

Estrus activity in Boer goats submitted to two estrus synchronization treatments in semi-arid of Northeastern Brazil

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Abstract

Resumo:

An efficient artificial insemination program requires the use of estrus synchronization treatments that assure acceptable pregnancy rates with very low variation in the response between flocks. The objective of the present study was to evaluate the estrus activity of Boer goats submitted to long and short-term synchronization treatments in the semi-arid region of Northeastern Brazil. Forty-two Boer goats were homogeneous allocated and submitted to two estrus synchronization treatments. First, 6-days protocol (n=21): vaginal sponge containing 60 mg medroxyprogesterone acetate (MAP) for 6 days. At moment of sponge insertion (day 0), it was administrated 75 ug cloprostenol and, at the sponge's withdrawal (day 6), 300 UI equine chorionic gonadotrophin (eCG). Second, 11-days protocol (n=21): the same hormones and doses were used for the first treatment, but sponges were maintained for 11 days and 48 h before sponge removal (day 9) was administered d-cloprostenol and eCG. Percentages of animals in estrus did not differ ($P>0.05$) between 6-days (90.5%) and 11-days protocols (95.2%). In addition, interval from sponge removal and the onset of estrus did not differ between protocols (19.4 „b 5.4 h vs. 19.8 „b 11.4 h). The hormonal treatments showed a short dispersion and, therefore, a strong synchrony for the exhibition estrus, because 87.2% of goats had already exhibit signs of estrus within 24 h after sponge removal. However, it was found significant difference ($P < 0.05$) in the duration of estrus between 6-days (48.0 „b 10.7 h) and 11-days protocols (33.0 „b 12.1 h). One possible explanation for this is the greater progesterone levels at the sponge removal in 6-days protocol. Six days protocol showed as effective as 11 days protocol for estrus synchronization in Boer goats. The great synchrony of estrus shows that both protocols can be used for fixed time artificial inseminations.

Keywords: Goat, hormonal treatment, protocols, reproduction