

THE EFFECTS OF MGA¹ FED PRIOR TO NATURAL SERVICE ON REBREEDING
PERFORMANCE OF POSTPARTUM BEEF COWS

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Beef cow-calf producers can profit in many ways by shortening the time interval between the date the first calf is born and the date the last calf arrives. Among the benefits gained from a shorter calving season are: more uniform, more marketable calf-crops; early-born, heavier calves at weaning time; more convenient, herd nutrition and herd health management; and better planning of labor needs. Melengestrol acetate (MGA), when fed to beef females for periods of 1 to 2 weeks, has been shown to induce estrus in some cattle and to partially synchronize estrus in cycling females, upon removal, from the diet. Therefore an experiment is being conducted to determine the effect of short term MGA feeding to naturally bred postpartum beef cows on calving interval and uniformity of calving dates.

Fifty-four mature lactating Brangus cows were divided into equal groups with 27 cow-calf pairs in each of two 160 acre bermuda grass pastures. Two pounds/head/day of pelleted grain were fed to each group starting on April 25. (A three day period of acclimation to the feed was used to insure uniform consumption by the cows). On April 28, MGA-treated cows began to receive 1 mg/day of MGA (melengestrol acetate) at the rate of .5 mg per pound of pelleted feed. Control cows received two pounds of the pelleted grain per day throughout the trial. On May 8, feeding was terminated for both groups. At this time, the cows averaged 60 days postpartum and ranged from 96 days to 1 day postpartum.

On May 8, all cows were individually assigned a body condition score and two bulls were placed in each pasture (cow/bull ratio = 14:1). The bulls had been previously given a breeding soundness examination and were left in the breeding pastures for 90 days. Dicalcium phosphate and salt were available free choice and all cows were exposed to dust bags/and or backrubbers for external parasite control.

Table 1. Preliminary results of body condition score, average calving date, pregnancy rates, and estimated length of pregnancy for MGA-fed and control cows.

	MGA fed cows	Control cows
Number of cows	27	25
Average calving date	March 17	March 1
BCS (on May 8)	5.2	5.3
Pregnancy rate(%)	89% (24/27)	72% (18/25)
Estimated average length (days) of pregnancy on Oct. 10	135	124

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All (except two) cows were pregnancy checked and length of pregnancy estimated on October 10 by a veterinarian. Two of the original 27 control cows were not pregnancy tested but remained with the group. Therefore only data from 25 control cows were considered in the preliminary analysis (Table 1). Non-pregnant cows were culled from the herd.

Calving dates in the spring of 1987 will be recorded to determine mean calving dates for the two groups as well as the variation in calving dates. From these comparisons of 1986 and 1987 calving dates, the effects of MGA feeding on postpartum interval and on calving date uniformity can be further evaluated.