

**Example:**

**Oestrus Synchronisation of Dorper Cross Ewes Using Intravaginal Pessary FGA and Different Oestradiol Benzoate Doses**

**Hazlinda, H.<sup>1</sup>, Yaakub, H.<sup>1\*</sup>, Panandam, J. M.<sup>2</sup>, Salleh, S. M.<sup>1</sup> & S. Mohd Nasir<sup>3</sup>**

<sup>1</sup>Department of Animal Science, Faculty of Agriculture, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor;

<sup>2</sup>Ecotone Worldwide Sdn. Bhd., Suite 912, Block A, Kelana Centre Point, 3 Jalan SS 7/19, Kelana Jaya, 47301 Petaling Jaya, Selangor D.E., Malaysia;

<sup>3</sup>Sumobek Farm, Padang Ragut Kampung Juasseh Seberang, 72000 Kuala Pilah, Negeri Sembilan

\*Email: hali@upm.edu.my

Oestrus synchronisation (OS) is used to manipulate oestrous cycle in female animals. The different OS protocols may produce different results due to differences in breed, size or age of animals and in the route and the interval of hormone administration may affect the OS which subsequently would influence the fertility of female animals. The application of fluorogestone acetate (FGA) pessary together with frequent use of eCG may cause the development of anti-eCG antibodies may occur particularly in ewes. Thus, this study was conducted evaluate the oestrus response of Dorper cross ewes synchronised with FGA pessary together with different doses of OB. Thirty four non-pregnant ewes, ages between 2 to 4 years and with body weight range between 20 to 40 kg were received intravaginal FGA pessaries for seven days, and prostaglandins (PG: 1 ml of 250 µg/ml cloprostenol) on day 6 post pessary insertion. On day of pessary withdrawal, the ewes were randomly assigned to receive one of the following treatments (i.m.): Control (CO) - 1 ml Corn Oil, low dose of OB (LOB) - 1 ml of 0.05 mg/ml OB, and high dose of OB (HOB) - 1 ml of 0.25 mg/ml OB. At 24 h post pessary withdrawal, four fertile rams were alternately released into each group of ewes for 30 min at 4 h intervals until 72 h post OB administration to detect oestrus and allow them to mate. Oestrus incidence (no. of ewes that exhibited oestrus) was significantly ( $p < 0.05$ ) higher in LOB and HOB groups compared to CO group. However, there was no significant ( $p > 0.05$ ) differences between treatment groups on time of onset of oestrus. Some ewes in CO group ( $32 \pm 4.62$ h) had longer interval to onset of oestrus compared to LOB ( $24 \pm 0.0$ h) and HOB ( $27 \pm 1.98$ h) groups. The ewes that received OB showed tighter oestrus within 36h after pessary removal. In addition, 100% and 91% of the ewes in LOB and HOB groups, respectively, exhibited oestrus. In conclusion, the synchronisation protocols of Dorper ewes using FGA together with oestradiol benzoate with either low or high dose showed better oestrus response compared to use of FGA alone.