

## 35 Keys to Success

### Herd Health

preconditioning for 60 days or more generally produced \$80.17 profit.

Low feed costs coupled with high cattle prices put an exclamation point on that in today's marketplace.

"2014 was the biggest 'no brainer' year in history to precondition your calves," he said. Those putting on the most weight during the postweaning phase earned \$210.15 last year. "2015 could be even better," he added.

Hilton shared four keys to success.

**1. Team Building.** Get a team of experts who are willing to continue learning with you, he said. That might include a veterinarian, nutritionist, extension personnel, etc.

**2. Weight gain.** "In preconditioning, if you're not having those calves gain a significant amount of weight ... you're not going to have as much profit in them," he said, sharing examples of 3-pound (lb.) average daily gains (ADG) prior to feedlot arrival. "The genetics we've got today — they can do it. They can put it right on and not get fleshy."

Calves just maintain weight during the first week of preconditioning, so every additional week you keep them helps the bottom line. "We want to dilute out that first week and make it not a big deal," Hilton said.

**3. Herd health and nutrition.** Finding the right vaccination program and its timing are essential to preconditioning success. "I'm not going to tell you what diseases to vaccinate for, because I don't know. I've only practiced in two states," he said, encouraging one-on-one consultations with a veterinarian.

In the Indiana study, 79% of the cost of preconditioning was in the form of hay and feed, Hilton said, underscoring the importance of nutrition.

**4. Marketing.** "Build a résumé for your calves," he said. "Your calves are special. You need to build a résumé for them." That includes finding out more about how the calves do after weaning, either by retaining some ownership or participating in a small-scale feedout. Hilton said the bottom line is that health pays, but it pays more when marketing matches management.

"If you are not adding value to your calves, you are making a huge mistake leaving money on the table and giving my feedlot owners a lot poorer-quality cattle," he said.

— by *Miranda Reiman*

## Potential solution to pasture limitations during expansion

There is no doubt that the beef industry needs to expand the cow herd to remain viable as an industry, but capital requirements, fewer available grazing acres and older cow owners are all limitations to expansion, said Don Close, vice president of Food & Agribusiness Research and Advisory Department for Rabobank.

Of these limitations, land cost is the biggest inhibitor. During a 10-year period, he said there was a 6% decrease of available grazeable acres. However, this was offset by a 9% reduction in cow numbers. Now that cow numbers are on a slow, but predicted steady rise, the beef industry will feel the squeeze more. Additionally, as cows have gotten bigger, they require more acres of forage.

Close reported research that investigated the use of excess feedyard capacity or confinement buildings such as linear slant buildings and hoop barns by cow-calf operations. The study evaluated comparative production costs with Southern Plains conventional, Northern Plains conventional, young cow full confinement, young cow semi-confinement, and older cow full confinement. Additionally, three different price scenarios were applied and compared to calculated breakeven costs — looking at current high calf prices, mid-range 38%-50% retraction prices, and low-end prices.

For the mid-range prices, which Close deemed the most viable, the revenue per cow per year in the conventional operations was within the \$258.50-\$220 range. He reported that for semi-confinement, revenue was \$324.50; older cow confinement revenue was \$363; and young cow confinement was \$253.

"Economically, confinement options make sense," he offered. He said calves raised in confinement are weaned more easily because they are already used to feed and water being available. Calves who go on to the feedyard experience less stress because their environment hasn't changed drastically. He added that more time is required for this system, but not the number of laborers. A confinement system also lends itself for an artificial insemination (AI) program to increase genetic quality.

He explained that limit-feeding of cows drives increased efficiencies, which can result in 10%-20% feed saving, and permits changing feed intake to the reproduction cycle. Improved cow health due to consistent nutrition enhances calf prenatal health, he said. Finally, confinement options provide income enhancement to allow young family members to return to the farm.

— by *Kasey Brown, associate editor*



PHOTO BY KASEY BROWN

► "Economically, confinement options make sense," said Don Close, vice president of the Food & Agribusiness Research and Advisory Department for Rabobank.

## Comprehensive fly control

Pests like flies, ticks and lice can wreak havoc on a beef operation's productivity. They can transmit disease, destroy property and disrupt feeding, and thus the growth, of your calves. Larry Hawkins of Bayer Animal Health spoke to cattlemen attending the Bayer Learning Lounge session.

There are four defense-point strategies, Hawkins explained, including on the animal,

facilities, surrounding environment and feed-through. He suggested rotating pest control because pests develop a reduced susceptibility to the active ingredient over time. There are three "modes of action" to rotate between.

Pyrethroids are sodium channel modulators; they disrupt the normal flow of sodium ions or nerve impulses, he said. Organophosphates are cholinesterase

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inhibitors, which prevent the breakdown of acetylcholine. Finally, neonicotinoids are acetylcholine receptor agonists, he said. These mimic the action of acetylcholine. Simply put, these agonists keep the nerves of the pest firing all of the time.

The four major pests to beef cattle are the horn fly, face fly, stable fly and house fly. The horn fly reduces weight gain and spreads disease. These are those “black patches” you see on the backs of cattle on the summer, he noted. A single fly bites an animal about 40 times a day and takes a blood meal. Now, if there are 500 flies on the animal, that is a lot of bites and blood taken. He shared research that reported an 11.8-lb. to 14-lb. disadvantage in cattle without fly control. The horn fly breeds in fresh manure, rests on the cattle and feeds on the cattle blood.

The face fly spreads the bacteria that causes pinkeye, *Moraxella bovis*. The fly has a spongy mouth much like a Brillo® pad, Hawkins explained. The flies irritate the eye to produce a tear, on which the fly feeds. Cattle with pinkeye sell at a price disadvantage. The face fly breeds in fresh manure; rests on fence posts, trees, bushes and other objects; and feeds on saliva, tears and nasal mucous.

The stable fly decreases weight gain and milk production. One study showed that stable flies restricted weight gain by 0.48 lb. per day, and milk production was decreased by 30%-40%. Stable flies lead to cattle bunching because flies will affect the cattle on the outside of the group most frequently. This bunching can lead to heat stress. The stable fly breeds in manure mixed with moist decaying organic matter; rests on barn walls, fences, weeds and other surfaces; and feeds on blood from cattle.

Finally, the house fly transmits more than 65 disease-causing organisms. They also cause a nuisance to cattlemen and the cattle. The house fly breeds in moist manure and/or decaying organic matter; rests in manure, contaminated soil, fences, buildings and trees; and feeds on old feed, waste, sweat and tears of animals.

He noted how each fly breeds, rests and feeds to help know when and where to treat for them. Animals can be treated with tags,

**More than a byproduct**

“Market cows should not be considered a byproduct of the beef industry,” stated Colorado State University (CSU) meat scientist Keith Belk. “They are much more than that.”

Belk, along with CSU colleagues Daryl Tatum and Dale Woerner, emphasized that cull cows represent more than ground beef, hide and offal. They encouraged producers to consider management practices that can increase the value of market cows.



PHOTO BY TROY SMITH

► Daryl Tatum explained how USDA marketing classes for slaughter cows are based on percent lean.

The speakers stressed that today’s slaughter-cow market is driven by the limited supply of boneless lean beef and lean trimmings. Many producers do not realize that many cow carcasses yield whole-muscle cuts. Producers often can capture more value by feeding cows a high-energy diet to add condition, weight and quality prior to marketing.

Tatum explained how USDA marketing classes for slaughter cows are based on percent lean. Using live animals to demonstrate the differences, he advised producers

to develop an “eye” for discerning whether cows, based on their condition, will fit the “breaking,” “boning” or “lean” classifications. Tatum cited recent average dressed-cow prices for each class as \$198, \$210 and \$217 per hundredweight (cwt.), respectively. An additional class, “premium white,” earned \$206 per hundredweight.

“Premium whites are cows that have been grain-fed for 70 to 90 days and produce carcasses with white-colored fat,” said Tatum. “They typically have marbling scores similar to Choice or Prime steers and heifers.”

Keith Belk said some of the growth-promoting implants used in fed steers and heifers may also be applied to improve carcass value of cows fed for the premium-white target.

Dale Woerner demonstrated how many whole-muscles are removed from primal cuts to create products used by foodservice, including many restaurants. Feeding grain to cows for a relatively short period of time, the CSU team explained, can improve the color of both fat and lean, and enhance the size and shape of whole-muscle beef cuts.

The team emphasized the importance of timely marketing and avoiding value loss due to ill-placed brands, injection site defects and excessive stress at time of shipping.

— by Troy Smith, field editor

dust, sprays and pour-ons. Facilities can be treated with dust, bait and spray. The environment can be treated with bait, spray and sanitation to reduce breeding grounds. Feed-through can be accomplished by oral medication that mixes into feed and mineral. Additionally, fly predators — such as a wasp that lays eggs in fly pupa — can work effectively in confined spaces, he noted.

— by Kasey Brown

**Emerging diseases and trichomoniasis**

Under the auspices of the Cattle Health & Well-Being Committee, the Beef Cattle Herd Security/BVD Working Group was first formed to explore strategies for managing bovine viral diarrhoea (BVD), but also

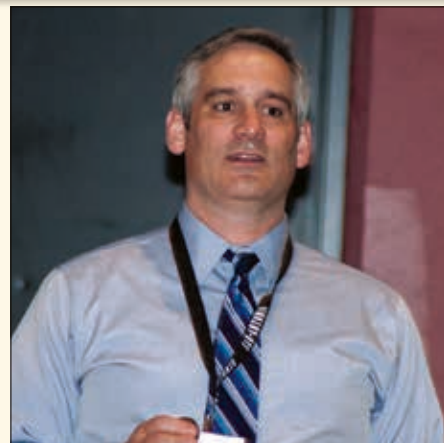


PHOTO BY TROY SMITH

► Years before, said Patrick Webb, the industry actually had started talking about developing a system for handling emerging diseases.

