

PROFIL HORMON ESTROGEN DAN RESPON ESTRUS DOMBA EKOR TIPIS YANG DISINKRONISASI DENGAN IMPLAN *CONTROLLED INTERNAL DRUG RELEASE*

Seraphina Kumala

16/399182/PT/07300

INTISARI

Penelitian ini dilakukan untuk mengetahui profil hormon estrogen dan respon estrus domba ekor tipis yang disinkronisasi dengan implan CIDR. Penelitian dilakukan dengan menggunakan 8 ekor induk domba ekor tipis dengan umur di atas 1 tahun, CIDR (Zoetis, New Zealand) dan kit hormon estrogen (DRG, Jerman). Domba dibagi menjadi dua kelompok perlakuan: kelompok kontrol (tidak dipasang CIDR) dan kelompok CIDR (dipasang CIDR selama 12 hari) yang dipelihara di Kelompok Ternak Sidomukti, Sleman, Yogyakarta. Data yang diperoleh adalah profil hormon estrogen dan respon estrus. Analisis hormon estrogen dilakukan dengan metode ELISA pada fase estrus. Pengamatan respon estrus berdasarkan pengamatan visual meliputi warna vulva, *oedem vulva*, pelepasan mukus, tingkah laku, pH vagina dan populasi sel *superficial* yang diamati pada saat estrus. Data yang diperoleh kemudian dianalisis dengan *Independent Sample T-Test*. Hasil tidak menunjukkan perbedaan nyata ($P > 0,05$) antara kelompok kontrol dan kelompok CIDR pada profil hormon estrogen, respon estrus dan nilai pH yang berada dalam kisaran normal. Sedangkan hasil menunjukkan perbedaan yang nyata dengan korelasi positif ($P < 0,05$) pada pengamatan sitologi vagina untuk populasi sel *superficial*. Rerata hasil analisis antara kelompok kontrol dan perlakuan CIDR profil hormon estrogen adalah $(42,63 \pm 8,17)$ dan $(49,00 \pm 9,32)$, hasil rerata respon estrus adalah $(2,07 \pm 0,42)$ dan $(2,32 \pm 0,41)$, hasil rerata nilai pH $(9,00 \pm 0,50)$ dan $(9,50 \pm 1,00)$ serta hasil rerata populasi sel *superficial* $(65,33 \pm 25,38)$ dan $(71,20 \pm 4,32)$. Disimpulkan bahwa CIDR efektif digunakan sebagai preparat sinkronisasi estrus pada kelompok ternak. CIDR memberikan respon estrus positif dalam kisaran normal terhadap domba ekor tipis betina dengan profil hormon estrogen, nilai pH dan persentase sel *superficial* pada kisaran normal.

Kata Kunci: Profil Hormon Estrogen, Respon Estrus, Domba, Sinkronisasi,
CIDR

ESTROGEN HORMONE PROFILE AND ESTROUS RESPONSE THIN TAILED SHEEP THAT ARE SYNCHRONIZED USING CONTROLLED INTERNAL DRUG RELEASE IMPLANTS

Seraphina Kumala

16/399182/PT/07300

ABSTRACT

This research was conducted to understand estrogen hormone profile and estrous response in synchronized thin tailed ewe using CIDR implant. This research were carried out by using 8 thin tailed ewe which already more than 1 years old, CIDR (Zoetis, New Zealand), and estrogen kit (DRG, Germany). The ewe were divided into two group: control group (no CIDR were implanted) and CIDR group (were implanted for 12 days) which kept in Sidomukti farm team, Sleman Regency, Yogyakarta. The obtained data were estrogen hormone profile and estrous response. Estrogen hormone analysis were carried out using ELISA method in estrous phase. Estrous response observation was based visual observation on reddening of vulva, oedem of vulva, mucus discharge, behavioural changes, pH of vagina and superficial cells population that were observed during estrous time. The data were analyzed by Independent Sample T-Test. The result didn't show significant different ($P>0,05$) between control group and CIDR group in estrogen hormone profile, estrous response, and pH value in normal range. Meanwhile the result show significant different with positive correlation ($P<0,05$) in observation of vaginal cytology for population of superficial cells. The result of data analysis between control group and CIDR treatment group of estrogen hormone profile were $(42,63\pm 8,17)$ and $(49,00\pm 9,32)$, the result of estrous response were $(2,07\pm 0,42)$ and $(2,32\pm 0,41)$, the result of pH level were $(9,00\pm 0,50)$ and $(9,50\pm 1,00)$ also the result of superficial cell population were $(65,33\pm 25,38)$ and $(71,20\pm 4,32)$. It was concluded that CIDR was effective tool for estrous synchronization at farm team. CIDR gave positive estrous response in normal range towards thin tailed ewes on estrogen hormone profile, pH level and superficial cells percentage also in normal range.

Keywords: Estrogen Hormone Profile, Estrous Response, Ewe, Synchronization, CIDR