

THE DIGESTIVE TRACT

Setting the bar with early weaning, creep-feeding

by Dan Shike, University of Illinois



For many spring-calving producers, fall is the time they see the fruits of their labor. The investments made

in genetics, nutrition, health and management are realized when they sell the calf at weaning.

Have you ever thought your calves were undervalued? Have you wondered if the new bull brought you the added value you hoped for, or if the extra time, money and effort you put into managing the nutrition and health of your herd translated to greater returns?

I would argue most producers who sell their calves at weaning have

wrestled with this. Many, many factors ultimately affect the sale weight and sale price of your calf crop. No question, simply chasing heavier weaning weights will not guarantee a more profitable operation. And, if your long-term business strategy is focused on calf price, good luck.

The list of management practices that influence health and performance of calves around weaning time is long. Sometimes, you can do almost everything

Intramuscular fat cells (marbling) differentiate during 100 to 200 days of age. After this time, no new intramuscular fat cells can be made.

“right” and one thing might end up costing you dearly. Occasionally, you see someone do almost everything “wrong” and have a good result. This really makes a person wonder if it is all worth it. Before questioning your genetics and management decisions, maybe you should consider retained ownership.

Stay invested

Retaining ownership of calves after weaning gives cow-calf producers an opportunity to capture greater profit and to be rewarded for their investment in genetics and management.

By retaining ownership, cow-calf producers will get direct feedback

on the performance and carcass merit of their calves. This data will allow for informed decisions on genetic selection and management practices.

Retained ownership isn't for everyone, but if you really believe in your genetics and management, there is no better way to find out the real value of your cattle than to retain ownership.

Genetics, management and marketing are all very important to the success of your operation. I am not going to spend any time writing about genetics and what traits you should focus on, or which dollar index is best for which operations. What I really want to focus on are a couple of key management

Continued on page 44

Are you ready for THE CHANGE?

As seasonal forage changes occur, nutritional values in your grass will diminish.

Our liquid feed and tub supplements provide protein, energy and valuable nutrition components to help maintain cattle body condition scores.

Research shows the economic value of proper nutrition through all trimesters of a cow's pregnancy. Don't let your cows go backwards because you weren't ready for THE CHANGE... *in forages.*

Give us a call to learn more
1-800-800-7517
 LIQUID FEED • PROTEIN & MINERAL TUB SUPPLEMENTS

www.westwayfeed.com

Westway
 FEED PRODUCTS
Where solutions flow.®

strategies that can have significant effects on your calves' carcass merit.

Making the grade

As I write this column, the percentage of cattle grading USDA Choice and Prime is down this year. This comes after the percentage of cattle grading Prime nearly doubled during the past five years. With this added supply came new end users.

The current slip in quality has resulted in significant quality premiums. To keep up with the current demand for *Certified Angus Beef*® brand (CAB®) and Prime beef, and to capitalize on quality-based premiums, a focus on management practices that improve quality is warranted.

Although the majority of fat deposition occurs during the latter part of the finishing phase, nutrition and management early in life can influence marbling. Intramuscular fat cells (marbling) differentiate during 100 to 200 days of age. After this time, no new intramuscular fat cells can be made.

From 200 days on, fat cells are filled when cattle are fed high-energy diets and energy intake exceeds requirements for maintenance and lean growth.

This "marbling window" is

important because in many operations, the calf is still at the cow's side during this time. This makes for an interesting dynamic in the beef industry. One of the critical times in a calf's life for determining carcass merit and end-product value is not when the calf is under the management or ownership of the person who will receive the premium for quality. However, producers who are retaining ownership would be capturing the premiums associated with the management decisions they made prior to weaning.

So, let's assume you are going to retain ownership and you will be rewarded (or discounted) for the quality of your cattle. The two practices that offer the most potential to affect quality during this marbling window are creep-feeding and early weaning.

Direct comparison

Several studies have evaluated the effects of early weaning and creep-feeding. These experiments have varied in breed of cattle, age of weaning, length of the creep-feeding period, source of energy fed to early-weaned calves and type of creep feed offered. The University of Illinois has conducted several of these experiments.



PHOTO BY SHAUNA HERMEL

One of the critical times in a calf's life for determining carcass merit and end-product value is not under the management or ownership of the person who will receive the premium for that quality.

The most comprehensive experiment we have conducted was a study done on Angus and Angus x Simmental cattle that evaluated weaning calves at 133 days of age or 100 days later. Early-weaned calves were fed either corn-based or coproduct-based diets. The normally weaned calves were offered either a corn-based creep, coproduct-based creep or no creep.

The early-weaned and creep-fed calves had greater performance from 133 days of age to 233 days of age. There were no differences in diet type among early-weaned or creep-fed calves.

The cattle were slaughtered at a common fat thickness, so by design there were no differences in 12th-rib fat thickness, and this resulted

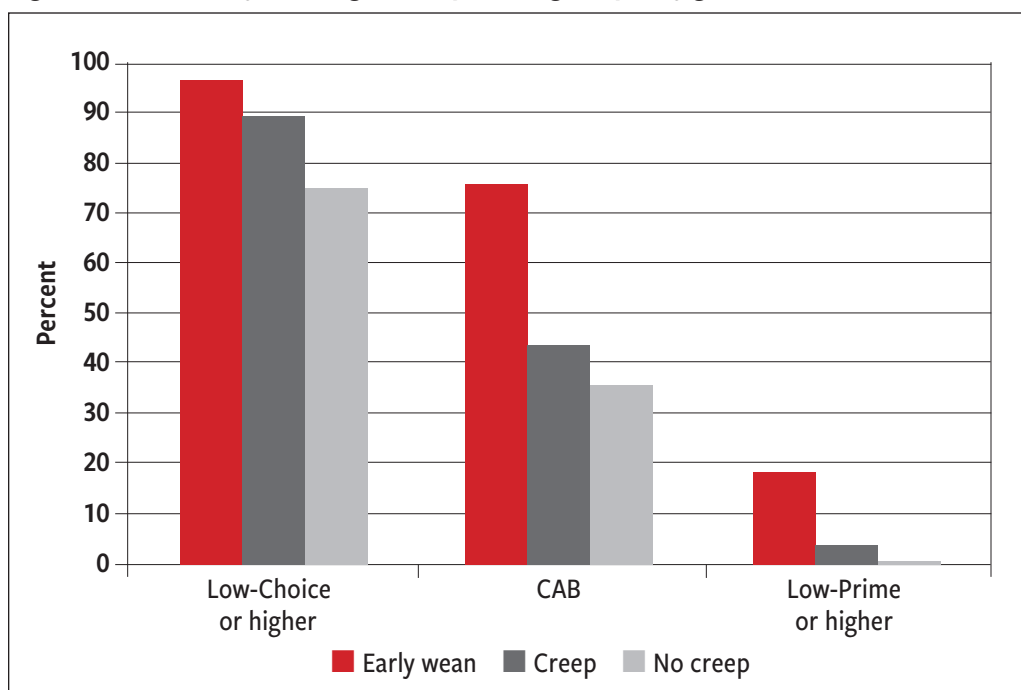
Choice or greater, 44% CAB and 4% Prime. The normally weaned, no-creep calves were 75% Choice or greater, 36% CAB and 0% Prime. With current premiums for quality, this kind of difference in quality grade distribution would result in substantial premiums.

Obviously, there are more feed and yardage costs associated with early-weaned calves, but the current quality premiums will pay for a lot of feed. If you are going to consider weaning early, I strongly encourage you to consider the benefits to the cow herd, as well, when evaluating the costs and benefits with this practice. There are often as many or more benefits to the cow herd as there are to the calves.

Final thought

As you consider your management options around weaning time, think about the value you can add to your calves by weaning early or offering creep feed prior to weaning. Between 100 and 200 days of age, an opportunity exists to influence the marbling potential of your calves. If you are currently employing these management practices or plan to in the future, you should consider retained ownership to capture the value of your genetics and management practices. |

Fig. 1: Effects of early weaning or creep-feeding on quality grade



SOURCE: Meter, W.T. et al. 2013. *The Professional Animal Scientist*, Vol. 29, Iss. 5, 469-481.

in no differences in yield grade. The early-weaned and creep-fed calves were slaughtered 20 days earlier than the normally weaned, no-creep calves. Even though they were slaughtered 20 days earlier, the early-weaned and creep-fed calves had significant quality-grade advantages (see Fig. 1).

The early-weaned calves were 96% Choice or greater, 76% CAB and 19% Prime. The creep-fed calves were 90%

Editor's note: "The Digestive Tract" is a regular column in the *Angus Beef Bulletin* focused on nutrition for the beef cattle life cycle. Dan Shike is associate professor in animal sciences at the University of Illinois.