Taking Advantage of Growth Implants at Branding

Growth-promoting implants are just another tool that beef producers can take advantage of to improve animal efficiency and performance. At branding, implants designed for use in suckling beef calves can be used to improve average daily gain (ADG) to result in heavier calves at weaning. However, there are scenarios where implants should not be used such as in a natural or organic beef program, or when bull calves will become natural service sires. Furthermore, if implanting heifers at branding that may become replacement heifers a product deemed safe for use in replacement heifers must be used. When used correctly there is a payout however.

Research has shown significant improvements in average daily gain of suckling beef calves implanted at branding. In a particular study by Selk (1997) determined that steers implanted once with various products had between a 3.8% and 5.6% ADG improvement, while heifers implanted with a product safe for use in replacements experienced a 7.5% improvement. It is however, important to note that environmental conditions have an impact on calf performance due to the implant. If the environment supports good calf growth, using implants is expected to improve calf growth compared to those implanted in poor environments. If feed resources are limited, creep feeding implanted calves is recommended so they can reach their full potential as a result of receiving growth-promoting implants.

Unfortunately not everyone is taking advantage. According to the NAHMS Beef Cow-Calf Management Practices survey (2007-08), of all beef cattle operations surveyed in the U.S. only 9.8% implanted any calves with growth-promotant before weaning. The same survey reported only 3.3% of heifer calves intended for replacements were implanted prior to weaning. These statistics illustrate how underutilized growth-promoting implants are within the beef industry. If there are no apparent reasons why implants cannot be used, a producer is foregoing the benefits of improved weaning weights.

If management programs or the production of breeding animals does not restrict use, implanting makes good economic sense. For approximately $1.50 per head, calves can be implanted at branding time and gain an additional 0.1 pound per day. If a calf is 60 days old at branding and then is 210 days at weaning, the increased growth due to the implant could result in an additional 15 pounds of weaning weight compared to a non-implanted calf. To illustrate the difference in value, consider a group of calves with an average weaning weight of 550 lbs compared to a group that had been implanted at branding weighing an average of 565 lbs. If you considered a sale price at weaning in the fall of $152.50/cwt (St. Francis Stockyards median sale price for calves between #550 and #600, 2020) that would result in an added value of $22.88 for the implanted calves. If the implant was purchased for $1.50 and there was an increased value of $22.88, this results in a net gain of $21.38.

While the economics are enticing, it has been mentioned that heifers intended for breeding purposes should not receive implants unless the product is labeled for use in replacements. This recommendation against implanting these animals is due to impacts that the added hormones can have on future reproductive performance. Research has suggested that groups of females implanted had reduced pregnancy rates compared to those that were not. This reduced performance worsens with additional implants received in life (Mathis, 2010). While this impact on heifer performance would strongly discourage implanting, the advantage of added weaning weight due to a single implant at branding may offset the slight decrease in pregnancy rate. With this information, it is recommended that only steers and heifers who will clearly not be retained as replacements be implanted at branding with the same product. Otherwise the disadvantages of using a single implant of a product labeled for use in replacements is minimal.

For best results, implants should be placed correctly in the ear so they will work correctly. For effective implantation the following guidelines should be followed:

- Place the implant pellets between the cartilage ribs in the middle third of the back side of the ear
- Place the implant between the skin and cartilage. The pellets should be able to be seen underneath the skin
- Use the correct implant gun for the product that is being used
- Pull back on the implant gun while squeezing the trigger, this will give the pellets a place to go

Implants are a low cost option to improve weaning weights that a producers should take advantage of if possible. If raising conventional calves that will not be used for reproductive purposes, growth hormones offer an advantage over calves left without implants. A producer should carefully research growth implant products to determine which fits best with their operation and then follow product directions to achieve optimum results.

For more information on growth implants, please visit or call the Cheyenne County Extension Office at (785)332-3171.

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