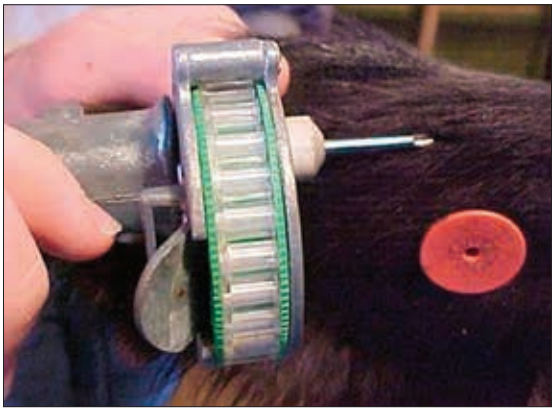
Growth-Promoting Implants for Suckling Calves:

A Small Investment with a Big Return



Data show growth-promoting implants do not negatively affect feeder calf prices and can add a 23-pound advantage in weaning weight.

by ***Grant Crawford***

One of the many decisions cow-calf producers face is whether they should implant their calves. Although there are clear advantages in weaning weight for implanted suckling calves, the use of growth-promoting implants in suckling calves is low, as data from Superior Livestock show approximately 25% of calf lots received an implant in 2018. The current usage is particularly low when considering over 90% of feedlot cattle receive at least one implant. Grant Crawford, Ph.D., Merck Animal Health Cattle Technical Services, discusses the misconceptions hampering the use of implants in beef cattle.

Implants and income

There are two primary reasons for the low usage of implants in suckling calves. First is the perception implanted calves will receive less at the auction market than nonimplanted calves. Data from Superior Livestock Auction representing nearly six million calves across the U.S. from 2010-2018 show implanting calves does not negatively affect feeder calf prices.

Additionally, a summary of 23 research studies identifies a 23-pound advantage in weaning weight for implanted calves. Studies in this summary compared nonimplanted suckling calves to suckling calves that received a single Zeranol-based growth-promoting implant. Considering current calf markets and price slides, the added pounds in implanted calves equates to an approximate $15 per head advantage over their nonimplanted counterparts.

Second is the perception implanted suckling calves will not perform as well in the feedlot. Several research studies have shown this lower performance is not the case, including a recent study at South Dakota State University. In this study implanted suckling calves were 22 pounds heavier at weaning than their nonimplanted counterparts. When moved to the feedlot, all calves in the study received the same implant program. There were no statistical differences between the two groups for weight gain in the feedlot. The 22 added pounds of weaning weight for the implanted suckling calves remained through the feedlot finishing phase.

Implants and fertility

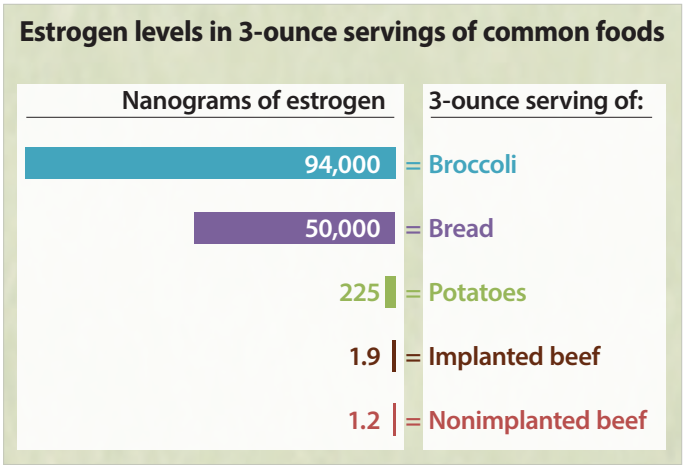
What about implants for replacement heifers? Results overall show no negative effects on pregnancy rates. However, some individual studies show large improvements in pregnancy rates while

other studies show large decreases in pregnancy rates when suckling heifers are implanted.

If a cow-calf operation's primary focus is developing replacement heifers, then implanting suckling heifers may not be worth the risk. However, a typical commercial operation could consider implanting all suckling heifers and retaining a few extra for breeding to account for the potential risk of reduced pregnancy rates. Finally, implants will decrease testicular size and, therefore, should not be used in bulls that will be kept for breeding.

Implants and hormone levels

There is a lot of misinformation regarding the use of implants and their impact on the resulting beef. A 3-ounce serving of beef from a nonimplanted steer contains approximately 1.2 nanograms of estrogen, while a 3-ounce serving of beef from an implanted steer contains 1.9 nanograms of estrogen. Consider the typical estrogen concentrations in 3-ounce servings of other common foods: potatoes contain 225 nanograms, bread contains 50,000 nanograms and broccoli contains 94,000 nanograms. Tofu, a common meat alternative, contains over 19 million nanograms in a 3-ounce serving. Implants also have a positive effect on the environment by reducing the amount of feed and water needed to produce beef and the amount of greenhouse gases produced per unit of beef.



Estrogen levels in beef represent a mere fraction of estrogen levels in other common foods. Tofu, a popular meat alternative, contains over 19 million nanograms in a 3-ounce serving!

Using implants in suckling calves can provide a consistent way to add an additional $15 per head to a calf's value without negatively affecting subsequent feedlot performance. This is important with the ever-increasing cost to maintain a cow and variable feeder calf prices leading to tighter margins. HW