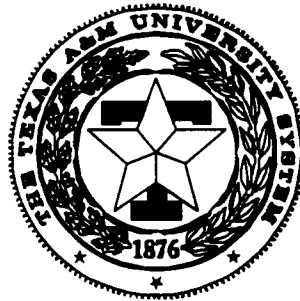


FORAGE-LIVESTOCK FIELD DAY REPORT - 1998

TEXAS A&M UNIVERSITY AGRICULTURAL RESEARCH and EXTENSION CENTER at OVERTON

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ALTERATIONS IN ANTLER AND TESTIS GROWTH IN FALLOW BUCKS IMPLANTED WITH RALGRO® AS WEANLINGS

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Background. Intact male fallow deer being grown to slaughter weight present management problems due to hard antlers and aggressive behavior. By the time fallow bucks reach slaughter weights in the fall, they have entered the rut and fighting can cause either carcass damage or death. Antler development and aggressive behavior in fallow bucks are controlled by seasonal development of the testis. Ralgro® implants have been found to suppress testicular development and aggression in bulls without altering growth traits. The objectives of this experiment were to determine the effects of Ralgro® implants on growth rate, antler development and testis size in growing fallow bucks.

Research Findings. Twenty weanling fallow bucks were randomly assigned (n=10) to a control group or to receive 12 mg Ralgro® implants (Ralgro® for feedlot lambs, Pitman-Moore, Inc., Mundelein, IL) on Nov. 12, 1996, Jan. 30, 1997, April 24, 1997 and July 11, 1997. Body weights were recorded at implant insertion and at 28 day intervals until slaughter Sept. 21, 1997. Antler length was recorded and hard antlers removed Aug. 12, 1997. Total body weight gain was 25.0 ± 1 kg for control bucks compared with 24.6 ± 1.1 kg for Ralgro® treated bucks. Average daily gains were therefore similar between treatments (Table 1). Antler growth was decreased ($P < .0001$) in Ralgro® treated bucks (Table 2) and hard antler removed was also decreased ($P < .0001$) in Ralgro® treated bucks compared with controls (Table 3). Paired testis weights were reduced ($P < .0001$) in Ralgro® treated bucks compared with controls (Table 4). Dressing percentage was not affected by treatment (Table 4).

Application. Treatment of weanling fallow bucks with Ralgro® implants throughout the growing period can eliminate cutting hard antlers from yearling fallow bucks produced for venison, without reducing weight gain or carcass weight. Aggression can be reduced as testis development is delayed and the rut is less intense.

Table 1. Effect of Ralgro® on body weight gain (kg \pm SE) and average daily gain (g \pm SE) in fallow bucks.

	Control	Ralgro	Probability
Body weight gain	25.0 ± 1.0	24.6 ± 1.1	$P > .10$
Average daily gain	84 ± 3	83 ± 4	$P > .10$

Table 2. Effect of Ralgro® on antler growth (cm ± SE) in fallow bucks.

Antler	Control	Ralgro®	Probability
Right	14.8 ± .9	5.6 ± 1.0	P < .0001
Left	15.0 ± 1.0	5.3 ± 1.1	P < .0001

Table 3. Effect of Ralgro® on hard antler removed (cm ± SE) from fallow bucks.

Antler	Control	Ralgro®	Probability
Right	14.8 ± .9	1.6 ± 1.0	P < .0001
Left	15.0 ± 1.0	1.5 ± 1.1	P < .0001

Table 4. Effect of Ralgro® on paired testis weight (g ± SE) and dressing percent in fallow bucks.

Parameter	Control	Ralgro®	Probability
Paired testis weight	55.0 ± 2.5	24.0 ± 2.7	P < .0001
Dressing %	53.9 ± .5	54.6 ± .5	P > .10