

PROGESTAGEN TREATMENT ASSOCIATED WITH DIFFERENT DOSES OF eCG TO ADVANCE THE BREEDING SEASON IN CHURRA GALEGA BRAGANÇANA EWES

R Valentim¹, J Azevedo², A Mendonça³, P Fontes², L Galvão³, M Cardoso¹, H Velasco¹, R Maurício¹, T Correia³

1 - ESA – Polytechnic Institute of Bragança. Campus de Sta Apolónia, PO Box 1172, 5301-854 Bragança – Portugal

2 - CECAV – University of Trás-os-Montes and Alto Douro. Quinta dos Prados, PO Box 1013, 5001-801 Vila Real – Portugal

3 - CIMO – Polytechnic Institute of Bragança. Campus de Sta Apolónia, PO Box 1172, 5301-854 Bragança – Portugal

INTRODUCTION

One month advance of the natural breeding season in Churra Galega Bragançana ewes result in higher profitability since lambs can be sell for Christmas. Progestagens and eCG (equine Chorionic Gonadotrophin) treatments may be used to disrupt seasonal anoestrus in Mediterranean ewes. The current study aims to assess the effects of a long-term progestagen treatment associated with different doses of eCG to advance the breeding season in Portuguese Churra Galega Bragançana ewes.

MATERIALS AND METHODS

Date: Mid May (1 month prior to the breeding season).

Location: Bragança – Portugal (latitude 41° 19' N, longitude 6° 40' W, altitude 720 meters).

Animals: 41 Churra Galega Bragançana ewes (2 were later rejected) – 2 to 7 years old.

Treatment:

- 20 mg of Fluorogestone Acetate (FGA) for 12 days (intravaginal sponge);
- Administration of eCG at sponge withdraw:
 - 500 UI (n = 18);
 - 750 UI (n = 21).

Oestrus detection: 4 intact rams with harness marker.

Ovarian activity assessment:

- Blood samples for progesterone (P_4) determinations:
 - twice a week for two weeks before sponge insertion;
 - daily for 5 days after eCG injection.
- Transrectal ultrasound scanning for pregnancy diagnosis (41days after eCG administration).

RESULTS

TABLE I – Reproductive response of Churra Galega Bragançana ewes depending on the eCG dosis

Parameters	500 UI	750 UI
Ewes in estrus (%)	94.4% ^a	100.0% ^b
“Ovulated” ewes (%) ($P_4 > 0.5$ ng/ml)	88.9% ^a	90.5% ^a
Pregnancy rate	61.1% ^a	81.0% ^c
Fertility rate	61.1% ^a	76.2% ^b
Prolificacy rate	1.5 ^a ± 0.8	1.7 ^a ± 0.6

a = a, for $P > 0.05$; a ≠ b, for $P < 0.05$; a ≠ c, for $P < 0.01$.

CONCLUSION

Long-term FGA treatment may be used to advance the breeding season in Churra Galega Bragançana ewes and the reproductive response depends on the eCG dose.