

## INTISARI

### PERBANDINGAN PROTOKOL SINKRONISASI ESTRUS MENGGUNAKAN MEDROXY PROGESTERONE ACETATE DAN CONTROLLED INTERNAL DRUG RELEASE (CIDR) PADA DOMBA EKOR TIPIS

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Domba ekor tipis mempunyai permasalahan dengan tidak menunjukkan tanda tanda estrus yang jelas, sehingga menyulitkan pelaksanaan program inseminasi buatan. Penelitian ini bertujuan untuk membandingkan efektivitas penggunaan spon *Medroxy Progesterone Acetate* (MAP) dan *Controlled Internal Drug Release* (CIDR) secara *intra vaginal* untuk sinkronisasi estrus pada domba ekor tipis. Sebanyak 50 ekor domba ekor tipis dengan kriteria sehat, *body condition score* (BCS) 3, domba dara dengan umur 10-12 bulan, ambing normal dan simetris dibagi secara acak menjadi dua kelompok. Kelompok pertama 25 ekor domba dilakukan sinkronisasi estrus dengan CIDR secara *intra vaginal* selama 14 hari. Kelompok kedua 25 ekor domba dilakukan sinkronisasi estrus dengan spon yang berisi MAP 60 Mg selama 14 hari. Kedua kelompok diberi perlakuan penambahan mineral Zn secara oral setiap dua hari sekali. Pengamatan estrus dilakukan dimulai setelah pencabutan sampai 48 jam dengan interval selama 6 jam. Pengamatan estrus dilakukan dengan pengamatan visual didasarkan atas perubahan fisik pada vulva, lendir, dan tingkah laku estrus. Parameter yang diamati meliputi tingkat retensi, respon estrus, kualitas estrus, onset estrus, dan durasi estrus. Data yang telah diperoleh dilakukan analisis menggunakan metode independent sample *T-test* dan *Chi Square* pada SPSS 26.0. Pembahasan hasil pengamatan dijelaskan secara deskriptif. Hasil rerata penelitian pada tingkat retensi, respon estrus, tanda visual berupa vulva bengkak, warna vulva, keberadaan lendir, perubahan tingkah laku, kualitas estrus, onset estrus dan durasi estrus pada perlakuan CIDR dan spon progesteron yaitu 92 % dan 80%, 100% dan 100%,  $2,84\pm 0,37$  dan  $2,92\pm 0,27$ ,  $2,76\pm 0,43$  dan  $2,84\pm 0,37$ ,  $2,60\pm 0,50$  dan  $2,56\pm 0,50$ , 0% dan 0%,  $1,76\pm 0,43$  dan  $1,84\pm 0,37$ ,  $6,72\pm 1,98$  dan  $6,00\pm 0,00$ ,  $41,28\pm 1,98$  dan  $41,52\pm 1,66$ . Berdasarkan hasil penelitian ini dapat disimpulkan bahwa penggunaan CIDR dan spons MAP pada domba ekor tipis menunjukkan hasil yang sebanding dalam hal tingkat retensi, respons estrus, tanda-tanda visual estrus, kualitas estrus, onset, dan durasi estrus. Berdasarkan temuan ini, baik CIDR 0,3 gr maupun spons progesteron MAP 60 mg yang diberikan selama 14 hari dapat dianggap sebagai metode yang sama-sama efektif dalam program sinkronisasi estrus pada domba ekor tipis.

**Kata kunci:** CIDR, spon progesteron, MAP, Zn, Pengamatan estrus

## ABSTRACT

### COMPARISON OF ESTRUS SYNCHRONIZATION PROTOCOL USING MEDROXY PROGESTERONE ACETATE AND CONTROLLED INTERNAL DRUG RELEASE (CIDR) IN THIN-TAILED SHEEP

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Thin-tailed sheep often present challenges in reproductive management due to the lack of clear estrus signs, which complicates the implementation of artificial insemination programs. This study aimed to compare the effectiveness of two intra-vaginal synchronization methods Medroxy Progesterone Acetate (MAP) sponges and Controlled Internal Drug Release (CIDR) devices in inducing estrus in thin-tailed sheep. A total of fifty clinically healthy ewe lambs, aged 10 to 12 months, with a body condition score (BCS) of 3, normal and symmetrical udders, were randomly assigned to two equal groups. The first group, received intravaginal CIDR for 14 days, while the second group was treated with 60 mg MAP progesterone sponges for the same period. To support the synchronization protocol both groups received oral zinc supplementation every two days. Estrus observation performed visually every six hours for 48 hours following device removal, focusing on physical changes such as vulvar swelling, color, mucus discharge, and behavioral signs of estrus. Parameters evaluated included retention rate, estrus response, estrus quality, onset of estrus, and estrus duration. The collected data were analyzed using Independent Sample T-Test and Chi-Square tests via SPSS version 26.0, with descriptive interpretation provided for all observations. The results for retention rate, estrus response, visual signs such as vulvar swelling, vulva color, presence of mucus, behavioral changes, as well as estrus quality, onset, and duration in the CIDR and MAP sponge treatment groups were as follows, respectively: 92% and 80% (retention rate), 100% and 100% (estrus response),  $2.84 \pm 0.37$  and  $2.92 \pm 0.27$  (vulvar swelling),  $2.76 \pm 0.43$  and  $2.84 \pm 0.37$  (vulva color),  $2.60 \pm 0.50$  and  $2.56 \pm 0.50$  (mucus presence), 0% and 0% (behavioral changes),  $1.76 \pm 0.43$  and  $1.84 \pm 0.37$  (estrus quality),  $6.72 \pm 1.98$  and  $6.00 \pm 0.00$  hours (estrus onset), and  $41.28 \pm 1.98$  and  $41.52 \pm 1.66$  hours (estrus duration). The study concluded that the use of CIDR and MAP sponge treatments in thin-tailed sheep resulted in comparable outcomes in terms of retention rate, estrus response, visual signs of estrus, estrus quality, onset, and duration. Based on these findings, both 0.3 g CIDR and 60 mg MAP progesterone sponges, administered for 14 days, can be considered equally effective options for estrus synchronization in thin-tailed sheep.

**Keywords:** *CIDR, sponge progesterone, MAP, Zn, Estrus observation*