

# TRENBOLONE ACETATE/OESTRADIOL AS A WET SEASON GROWTH PROMOTANT FOR STEERS ON LOW QUALITY NATIVE PASTURE

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Neither anabolics or ionophores have demonstrated much benefit to the extensively managed herds of the semi-arid rangelands of northern Australia (Moran 1972). The anabolic agent, trenbolone acetate, appears to increase metabolic efficiency by reducing the rate of tissue protein breakdown (Hunter and Magner 1990). This trial was designed to test the effect of implantation with 140 mg trenbolone acetate and 28 mg oestradiol-17P (Revalor, Roussel Uclaf Australia Ltd) on steer growth on native pasture over 1 wet season, and to assess the financial implications of its use under present market conditions.

The trial was conducted at Kidman Springs in the Victoria River District. Seventy 9-15 month-old Brahman cross steers, with an average liveweight of 161.2 kg, were implanted in December 1990 just before the start of the wet season. Seventy-four similar steers (liveweight 160.8 kg) formed an untreated control. The 2 groups grazed together in a 20 km<sup>2</sup> paddock dominated by black spear grass *Heteropogon contortus*, ribbon grass *Chrysopogon fallax*, wiregrasses *Aristida* spp. and curly spinifex *Plectrachne pungens* on sandy emu red soils. The steers received mineral supplements (averaging 3.3 g N/day and 3.3 g P/day) until vehicle access became impossible in March.

Between early December and the end of March 786 mm of rain fell. This was higher than the average of 683 mm but fell over a shorter period.

The steers were weighed at the beginning (December), middle (March) and end (June) of the trial. The average final weight of the treated group was 290.4 kg (s.e. 6.52) while that of the control was 271.7 kg (s.e. 5.85). (Table 1).

**Table 1. Mean changes in liveweight (kg and kg/day) between December and March, March and June and for the whole period**

Period	Treated	Control	Average s.e.m.	Treatment advantage
December-March				
Total gain (kg)	68.5	64.6		3.9
kg/day	0.75	0.71	0.15	6%
March-June				
Total gain (kg)	60.7	46.3		14.4 **
kg/day	0.66	0.50	0.14	31% **
Overall gain				
Total gain (kg)	129.2	110.9		18.3**
kg/day	0.71	0.61	0.11	16%**
**P<0.01.				

The steers entered the trial at the end of a severe dry season and it is suggested that the low treatment response in the first half of the wet season is attributable to the dominant effect of compensatory growth.

The 2 main markets for steers from the Victoria River District are local export abattoirs and live export to South East Asia. Carcasses treated with anabolics are ineligible for the EEC and therefore attract a penalty at the abattoir of about 10c/kg. On this basis, for animals sold to the abattoir in June 1991, treatment would have resulted in a net loss of \$1.69 per head. Treated animals sold to live export would have made a net gain of \$13.98 per head. Use of this growth promotant therefore decreases market flexibility, but could substantially benefit producers aiming primarily at supplying the live export market.

HUNTER, R. A. and MAGNER, T. (1990). *J. Agric. Sci., Camb.* **114**: 55-8.

MORAN, J. B. (1972). *Aust. J. Exp. Agric. and Anim. Husb.* **12**: 345-47.