

**PENGARUH PENAMBAHAN IMPLAN PROGESTERON SETELAH
INSEMINASI BUATAN TERHADAP ANGKA KEBUNTINGAN PADA
SAPI PERAH *Frisien Holstein***

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INTISARI

Rendahnya angka kelahiran pada sapi perah kemungkinan disebabkan oleh kematian embrio dini akibat rendahnya progesteron dalam darah. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian implan progesteron setelah inseminasi buatan terhadap angka kebuntingan pada sapi perah.

Dua puluh ekor sapi perah milik kelompok ternak Sedyo Mulyo di Desa Boyong, Kaliurang, digunakan dalam penelitian ini. Sapi-sapi dipilih berdasarkan adanya korpus luteum aktif minimal berukuran 1 x 1 cm sampai 1,5 x 1,5 cm melalui pemeriksaan per rektal. Dua puluh ekor dilakukan sinkronisasi satu kali injeksi dengan PGF₂ α (25 mg, 5 ml of Lutalyse Sterile Solution; Pfizer Animal Health) dan 72 jam sesudahnya dilakukan IB dengan metode *fixed time* IB. Sepuluh ekor sapi tidak diberi implan CIDR-progesteron (kelompok I), sedang sepuluh ekor sisanya diberi CIDR-progesteron sembilan (9) hari pasca IB (kelompok II), kemudian dilakukan pengambilan susu dari hari ke 0 sampai hari ke 30. Untuk mengetahui profil hormon progesteron sampel susu diambil dari dua puluh ekor sapi sebanyak 1 ml yang hari ke 0, 9, 13 dan 30 untuk diuji dengan ELISA.

Hasil penelitian menunjukkan respon estrus dua puluh ekor sapi 100%. Angka kebuntingan kelompok I 50% dan kelompok II 30%. Daya retensi implan CIDR dalam vagina 100%; tidak menyebabkan radang atau luka. Implan CIDR-progesteron mampu meningkatkan kadar progesteron namun tidak berpengaruh dalam meningkatkan angka kebuntingan.

Kata kunci: CIDR-Progesteron, *Frisien Holstein*, Progesteron, PGF₂ α , *Fixed time* IB

EFFECT OF ADDITION OF PROGESTERONE IMPLANTS AFTER ARTIFICIAL INSEMINATION TO DAIRY CATTLE'S (*Frisien Holstein*) RATE OF PREGNANCY

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Abstract

The low efficiency of birth rate from Indonesia's dairy cattle which is one of the consequences of early embryo death which coming of the low level of progesterone in the blood. The aim of the research is to find out more on the effects of the addition of progesterone after artificial insemination in dairy cattle pregnancy.

Twenty dairy cattle belong to the Sedyo Mulyo cattle herd in Boyong Village, Kaliurang has been identified with the minimum size of corpus luteum range of 1 x 1 cm to 1.5 x 1.5 cm through a rectal examination. These 20 dairy cattle were given a synchronized shot with a PGF₂ α (25 mg, 5 ml of Lutalyse Sterile Solution; Pfizer Animal Health) and were treated with artificial insemination (fixed time method) 72 hours after they were given the shot. The first group of cattle (10) were not treated with CIDR-progesterone while the second group of cattle (10) were given CIDR-progesterone 9 days after the artificial insemination, then we took milk samples from the beginning to the 30th day. To find out more about the profile of the progesterone hormones, we took 1 ml of milk samples from all twenty cows on the 0th, 9th, 13th and 30th day to be tested by ELISA.

The results of this research shows that estrus response happened to 100% of the 20 cows. The first group of cattle has a 50% rate of pregnancy while the second group's rate of pregnancy is 30%. Implant retention power in the vagina 100% do not cause any irritation or wound. The CIDR-progesterone implants can increase the level of progesterone but it is yet to increase the pregnancy rate in dairy cattle.

Key words: CIDR-Progesterone, *Frisien Holstein*, early embryo death, PGF₂ α , *fixed time AI*