

## INTISARI

### **PROFIL BOKIMIA DARAH PADA SAPI PERAH YANG MENGALAMI KAWIN BERULANG**

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Kawin berulang pada sapi perah merupakan suatu gejala klinis yang menyebabkan gangguan reproduksi yang ditandai dengan panjangnya *calving interval*. Kekurangan kolesterol dapat mempengaruhi sintesis hormon steroid. Kekurangan kalsium menimbulkan retensi plasenta. Kekurangan glukosa menyebabkan terhambatnya perkembangan folikel dan kematian embrio. Kekurangan protein menyebabkan *delayed ovulation*. Tujuan dari penelitian ini adalah untuk mengetahui konsentrasi glukosa, total kolesterol, kalsium dan total protein pada sapi perah yang mengalami kawin berulang.

Penelitian ini menggunakan 10 ekor sapi perah peranakan *Friesian Holstein* yang mengalami kawin berulang. Pengambilan sampel darah dilakukan pada saat periode estrus dan dilakukan 3,5 jam sebelum sapi diberi pakan. Sebanyak 10 ml sampel darah dikoleksi melalui vena jugularis kemudian dilakukan analisis darah di LPPT UGM. Pemisahan serum dengan cara sentrifugasi dengan kecepatan 4000 rpm selama 10 menit atau 12000 rpm selama 2 menit. Analisis kadar total kolesterol, total protein, kalsium darah dan glukosa darah menggunakan *Photometer Microlab 300* dengan metode analisa spektrofotometer.

Hasil penelitian menunjukkan bahwa sapi perah yang mengalami kawin berulang, kadar glukosa darah, total kolesterol, total protein, dan kalsiumnya memiliki konsentrasi di bawah normal. Rata-rata konsentrasi glukosa darah  $48.58 \pm 6.675$  mg/dl, total kolesterol  $125.95 \pm 38,108$  mg/dl, total protein  $6.815 \pm 0.821$  g/dl, dan kalsium darah  $9.321 \pm 0.94$  mg/dl.

**Kata kunci:** Kawin berulang, Total kolesterol, Total protein, Kalsium, Glukosa

## ABSTRACT

### BLOOD BIOCHEMICAL PROFILE IN REPEAT BREEDING COWS

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Repeated breeding in dairy cows is a clinical symptom that causes reproductive disorders are characterized by length of calving interval. Cholesterol deficiency can affect steroid hormone synthesis. Calcium deficiency causing retained placenta. Deficiency of glucose causes inhibition of follicular development and early embryonic death. Protein deficiency causes delayed ovulation. The purpose of this study was to determine the concentration of glucose, total cholesterol, calcium and total protein in dairy cows that experience repeated breeding.

This research used 10 Friesian Holstein dairy cows that experience repeated breeding. Blood samples were collected during the period of estrus and taken 3.5 hours before the cows were fed. A total of 10 ml blood samples were collected via the jugular vein and blood analysis performed at LPPT UGM. Separation of serum by centrifugation at 4000 rpm for 10 minutes  $\alpha$  12000 rpm for 2 minutes. Analysis of total cholesterol, total protein, blood calcium and blood glucose using a photometer Microlab 300 with a spectrophotometer analysis method.

The results showed in dairy cows that experience repeated breeding, blood glucose, total cholesterol, total protein, and calcium has a concentrations below normal The average concentrations blood glucose  $6675 \pm 48.58$  mg / dl, total cholesterol  $125.95 \pm 38.108$  mg / dl, total protein  $6815 \pm 0821$  g / dl, and blood calcium  $9321 \pm 0.94$  mg / dl.

**Keywords :** Repeat breeding, Total cholesterol, Total protein, Calcium, Glucose