Beef Logic

by Bob Long

Growth-promoting implants increase weaning weights

In general, the faster cattle gain, the more efficient the gain. Therefore, most beef cattle operators whether seedstock breeders, commercial cow-calf operators, stocker feeders or cattle finishers strive for programs which result in rapid growth or gain.

One of the cheapest tools available for increasing the growth or weight of calves at weaning is the use of growth-promoting implants. However, implants are not always indicated so it's critical to know how and when to use them.

Implants are not a guarantee of heavy calves at weaning since weight depends primarily upon level of nutrition and genetic potential. However, users of implants in nursing calves can expect increases in weaning weights of 5 to 10 percent which is worth much more than the cost of the implant.

The three major products available for suckling calves are described under trade names as follows:

1. **Ralgro** -the active ingredient is zeranol, a resorcyclic acid lactone. Ralgro is cleared for both steers and heifers and is effective for about 100 days after implantation.
2. **Synovex C—** contains estradiol (a natural occurring steroid) and the hormone progesterone. It's also effective for about 100 days and is used on both steer and heifer calves.
3. **Compudose —** this implant contains only the steroid estradiol which is contained in a slow release implant which lasts approximately 200 days. Compudose should not be used on heifers.

Calves are usually implanted at around two months of age when worked for branding, castration, vaccination and dehorning. However, when implanting with either Ralgro or Synovex C, each effective for only 100 days, the calves should be reimplanted after that period. If the management situation makes it difficult to gather the calves more than once it should be done when the calves are around four or five months of age in order for the implant to be effective during the last 100 days before weaning.

Calves intended for breeding purposes should not be implanted with either of the different implants at any time. Heifers receiving these drugs are severely impaired in reproductive performance. Although heifers do recover and reproduce normally, a lost breeding season is too expensive. Bull calves show reduced testicle size, poor semen quality and loss of sex drive.

Purebred breeders providing seedstock for the beef industry should never use growth-promoting implants at any time. Performance records are used to measure genetic differences between animals and growth stimulators bias these records. Some breeders have attempted to rationalize the use of implants by assuming the calves would rank the same if no implants were used. However, there is some evidence that suggests cattle with a low genetic potential for growth rate respond to implants by a greater percentage increase than do those which are superior genetically, thereby narrowing the difference in performance. Another source of error is the variation in the site of implantation. Different parts of the ear vary in blood supply due to random branching of the blood vessels. Therefore, implants in a group of calves are almost certain to encounter a different blood supply which results in different absorption rates. The result is a different daily dose of the drug in each animal, so the final weights do not represent the genetic potential of the calves.

A further caution — growth-promoting implants contain hormones or hormone-like substances that can, if consumed by humans, seriously damage health. Hence, the implants are placed only in the ear of cattle since the ear is removed and discarded at slaughter, eliminating the possibility of contaminating beef destined for human consumption. Further, recommended dosage levels and implanting instructions should be followed religiously for maximum performance, safety and compliance with quality assurance programs.

The next column will discuss the use of these same growth-promotants and others with older cattle being fed for slaughter.

We Welcome Your Input!

Our Beef Improvement section has been expanded to include more information for today's performance-minded breeder. Both "Beef Logic" by Bob Long and the "What's Your Beef?" columns serve as a forum for Angus breeders and industry experts to express their opinions on current issues and topics of breed improvement and performance programs.

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