

PERBANDINGAN RESPON ESTRUS PADA DOMBA EKOR TIPIS YANG DISINKRONISASI DENGAN IMPLAN INTRAVAGINAL SPONGE DAN INJEKSI PGF2 α

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INTISARI

Penelitian ini bertujuan untuk mengetahui perbandingan efektivitas sinkronisasi estrus dengan injeksi PGF2 α dan implan *intravaginal sponge* terhadap respon estrus pada domba ekor tipis. Penelitian dilakukan dengan menggunakan 4 ekor ternak Domba Ekor Tipis (DET) umur sekitar satu tahun, siklus estrus normal. Domba dipelihara dalam kandang individual di UPT Fakultas Peternakan UGM, diberi perlakuan injeksi PGF2 α dan implan *intravaginal sponge*. Injeksi PGF2 α dilakukan sebanyak dua kali, injeksi pertama dan kedua dilakukan dengan selang 11 hari. Mulai hari ke-12 dilakukan pengamatan selama 5 hari berturut-turut terhadap respon estrusnya. Selanjutnya setelah tiga siklus estrus berikutnya, pada domba yang sama, diberi perlakuan implan *intravaginal sponge*. Pemasangan implan *intravaginal sponge* dilakukan selama 12 hari. Pada hari ke-13 *sponge* dilepas, selanjutnya dilakukan pengamatan selama 5 hari berturut turut terhadap respon estrusnya. Pengamatan respon estrus meliputi warna vulva, *oedem* vulva, pelepasan mukus, tingkah laku, pH vagina, dan profil sitologi dari *vaginal smear*. Untuk melihat ada tidaknya respon estrus dengan menggunakan kedua perlakuan, data dianalisis menggunakan *Mann Whitney Test*. Hasil analisis menunjukkan perbedaan nyata ($P < 0,05$) antar kelompok. Hasil rerata onset estrus, durasi estrus, warna vulva, *oedem* vulva, pelepasan mukus, perbandingan tingkah laku saat estrus dan diestrus, nilai pH, dan populasi sel superfisial saat estrus pada kelompok PGF2 α adalah (27,00 \pm 6,00) jam, (36,00 \pm 9,80) jam, (2,50 \pm 0,58), (2,50 \pm 0,58), (2,50 \pm 0,58), (1156,00 \pm 3,37) : (463,50 \pm 3,87), (9,25 \pm 0,50), dan (76,25 \pm 0,96)%, sedangkan pada kelompok *intravaginal sponge* adalah (45,00 \pm 6,00) jam, (21,00 \pm 6,00) jam, (1,25 \pm 0,50), (1,25 \pm 0,50), (1,25 \pm 0,50), (871,50 \pm 3,42) : (452,25 \pm 3,78), (8,00 \pm 0,00), dan (70,50 \pm 3,70)%. Disimpulkan bahwa sinkronisasi estrus dengan metode injeksi PGF2 α lebih efektif dari pada metode implan *intravaginal sponge*.

Kata kunci: Respon Estrus, Domba Ekor Tipis, Sinkronisasi Estrus, PGF2 α , *Intravaginal Sponge*

COMPARISON OF ESTROUS RESPONSE IN THIN TAILED EWES SYNCHRONIZED WITH INTRAVAGINAL SPONGE IMPLANT AND PGF2 α INJECTION

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ABSTRACT

This research was conducted to determine the comparison of effectiveness of estrous synchronization with PGF2 α injection and intravaginal sponge implant on estrous response in thin-tailed ewe. This research were carried out by using 4 thin-tailed ewes with about one year old of age. Ewes were treated with PGF2 α injection and intravaginal sponge implant. PGF2 α injection was carried out twice. The first and second injection were carried out an interval of 11 days. Observations on the estrous responses were made from the 12th day on, for 5 consecutive days. After three cycles of estrous, the same thin-tail ewes were treated with intravaginal sponge implant. On the 13th day the intravaginal sponges were released, observations were made for 5 consecutive days on the estrous responses. Estrous response including reddening of vulva, oedem of vulva, mucus discharge, behavioural changes, pH of vagina, and cytological profile of vaginal smear. Data estrous response were analyzed using Mann Whitney Test. The result show significant different ($P < 0,05$) between PGF2 α and intravaginal sponge. The mean analysis of estrous onset, estrous duration, scoring of vulva reddening, vulva oedem, mucus release, comparasion of behavioural changes between estrous and diestrus, pH value, and population of superficial cell on PGF2 α group were (27.00 \pm 6.00) hours, (36.00 \pm 9.80) hours, (2.50 \pm 0.58), (2.50 \pm 0.58), (2.50 \pm 0.58), (1156.00 \pm 3.37) : (463.50 \pm 3.87), (9.25 \pm 0.50), and (76,25 \pm 0,96)% while in the intravaginal sponge group were (45.00 \pm 6.00) hours, (21.00 \pm 6.00) hours, (1.25 \pm 0.50), (1.25 \pm 0.50), (1.25 \pm 0.50), (871.50 \pm 3.42) : (452.25 \pm 3.78), (8.00 \pm 0.00), and (70,50 \pm 3,70)%. It can be concluded that estrous synchronization with PGF2 α method more effective than intravaginal sponge method.

Keywords: Estrous response, Thin tailed ewe, estrous synchronization, PGF2 α , intravaginal sponge.