

PROFIL BIODIAGNOSTIK DARAH SAPI FRIESIAN HOLSTEIN YANG KAWIN BERULANG DI UNIT PELAKSANA TEKNIS TERNAK PERAH FAKULTAS PETERNAKAN UNIVERSITAS GADJAH MADA

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INTISARI

Penelitian ini bertujuan untuk mengetahui profil biokimia darah yang terdiri dari glukosa darah, kolesterol kadar, dan urea darah pada sapi perah Peranakan Friesian Holstein (PFH) yang mengalami kejadian kawin berulang di Unit Pelaksana Teknis (UPT) Ternak Perah Fakultas Peternakan Universitas Gadjah Mada (UGM). Tahap awal penelitian adalah identifikasi sapi normal dan yang mengalami kawin berulang melalui data *recording*. Identifikasi siklus estrus dilakukan setiap hari selama dua kali siklus estrus untuk mengetahui siklus estrus ternak. Sampel darah diambil seminggu sekali sebelum diberi pakan melalui vena *caudalis* menggunakan vaccum holder dengan tabung EDTA. Pengambilan sampel darah dilakukan sebanyak tiga kali. Analisis sampel darah dilakukan di Laboratorium Penelitian dan Pengembangan Terpadu UGM. Data yang diperoleh dianalisis dengan menggunakan analisis independent sample t-test untuk mengetahui adanya perbedaan profil biokimia darah pada sapi perah yang kawin berulang dengan sapi perah normal. Hasil Kadar glukosa, kolesterol dan urea darah pada sapi perah yang mengalami kawin berulang adalah $58,53 \pm 3,86$ mg/dl ; $154,81 \pm 16,64$ mg/dl dan $28,10 \pm 3,97$ sedangkan kadar glukosa, kolesterol dan urea darah pada sapi perah yang normal adalah $61,47 \pm 8,87$ mg/dl ; $196,06 \pm 82,02$ mg/dl dan $31,99 \pm 4,80$. Berdasarkan hasil penelitian dapat disimpulkan bahwa sapi PFH yang mengalami kawin berulang dengan sapi PFH normal kadar glukosa darah dan kolesterol darah tidak berbeda nyata, sedangkan kadar urea darah berbeda nyata.

(Kata kunci : glukosa darah, kawin berulang sapi PFH, kolesterol darah, dan urea darah)

BLOOD BIOCHEMICAL PROFILE OF REPEATED BREEDING FRIESIAN HOLSTEIN GRADE COWS IN THE DAIRY PROCESSING UNIT FACULTY OF ANIMAL SCIENCE GADJAH MADA UNIVERSITY

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ABSTRACT

The study was carried out to determine the profile of plasma glucose, plasma cholesterol and blood ureum nitrogen (BUN) of repeated breeding *Friesian Holstein* (FH) grade cows in the Dairy Processing Unit, Faculty of Animal Science, Gadjah Mada University. Six of FH grade cows were equally distribution into two groups i.e. normal breeding and repeated breeding FH grade cows. The Vaginal smear identification was done every days during two estrous cycles to determine the estrous stage. The blood samples were collected through *vena caudalis* used a vaccum holder with EDTA tube. The samples were collected three times every once a week. The blood samples were analysis for plasma glucose, plasma cholesterol and BUN in the Research and Development Integrated Laboratory. Then, the data analyzed using T-test. The result showed that there was no significant difference of plasma glucose and plasma cholesterol between the repeat breeding and normal breeding cows. The averages of plasma glucose and plasma cholesterol of repeated breeding cows were 58.53 ± 3.86 mg/dl and 154.81 ± 16.64 mg/dl whereas of normal breeding cows were 61.47 ± 8.87 mg/dl and 196.06 ± 82.02 mg/dl. Futhermore, there was a significant difference of BUN between the repeated breeding and normal cows. The averages BUN of repeated breeding and normal breeding FH cows were 28.10 ± 3.97 mg/dl dan 31.99 ± 4.80 mg/dl. It can be concluded that repeated breeding FH cows have non significant difference plasma glucose and plasma cholesterol concentrations to the normal breeding FH cows, meanwhile the BUN concentration is significant difference.

(keywords : repeated breeding FH grade cows, plasma glucose, plasma
cholesterols and blood ureum nitrogen)