

PERBANDINGAN RESPON ESTRUS DOMBA EKOR TIPIS YANG DISINKRONISASI DENGAN *INTRAVAGINAL SPONGES* DAN *CONTROLLED INTERNAL DRUG RELEASE RE-USE*

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INTISARI

Penelitian ini bertujuan untuk mengetahui perbandingan respon estrus Domba Ekor Tipis (DET) yang disinkronisasi dengan *intravaginal sponges* dan *controlled internal drug release re-use*. Empat ekor DET dengan umur lebih dari satu tahun dan belum pernah melahirkan dipelihara dengan sistem intensif. Domba diberi pakan konsentrat pada pagi hari dan hijauan pada sore hari. Domba diimplan dengan *intravaginal sponges* selama 12 hari dan CIDR *re-use* selama 13 hari. Gejala estrus diamati 7 hari berturut-turut setelah pelepasan implan. Data yang dikaji meliputi warna vulva, pembengkakan vulva, mukus vulva, jumlah langkah, nilai pH vagina, *onset*, dan durasi estrus. Data warna vulva, pembengkakan vulva, dan mukus vulva dianalisis menggunakan *Paired Sample T-Test*. Jumlah langkah, nilai pH, *onset*, dan durasi estrus dianalisis menggunakan *Mann-Whitney Test*. Hasil menunjukkan perbedaan nyata ($P < 0,05$) pada warna vulva, pembengkakan vulva, jumlah langkah, nilai pH, *onset* dan durasi estrus. Hasil menunjukkan perbedaan tidak nyata ($P > 0,05$) pada mukus vulva. Rerata hasil analisis implan *sponges intravaginal* dan CIDR *re-use* untuk warna vulva yaitu $2,25 \pm 0,50$ dan $3,5 \pm 0,58$, pembengkakan vulva $2,00 \pm 0,00$ dan $3,0 \pm 0,82$, pelepasan mukus $2,25 \pm 0,50$ dan $3,25 \pm 0,96$. Rerata jumlah langkah perlakuan *intravaginal sponges* saat diestrus yaitu $453,67 \pm 4,51$ langkah dan saat estrus $872,00 \pm 4,00$ langkah. Rerata jumlah langkah perlakuan CIDR *re-use* saat diestrus yaitu $565,64 \pm 35,34$ langkah dan saat estrus $1030 \pm 30,92$ langkah. Rerata nilai pH yaitu $8,00 \pm 0,00$ dan $8,83 \pm 0,24$. Rerata durasi estrus $21,00 \pm 6,00$ jam dan $36,00 \pm 0,00$ jam. Rerata *onset* estrus $45,00 \pm 6,00$ jam dan $24,00 \pm 0,00$ jam. Hasil tersebut diklarifikasi dengan pengamatan sitologi vagina dan pola *ferning* saliva. Disimpulkan bahwa sinkronisasi estrus menggunakan CIDR *re-use* lebih baik dibandingkan *intravaginal sponges*.

Kata Kunci: Sinkronisasi estrus, CIDR *re-use*, *intravaginal sponges*, *onset* estrus, durasi estrus.

COMPARISON OF THIN-TAILED EWE ESTRUS RESPONSE SYNCHRONIZED WITH INTRAVAGINAL SPONGES AND CONTROLLED INTERNAL DRUG RELEASE RE-USE

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ABSTRACT

This study aimed to determine the comparison between estrus response of thin-tailed ewe (DET) synchronized in intravaginal sponge and controlled internal drug release re-use. The age of four thin-tailed were more than one year old and never been given birth and reared in an intensive system. The thin-tailed ewe were fed concentrate feed in the morning and forage in the afternoon. The thin-tailed ewe were implanted with intravaginal sponge for 12 days and CIDR *re-use* for 13 days. Estrus symptoms were observed in 7 consecutive days after implant removal. Data studied were vulvar color, vulvar swelling, vulvar mucus, number of steps, vaginal pH value, onset, and estrus duration. Data of vulvar color, vulvar swelling, and vulvar mucus were analyzed by using Paired Sample T-Test, while number of steps, pH value, onset, and estrus duration were analyzed by using Mann-Whitney Test. The results showed significant differences ($P < 0.05$) in vulvar color, vulvar swelling, number of steps, pH value, onset, and estrus duration. The results showed no significant differences ($P > 0.05$) in vulvar mucus. The mean results of intravaginal sponge's implant and CIDR *re-use* for vulvar color were 2.25 ± 0.50 and 3.50 ± 0.58 , vulvar swelling 2.00 ± 0.00 and 3.00 ± 0.82 , vulvar mucus 2.25 ± 0.50 and 3.25 ± 0.96 . The mean number of steps for intravaginal sponges treatment when diestrus was 453.67 ± 4.51 steps and 872.00 ± 4.00 steps at estrus. The mean number of CIDR *re-use* treatment steps when diestrus was 565.64 ± 35.34 steps and 1030 ± 30.92 steps at estrus. The mean pH values were 8.00 ± 0.00 and 8.83 ± 0.24 . The mean of estrus duration was 21.00 ± 6.00 hours and 36.00 ± 0.00 hours. The mean onset of estrus was 45.00 ± 6.00 hours and 24.00 ± 0.00 hours. The results were clarified by observing vaginal cytology and salivary ferning patterns. The conclusion was estrus synchronization by using CIDR *re-use* better than intravaginal sponges.

Keywords: Estrus synchronization, CIDR *re-use*, intravaginal sponge, *onset* of estrus, estrus duration