



014 TAI/FTET/AI

### **Short-term alternative protocols for synchronized induction of estrus in dairy goats: preliminary results**

**Jennifer Hauschildt Dias<sup>1</sup>, Cleber Jonas Carvalho de Paula<sup>2</sup>,  
Joanna Maria Gonçalves Souza-Fabjan<sup>2</sup>, Aline Matos Arrais<sup>3</sup>, Gilmar Pereira Alvim<sup>4</sup>,  
Jeferson Ferreira da Fonseca<sup>5</sup>**

<sup>1</sup>UFV - Universidade Federal de Viçosa, Viçosa, MG, Brasil; <sup>2</sup>UFF - Universidade Federal Fluminense, Niterói, RJ, Brasil; <sup>3</sup>UFRRJ - Universidade Federal Rural do Rio de Janeiro, Seropédica, Rio de Janeiro, Brasil; <sup>4</sup>EMBRAPA - EMPRAPA Gado de Leite, Coronel Pacheco, MG, Brasil; <sup>5</sup>EMBRAPA - EMPRAPA Caprinos e Ovinos, Coronel Pacheco, MG, Brasil.

In order to increase productivity and allow genetic improvement of Brazilian dairy goats, the use of estrus induction protocols associated with fixed time artificial insemination (FTAI) has great importance. However, for FTAI success, a great estrus synchrony is necessary. This study aimed to assess the efficiency of a classic protocol of estrus induction of six days of duration (Fonseca et al. *Reprod. Biol.* 17: 268-73, 2017) and an alternative protocol increasing the duration of the protocol by 12 h. A total of 19 pluriparous Saanen goats with mean body condition score of  $3.3 \pm 0.12$  were submitted to one of two treatments. All goats received 60 mg of medroxyprogesterone acetate sponges (MAP, Progespon®, Zoetis, Brazil) for 6 d (G6; n = 9) or 6.5 d (G6.5; n = 10). At 24 (G6) and 36 h (G6.5) before sponge removal, 30 µg of d-cloprostenol i.m. (Prolise®, Agener União, Brazil) and 200 IU of eCG i.m. (Novormon®, Zoetis, Brazil) were administered. Estrus detection was performed twice daily aided by teaser males and goats were artificially inseminated with frozen-thawed semen by transcervical via 24 h after the onset of estrus. Pregnancy diagnosis was performed 45 days after sponge removal. The data are presented in a descriptive way. The estrus response rate was 100% in both groups. The interval from sponge removal to estrus onset was  $30.6 \pm 6.3$  h and  $36 \pm 0$  h for the G6 and G6.5 group, respectively. After sponge removal, four and six goats started estrus at 24 and 36 h, respectively, for G6 group, while all animals from G6.5 group started estrus at 36 h. The pregnancy rate was 88.9% (8/9) in G6 and 70.0% (7/10) in the G6.5 group, with a total pregnancy rate of 78.9% (15/19). These preliminary results pointed to two efficient synchronous estrus induction protocols resulting in elevated pregnancy rates in goats. Both protocols are also associated to less time consuming related to estrus detection. The fact that 100% of animals started estrus at the same time in G6.5 animals appeared to be very interesting for FTAI, but this must be confirmed in larger trial study. Financial support: Embrapa (02.13.06.026.00.04) and Fapemig (CVZ-PPM 00201-17).