

ABSTRAK

KADAR METABOLIT HORMON PROGESTERON DENGAN WAKTU KOLEKSI PAGI DAN SORE HARI PADA SAPI PERAH LAKTASI

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Pengukuran metabolit progesteron sapi umumnya menggunakan sampel feses yang dikoleksi di pagi hari dikarenakan kandungan metabolit feses pagi dinilai lebih akurat dari sore hari. Akan tetapi hal ini tidak menutup kemungkinan adanya persamaan kadar progesteron feses pagi dan sore hari karena pola sekresi hormon progesteron adalah siklik bukan diurnal. Penelitian ini bertujuan untuk menganalisis perbedaan maupun persamaan kadar metabolit progesteron dari sampel feses sapi perah yang dikoleksi di pagi dan sore hari pada masa laktasi. Feses sapi diekstraksi dengan metode *freeze-dry* menggunakan larutan etanol 80%. Kadar metabolit progesteron sampel diuji dengan *Progesterone Enzyme-Linked Immunosorbent Assay* (ELISA). Rentang kadar metabolit progesteron sampel feses pada pagi dan sore hari berturut-turut adalah 34,86 – 933,04 ng/gr feses kering dan 29,36 – 1423,60 ng/gr feses kering. Variasi kadar metabolit hormon progesteron disebabkan oleh faktor temperatur lingkungan dan iklim harian. Hasil analisis statistik menunjukkan bahwa tidak terdapat perbedaan yang signifikan ($p > 0,05$) antara rata-rata kadar metabolit hormon progesteron pada feses yang dikoleksi di pagi dan sore hari.

Kata kunci : feses, progesteron, sapi perah laktasi, waktu koleksi.

ABSTRACT

PROGESTERONE METABOLITE LEVELS IN THE MORNING AND AFTERNOON COLLECTION TIME IN LACTATING DAIRY COWS

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The measurement of bovine progesterone metabolites generally uses fecal samples collected in the morning because the metabolite content of morning feces is considered to be more accurate than that in the afternoon. However, this does not rule out the possibility of the similarity of progesterone levels in the morning and evening feces, since the pattern of progesterone secretion is cyclic, not diurnal. This present study aims to analyze the differences and similarities in progesterone metabolite levels from morning and evening fecal samples of dairy cows during lactation. Cow feces were extracted by freeze-dry method using 80% ethanol solution. Progesterone metabolite levels in the samples were tested by Enzyme-Linked Immunosorbent Assay (ELISA) method. The range levels of progesterone metabolites in morning and evening fecal samples respectively 34,86 – 933,04 ng/gr dry feces and 29,36 – 1423,60 ng/gr dry feces. These variations are caused by environmental temperature and daily climate factors. The result of statistical analytic indicates that there is no significant difference ($p > 0,05$) between the average levels of progesterone metabolites in feces collected in the morning and evening.

Keywords : feces, progesterone, lactating dairy cows, collection time.