

Implants for Beef Cattle

Most of this information was presented at the Impact of Implants on Performance and Carcass Value of Beef Cattle Symposium in Tulsa, OK on November 21-23, 1996. A proceedings can be ordered from Oklahoma State University (Dr. Don Gill, 201 Animal Science Extension, Stillwater, OK, 74078) at the cost of \$25 per copy.

Implants for Suckling Calves

There appears to be little difference among implants for suckling calves. Calves increase in gain on the average .106/lb/head daily with one implant versus no implant. Calves increase in gain on the average .130 lb/head daily with re-implants after 80 to 140 days implants versus no implant. Replaced heifers growing at least 1.25 lb/head daily and implanted have no negative effects on reproduction. Heifers growing slower than 1.25 lb/head daily have reduced pregnancy rates when implanted. Bulls kept for breeding stock have reduced fertility when implanted.

Implants for Stocker Calves

The greater the diet's potential for gain (the greater the diet quality), the greater the improvement in gain by an implant. Implants improve gains approximately 15% for steers and 10% for heifers.

Implants for Cull Cows

Implants improve daily gain by approximately 10% in culled cows. Younger cows appear to respond more to implants than do older cows.

Implants for Feedlot Cattle

Table 1 summarizes the performance responses from various implants and one vs. two implants on feedlot steers. This data was summarized by Drs. Fred Owens and Susan Duckett at Oklahoma State University. Weak estrogen implants included Ralgro[®], strong estrogens included Synovex[®], Implus[®], and Magnum[®], androgen included trenbalon acetate (TBA), and strong estrogen plus androgens included Revalor and Synovex Plus.

Implants appear to effect all breeds and genetics similarly when gain, feed intake, and feed efficiency are compared (this includes Holsteins). TBA containing implants result in the greatest response in performance but TBA reduces carcass traits most. Bullers occur more in the late summer and early fall regardless of implant. Implanting increases the incidence of bullers two-fold and re-implanting increases bullers three-fold over no implant. TBA increases the

incidence of bullers more than estrogenic implants. Re-implanting significantly improves performance. Re-implanting with estrogen and TA combinations improves performance responses more than re-implanting with estrogen.

Figure 1 depicts the effects of various implants used on various genetic types of cattle relative to carcass traits. This was adapted from data of Dr. Brad Morgan of Oklahoma State University. Carcass trait effects are hard to measure because length of time on-feed affects carcass traits regardless of implant type.

Implant programs should be based on the cattle’s ability to marble and how cattle are being sold. Breeds of cattle that marble well should be on aggressive program containing at least one TBA-containing implant. If cattle are sold on a live basis, less attention is paid to marbling. Re-implanting is recommended in the feedlot every 80 days. See our Premium Technical Report entitled Guidelines for Finishing Cattle Diets for specific recommendations and implant programs.

Table 1.

**Percent Improvement in Performance of Feedlot Steers
From Using An Implant**

| Implant Type ¹ | Daily Gain | Feed Intake | Feed Efficiency | Carcass Marbling | % Choice Carcasses |
|------------------------------------|------------|-------------|-----------------|------------------|--------------------|
| 1 Implant vs. None | | | | | |
| Weak Estrogen (WE) | + 9 | + 4 | - 4 | - 3 | - 4 |
| Strong Estrogen (SE) | + 15 | + 4 | - 5 | - 2 | - 10 |
| Androgen (A) | + 16 | + 3 | - 3 | - 4 | ND ² |
| SE + A | + 21 | + 7 | - 11 | - 6 | - 18 |
| Re-implanting vs. 1 implant | | | | | |
| WE | 7 | 0 | - 4 | - 5 | ND |
| SE | 2 | 0 | 0 | ND | - 5 |
| SE + A | 6 | + 1 | - 6 | - 4 | - 20 |

¹See text for further explanation of implant type.
²ND = Not determined for this treatment comparison.

