

ON TARGET



by Justin Sexten, Ph.D.
Director, Supply Development

August 2017

Marketing Quality

The day you make breeding choices, purchase bulls or buy bred heifers, marketing the calf crop begins. With those decisions in the rear view, it's time to consider how to make the most of a great mating. Sale day for your spring-born calves grows closer as each day grows shorter, and that brings up weaning.

Three considerations dominate all related plans: when to wean, what to feed and how to keep them healthy.

Timing implies giving some thought to "the market," along with local forage availability and cow body condition scores (BCS). Predicting the best time to market I will leave to others.

As summer wears on and calves get older, cow condition falls off with the decline in forage availability.

Weaning is the way to improve cow BCS while reducing the stress on grazing resources. You may have read or heard that creep feeding can reduce grazing pressure and cow nutrient requirements, but don't expect a big response. It's more of an add-on for the calves; while eating creep, they will consume less forage but that does not change nutrient needs for their dams. It takes weaning to remove the requirements for milk production that make up 20% of those needs.

Weaning before cow BCS drops below a 4 (where 5.5 is average at calving) lets you start developing the next generation's high-quality carcass. While the influence of fetal programming during the first trimester is not fully understood, placental and organ development patterns suggest nutrient limitation then can reduce performance and quality grade later. That's because underdeveloped lungs are more likely to be affected by a health stress.

While we are discussing future health, let's consider this year's calf, obviously nearer to marketing.

We have often discussed the importance of calf vitality because sickness means lower quality grades.

Preventative measures to enhance health ring bells for both management and marketing, so work with your veterinarian to develop a specific plan and your marketing agent to match that plan to a program. Working in concert with these advisors helps value-added health programs capture more of that value for the calf producer.

Creep feeding can play an important role of course, and that is partly because it helps transition calves from only nursing and grazing to a feed ration as well. Illinois data suggest creep should be fed for 56 days to see a difference in performance. While a consensus of earlier studies suggested starch-based creep to optimize marbling development in young calves, new Illinois research opens doors to other options, such as corn coproduct-based rations relatively higher in fat and protein.

This recent work showed an "up regulation" of genes associated with marbling and fat deposition, although there were no changes in ultimate carcass composition. A corn-based control diet showed similar up-regulation while tending to enhance quality grade in the finished cattle. Although this mechanism (up-regulation) and its link to final carcass quality may not be fully understood, data shows the genes are moving in the right direction to improve quality. Further down the supply chain, cattle feeders can tell you it pays to include these coproducts in the diet because they help keep cattle on feed while moderating rumen acid load.

Opportunities to meet the nutritional needs of growing calves continue to expand with our knowledge of animal genetics, gene regulation and feed composition. As we approach the time when responsibility for calf nutrition shifts from the cow to the yard manager, we can still capitalize on a genetic decision made long ago if we talk about potential added value and collaborate to develop a diet that allows calves to express their genetic potential.

END