partum mating, and service per conception of Friesian Holstein cattle.

(Keywords: cholesterol, total protein, triglycerides, lactation, Friesian holstein breeds, reproductive performance, blood metabolites)