

KAJIAN DIAMETER KORPUS LUTEUM, KETEBALAN ENDOMETRIUM DAN KADAR PROGESTERON TERHADAP KESIAPAN RESIPIEN SAPI POTONG PO DAN CROSSBREAD

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INTISARI

Salah satu faktor keberhasilan implantasi embrio dalam aplikasi teknologi reproduksi untuk menghasilkan kebuntingan adalah kesiapan resipien. Sapi resipien di Indonesia saat ini terdiri dari sapi PO dan sapi *crossbreed*. Data fisiologis standar resipien sapi PO dan *crossbreed* tersebut belum pernah dikaji. Penelitian ini dilaksanakan dengan tujuan melihat diameter korpus luteum dan ketebalan endometrium pada *breed* lokal, usia, paritas dan kondisi *body condition score* (BCS) berbeda dan pengaruhnya terhadap kadar progesteron dan untuk mengetahui standar ukuran korpus luteum, ketebalan endometrium dan kadar progesteron sapi potong PO dan *crossbreed*. Penelitian pendahuluan dilakukan untuk memperoleh data umum dan reproduksi sapi dengan melakukan seleksi awal dari anamnesa, wawancara peternak dan pemeriksaan per rektal untuk mengetahui umur, BCS, paritas dan status reproduksi. Sapi terseleksi dengan status reproduksi yang normal dan bersiklus diperiksa secara per rektal dan *ultrasonography*(USG) untuk mengukur diameter korpus luteum dan ketebalan endometrium. Sampel darah pada hari ke 7 dari siklus estrus diambil untuk mengetahui kadar hormon progesteron. Hasil pengamatan dianalisis dan dibandingkan secara deskriptif dan disajikan dalam bentuk rata-rata dan simpangan baku. Dari 15 sapi potong yang terdiri dari 9 sapi PO dan 6 sapi *crossbreed* didapatkan hasil bahwa ketebalan endometrium adalah faktor yang memiliki korelasi positif terhadap kadar progesteron. Kadar progesteron tertinggi pada *crossbreed* 12,9 ng/ml menghasilkan ketebalan endometrium 9 mm dan kadar progesteron tertinggi pada sapi PO 13,8 ng/ml menghasilkan ketebalan endometrium 5 mm. Standar optimal sapi potong dengan kadar progesteron terbaik resipien sapi potong PO dan *crossbreed* adalah sapi dengan ketebalan endometrium > 6 mm, umur ≤ 5 th dan paritas ≤ 2 x beranak.

Kata Kunci : Resipien sapi potong, ketebalan endometrium, korpus luteum, progesteron

**STUDY OF KORPUS LUTEUM DIAMETER, ENDOMETRIAL
THICKNESS AND PROGESTERONE LEVEL IN READINESS OF PO
AND CROSSBREED CATTLE AS RECIPIENT**

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ABSTRACT

One important factor in the succesful of embryo implantation in the application of technology reproduction is readiness of the recipient. In Indonesia there was two local breed of cattle as recipient PO and crossbreed PO. No studied before about normal physiology data of this breed for standard recipients selection. This research was conducted with the aim of seeing the diameter of the Korpus Luteum and endometrial thickness on local breeds, age, parity and body condition score (BCS) in different conditions and their effects on the plasma levels of progesterone and to determine the best standard size of the corpus luteum, endometrium thickness and plasma levels of progesterone. Preliminary research conducted to obtain public data and the reproduction of cattle by conducting preliminary selection of the anamnesis, interview with the farmer to determine the age, BCS, parity and type of cattle and per rectal examination to determine the reproduction status. Selected cattle with normal cyclical have a rectal examination and ultrasonography to measure the diameter of the Korpus Luteum and endometrial thickness. Blood sampling is taken on 7th days of the estrous cycle to determine its effect on the levels of the progesterone levels. Results were analyzed and compared descriptively and presented as mean and standard deviation. Selected cattle that consists of 9 PO and 6 crossbreed showed that the thickness of the endometrium is the factor that had a significant effect on levels of progesterone. Maksimum level progesteron 12,9 ng/ml had 9 mm of endometrial thickness in crossbreed and 13,8 ng/ml maksimum level progesteron produced 5 mm of endometrial thickness. The optimal endometrial thickness for recipient cattle was $>7\text{mm}$, by age was ≤ 5 th and parity ≤ 2 x.

Key Words : Cattle Recipient, endometrium thickness, Korpus Luteum, progesteron