

INTISARI

PENGUKURAN KADAR PROGESTERON DALAM SAMPEL FESES DAN SUSU SAPI PERAH UP2KH

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Hormon progesteron dapat digunakan sebagai indikator pemeriksaan kebuntingan, status reproduksi dan aktivitas ovarium pasca partus. Analisis kadar hormon progesteron dapat dilakukan dengan teknik invasif maupun non invasif. Pengambilan sampel menggunakan teknik non-invasif menggunakan sampel susu dan feses merupakan metode yang efektif karena hewan tidak mengalami stress saat proses pengambilan sampel. Penelitian ini bertujuan untuk mengukur kadar progesteron susu dan feses sapi perah laktasi pada pagi hari. Pada penelitian ini menggunakan sampel susu dan feses sapi perah FH laktasi berumur 2 tahun yang dipelihara di UP2KH Fakultas Kedokteran Hewan UGM. Sampel feses dikeringbekukan selama 72 jam dalam suhu -80°C , kemudian diekstraksi menggunakan methanol 80% sedangkan sampel susu disentrifugasi untuk menghilangkan lemak. Kedua sampel tersebut diukur kadar progesteronnya menggunakan kit ELISA. Kadar hormon progesteron susu masa laktasi sebesar 2.36 sampai dengan 64.99 ng/ml sedangkan progesteron feses sebesar 34.86 sampai dengan 933.04 ng/g feses kering. Berdasarkan hasil penelitian dapat disimpulkan bahwa pada masa laktasi kadar progesteron sampel susu sebesar 22.34 ± 6.73 ng/ml dan feses sebesar 182.04 ± 97.65 ng/g feses kering.

Kata kunci : Feses, Progesteron, Sapi perah FH, Susu

ABSTRACT

MEASUREMENT OF PROGESTERONE LEVELS IN MILK AND FECES SAMPLES FROM DAIRY CATTLE UP2KH

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Progesterone is a hormone that can be used as an indicator to determine pregnancy, reproduction status, and ovary activity postpartum. Analysis of progesterone levels can be done through invasive or non-invasive techniques. Non-invasive sampling by collecting milk and feces is considered an effective method since the animal will not experience stress during sample collection. The aim of this research is to measure progesterone levels in milk and feces of dairy cows collected in the morning by using the ELISA technique. The cows that were used in this research are two years old FH dairy cows that are raised in UP2KH, Faculty of Veterinary Medicine, UGM. Fecal samples were freeze-dried for 72 hours at -80°C after which the samples were extracted using 80% methanol. The milk samples were centrifuged to remove the fat before the analysis. Progesterone levels of both samples were analyzed using ELISA KIT. The progesterone level in the milk during the lactation period is around 2.36 until 64.99 ng/ml and 34.86 until 933.04 ng/g in the feces. According to the results, it can be concluded that the average progesterone level in milk samples is around 22.34 ± 6.73 ng/ml and around 182.04 ± 97.65 ng/g in the feces.

Keyword : Feces, Progesterone, FH dairy cattle, milk