PURINA Check point®
Management & Nutrition Tips For Beef Producers

Intake Modifying Technology®: Changing the Way Cattle Eat to Maximize Potential Profits

Snack eating. It's something that's been drummed into our heads for years as an unhealthy habit for people to engage in.

But for cattle, it is proving to be the most efficient method to assure that they receive—and can digest—the proper nutrients in the correct balance. The end result is healthier cattle and increased profit potential.

Intake Modifying (IM) Technology®, as this approach is dubbed, uses well-researched ingredients and nutrients that essentially modify the eating behavior of cattle. The ingredients provide physical, as well as metabolic, signals to the animal causing them to alter their eating behavior. So, the cattle consume the nutrients they are given—but in smaller portions than they otherwise would—multiple times a day.

This pattern of eating optimizes the digestion of cattle, compared to eating large amounts in fewer "sittings," according to Ron Scott, Ph.D., Director of Beef Research and Development at Purina's LongView Animal Nutrition Center, located 40 miles southwest of downtown St. Louis.

"Like people, if cattle eat as much and as fast as they can, they get some digestive upsets," Ron explained. "With IM Technology, the cattle eat some, then go out and graze and repeat that process, which keeps them from overeating the supplements or feed. That, in turn, prevents upsets from overconsumption and allows better utilization of the forage."

In confined settings, such as the feed yard where the complete diet is from feed, the technology delivers a better cost of gain by encouraging snack eating, Scott added. It also allows for reduced roughage, without causing digestive upsets. That reduced need for roughage, in turn, reduces water requirements and manure output.

Intake Modifying Technology®, which is now used in a wide variety of Purina feeds and supplements, is the result of many years of ongoing research, with products becoming increasingly sophisticated over that time. Most of the research is conducted at the LongView Animal Nutrition Center, which Purina established more than 80 years ago, in 1926.

There, on approximately 1200 acres, nine employees care for and collect data on cows, calves and feedlot animals involved in various nutritional research protocols. The facilities at LongView include pasture for approximately 110 cow-calf pairs and 150 stockers, feeding units for 250 feedlot cattle, as well as palatability facilities. Once a product has been developed and tested at "the farm," it is then assessed in the field.

"Before we launch a product, we work with ranchers and feedlots to make sure we get the level of performance and economic response that is viable in the real world," explained Chris Forcherio, Ph.D., Manager of Beef Research, LongView Animal Nutrition Center.

"If the performance and economic responses from the field tests show value for the end-user, then we do a regional product launch to make sure the product performs and provides value under various production conditions," he added. "It must work in lots of environments and forages bases."

Chris said once the product is launched, dealers and the sales team collect "proof" that is entered into regional databases to share with ranchers in that area. That information, along with the knowledge of Purina dealers, consultants, cattle specialists and sales representatives, is crucial to the success of IM Technology.

"There is a science and art to IM Technology. We handle the science here; the art is in the field—advising customers and problem-solving," Chris stated. "The technology is more than just the product in the bag; our dealers and sales representatives can help provide tips that will make it successful. They understand what it can do and can't do."

Intake Modifying Technology® is available in a variety of forms of Accuration® including pellets, meals, liquids, tubs and blocks to provide supplemental nutrition for cows, calves, growing and finishing animals. Using supplements with IM Technology can also help the producer determine the quality and quantity of available forage.

"Cows will start eating more than they have been of the IM products if the forage availability or quality is poor," Scott said. "So, it's a great barometer and management tool to tell us what nutrition is like for the herd."

"That is one of the most important aspects of this product line. We need to monitor consumption, because if you don't know what it is, you are missing a big component in managing the feeding of your cattle," he elaborated. "The products are designed so that they have to be refilled; so, you can continually monitor the situation."

To learn more about using Purina products with Intake Modifying Technology®, contact your Purina dealer or representative.

Smarter Weaning Practices Mean Bigger Profits

Weaning. It's a stressful time in the life of a calf—and stress can take its toll on the development and value of your cattle.

It suppresses the immune system and makes calves more susceptible to things like bovine respiratory disease, coccidiosis and acidosis, according to an article by Clell V. Bagley, DVM, retired Extension Veterinarian at Utah State University.[1] This is crucial for all cattle, but is particularly important for calves whose immune system is still developing.

So minimizing stress is crucial when it comes to weaning calves. Otherwise, the odds of incurring losses increase dramatically. Here are a few ways that producers can reduce additional stress and manage the weaning process to achieve the best result for the calf—and for your own profit potential.

Take it slow. Don't rush the weaning process by shipping calves before they are fully weaned. Transport—and arriving in a totally alien environment—is very stressful. That stress can result in weight loss, sickness…even death. And, those changes increase if the calf is also stressed from weaning.

Minimize other stresses. Avoid performing too many other herd functions, such as dehorning and castration, during this critical period as these are also very stressful. Dehorning and castration should be completed well before weaning—or 30 days after.

Reduce parasites. Deworming may be advisable for calves predominantly on pasture. Check with your veterinarian about products and schedules.

Vaccinate judiciously. Most veterinarians recommend a single-dose vaccination protocol 3-4 weeks before weaning; others administer two doses, one six weeks before weaning, and another three weeks before. Vaccinations performed earlier may not be as effective because calves that young simply don't respond well to vaccines, according to Bagley.

Calves that have received just one round of shots prior to weaning should also be vaccinated at weaning. Some protocols call for another round of MLV seven days later.

Regardless of your preferred schedule, make sure that vaccines are handled properly, including refrigeration, reconstitution, equipment sterilization and avoiding sunlight and heat. Don't mix vaccines that are not intended to be administered together. Complete directions should be available with each product.

Avoid dietary changes. Making changes in the calf's diet should be minimized during weaning as this requires the calf's rumen to grow different organisms, which can take up to two weeks. Calves on pasture need time to acclimate to feedlot rations. Sound creep feeding practices before weaning can help in the transition.

Keep an eye on the sky. You avoid the hottest times of the year through early weaning, but severe weather of any type can have a negative impact on weaning. Sprinkle pens in hot dry weather to minimize dust and the respiratory problems it can cause. Also, make sure calves have adequate shade and water, and process them early in the day during hot weather.

Ensure safety. Make sure weaning pens are in good shape, including fences, gates, feed bunks and troughs. Clear out remaining manure, fill in ground holes and remove other hazards.

Provide adequate water. Dehydration can be a problem for calves unacquainted with troughs. Sometimes they are afraid or simply too stressed to drink. Use a trough style familiar to them or have water flowing into the trough to attract their attention.

Keep an eye out. During the first few weeks of weaning, keep a close eye on calves, checking for illness, eating behavior and other problems. If illness is widespread, take temperatures daily and treat calves with temperatures over 103.5—or treat the entire group.

Watch sick calves. Keep an accurate record of each calf, its symptoms and medications. If possible, separate sick calves for treatment and recovery.

These methods should help your calves achieve a smooth transition to independence. And that means fewer headaches for you—and your wallet.

1. http://www.extension.usu.edu/files/publications/factsheet/AH_Beef_30.pdf

Abbott Charolais Cattle Farm:
An Operation That Beats the Odds

When one of Willard Abbott's cows bore twins one Saturday in March, he knew it was unusual, and he was gratified that both survived and were healthy. But, when triplets were born to another cow in his herd the very next day, he was astounded, especially since all three were healthy—and heifers.

According to Willard Abbott, owner of Abbott Charolais Cattle Farms near Poplar Bluff, Mo., the chance of a cow having triplets that live is 1 in 175,000. The chance of them being the same sex is 1 in 500,000.

But, that's just what happened on his ranch on a misty, 35-degree Sunday morning in March.

"When I got to the farm that morning about 8 a.m., my hired hand, Fred, said, '#49 had a calf, and I think she's going to have another one,'" Willard explained.

"I didn't think there was much chance since we had just had twins the day before; but when I drove up, she had more feet sticking out, and in about 10 minutes she had the second calf," he said. "Then, as I was leaving, I could see her for about half a mile, and she was laying back down."

Because Willard knew that five-year-old cow should be licking the calves, not lying down, he returned to the pasture. About the time he arrived, the third calf came out. He said all three calves were in good condition and weighed more than 60 pounds.

Charolais cattle are known for their propensity for multiple births. For the year, Willard's herd had three sets of twins and one set of triplets, making his total spring calf crop 43 out of 44.

Willard said the five-year-old, 1,400-pound mother of the triplets "did her best" but was unable to care for all three calves, so he took them home where they spent the night in his garage. His son and girlfriend agreed to bottle-feed the other two, along with one of the twins born the day before.

In the meantime, Willard brought in two of his other cows that had lost calves. They, along with the mother of the triplets, are now on the 400-acre farm providing milk to the four calves (all three triplets and one twin).

"The four calves are running to the creep feeder now, and unless something out of the ordinary happens, they are definitely going to make it," he said.

But the outlook hasn't always been so sunny for Willard's operation. In 2007, a major flood washed away 35 cows and 25 calves. They were valued at $80,000 to $90,000 and constituted a major portion of the total herd, which is usually comprised of about 80 cows, 20 heifers and 40 or 50 calves.

"My daughter now says, 'the good lord is paying them back to me about three calves at a time.'" Leslie is Willard's only daughter; he also has four sons.

Willard, 70, bought his current farm in 1986, but he's raised cattle since 1966. During the first 30 years, he raised cattle "on the side" while working full-time, first as a hospital administrator, then in real estate.

As a seed stock producer, Willard takes great pride in the quality of the cattle he breeds and sells. One of the ways he maintains that quality is through the use of Purina Wind and Rain®All Season Minerals, a practice he adopted about the time the product came on the market.

"I had been using other kinds of minerals and had problems with it getting wet and caking up, so the Wind and Rain name made sense," he explained. "I went to several of their programs at the dealership and tried some of the product. Now, that's all I use in terms of minerals.

"I like the fact that it doesn't get hard when it's wet. And, I don't know why, but the feed seems to convert to pounds better," he added. "I give Wind and Rain credit for those 43 calves out of 44 cows. If you have an 80 percent calf crop, you are doing well; and I'm beating that."

Willard says he's most gratified when buyers call and tell him what a good calf crop they have and how well the bulls they purchased performed.

"They want another one of my bulls; that's one of the reasons I'm in business. My intention is to have the best herd of cattle in southeast Missouri … and I'm close, so I'm told."

Raising and selling registered bulls—which he's been doing since 1990—is his favorite part of the operation today. But, he acknowledges that the cattle provided much-needed stress relief when he was working in hospital administration and real estate.

Now, he says he just does it because he loves it.

"I'm 70 years old and can't wait to get out there every day," Willard said enthusiastically. "In fact, I'm going back out there tonight. It's a different thing every day. You never have the same problem: there's a new calf, a sick cow, or in rare cases a cow having triplets."

Preconditioning Takes Time and Effort, But Can Deliver Real Value

Mark Harmon knows the value of cattle. He ought to. He's worked at the Joplin Regional Stockyards (JRS) in Joplin, Mo., for more than 30 years.

The JRS operation sold 440,000 cattle in 2009 and "sees 400-500 sellers on any given day."

Of JRS's 10,000 producer customers, Harmon says roughly 45 percent precondition their calves. It's a practice he says more producers could benefit from, if they had the time and facilities to do it.

"Preconditioning is one of the ways you can add value," he said. "The more you can do for that animal while you have that calf, the more valuable it will be to the person down the chain. It's like any product— the better you take care of it, the more marketability it has when selling," he explained.

He estimates that preconditioning takes 45 days and costs $50 to $75 per calf, but can deliver $2-4/cwt more for a calf than one that hasn't been preconditioned. That, combined with the fact that preconditioned calves weigh more and have less health risk, can mean significant extra profit for the seller. Harmon stresses that a producer must know his cost of gain and other inputs to measure the extra value possibilities.

Sellers must be willing to invest the time in tracking all expenses associated with preconditioning. That includes labor and supplies to properly wean, vaccinate, castrate and dehorn their calves. They also should calculate the price of their calves by assessing market values for similar livestock to provide a basis for comparison.

"For example, if I wean on April 26, I would weigh my calves that day or have a close idea of what they weigh and collect prices for cattle like mine on that date," Harmon explained. "From then on, I record all my expenses so I can see how much value I created, compared to how much I would have gotten for them on the day I checked prices."

Harmon says if producers do a good job of preconditioning, they will earn a reputation that will further enhance their ability to sell their livestock.

"Reputation is everything in the cattle business," he stated. "The buyers know producers and their cattle and how well they've been taken care of. Cattlemen want to get the best price, but buyers also want healthy calves. That reduces their risk and their need for labor-intensive activities."

Purina offers a variety of products to help you optimize your preconditioning program, including Impact® Starter, Preconditioning/Receiving Chow®, and new Precon 5™. Contact your Purina dealer or your local representative for more information about which of these products will be the most effective in your program.

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