

FEEDER INFORMATION HIGHLIGHTS

Volume XXIV Number 1

February 2016





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FEATURES

FEEDLOT FOCUS

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It's OUR responsibility

Last fall as I was planning the editorial for this issue, two topics that were front and center were COOL and the Dietary Guidelines. Both were cause of great concern to many in the industry, and a lot of effort was spent in these directions.

Now COOL is no more. After years of discussion, lobbying from both sides, international meetings, news stories, ramifications and suggested retaliation, with one swipe of a pen (and votes in Congress) COOL is gone. Done. Finito.

The final Dietary Guidelines were recently released, and lo and behold, they include lean beef. Thank goodness. As a member of my local school board, I wasn't sure how I could sleep at night knowing our local school would not have been able to offer beef in their menu if it was not part of the guidelines. Schools who participate and receive funding from the national school lunch program must abide by the guidelines.

My kids are brown baggers, and they often take leftovers for lunch. I hated the thought of others salivating at leftover meatloaf or a hamburger from our grill the night before while picking at their school-issued meal of tofu casserole. Okay, maybe I'm exaggerating a little. But you get the point.

All kidding aside, the industry as a whole can put a big "check" next to these two issues that have been front and center for the last 12 months or more.

But there's much more to be done.

In the last six to 12 months, there has been increased messaging about "share your story." From pharmaceutical companies to industry associations, there is a focus on educating consumers about our industry, our product, and how our product is raised. I believe this is vital to the beef community. No matter which side of the COOL fence you sat on, we are all selling beef.

Although demographics in our industry are aging, the consumer demographics are not. These consumers have a lot of purchasing power, and they have different thoughts, beliefs and rationale for their purchases. We must learn about this large body of purchasers



and understand what is important to them.

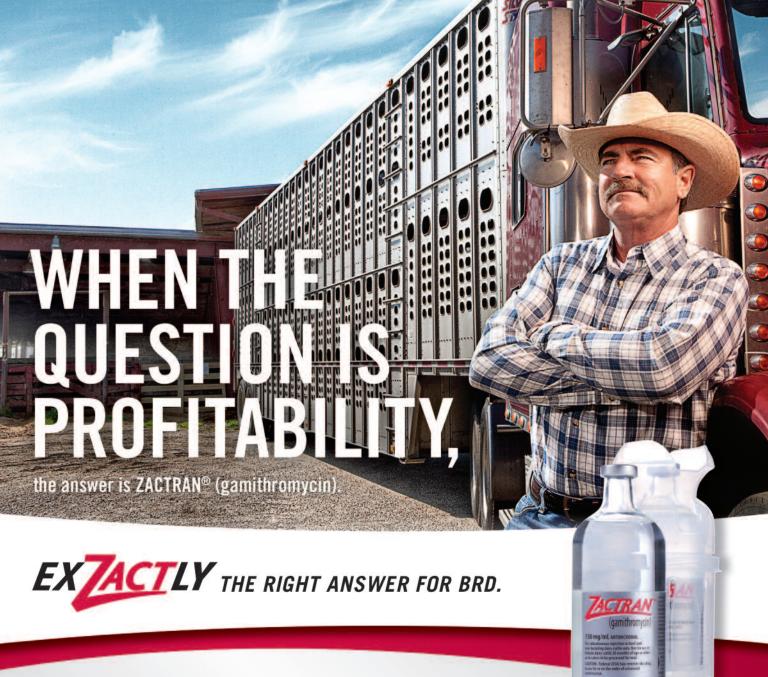
Then we must share our experiences, our livelihood, our product. Just because two legislative issues are no longer at the forefront, we can not get comfortable. We must be proactive. Don't sit back and relax. There are more issues to contend and discuss, and more consumers to educate.

Registrations at the Cattle Industry Convention were great. A large number of producers came together to learn, share and act. But there are more ways you can engage. Get active in your local and state associations. Become educated on the issues and be a voice for the industry.

Beefless school lunches almost became a reality. We can't sit idly by and hope the next major issue is a near-miss.







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⁵Van Donkersgoed J, Merrill JK. A comparison of tilmicosin to gamithromycin for on-arrival treatment of bovine respiratory disease in feeder steers. Bovine Practitioner. 2012;46(1):46-51.



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¹ Sifferman RL, Wolff WA, Holste JE, et al. Field efficacy evaluation of gamithromycin for treatment of bovine respiratory disease in cattle at feedlots. Intern J Appl Res Vet Med. 2011;9(2):171-180.

2 Lechtenberg K, Daniels CS, Royer GC, et al. Field efficacy study of gamithromycin for the control of bovine respiratory disease in cattle at high risk of developing the disease. Intern J Appl Res Vet Med. 2011;9(2):189-197.

ZACTRAN product label.

Kahn, CM. Merck Veterinary Manual. 10th edition. 2010:1319.





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INDICATIONS

ZACTRAN is indicated for the treatment of bovine respiratory disease (BRD) associated with Mannheima hoemolytica, Pasteurella mulbocido, Histophilus sonni and Mykoplosma bovis in beef and non-lactating dairy cattle, ZACTRAN is also indicated for the control of respiratory disease in beef and non-lactating dairy cattle at high risk of developing BRD associated with Mannheimio haemolytica and Posteurille multocida.

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As with all drugs, the use of ZACTRAN is contraindicated in animals previously found to be hypersensitive to this drug.

WARNING: FOR USE IN CATTLE ONLY. NOT FOR USE IN HUMANS. KEEP THIS AND ALL DRUGS OUT OF REACH OF CHILDREN. NOT FOR USE IN CHICKENS OR TURKEYS.

The material safety data sheet (MSDS) contains more detailed occupational safety information. To report adverse effects, obtain an MSDS or for assistance, contact Merial at 1-888-637-4251.

RESIDUE WARNINGS: Do not treat cattle within 35 days of slaughter. Because a discard time in milk has not been established, do not use in female dairy cattle 20 months of age or older. A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for yeal.

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The effects of ZACTRAN on bovine reproductive performance, pregnancy, and lactation have not been determined. Subcutaneous injection of ZACTRAN may cause a transient local tissue reaction in some cattle that may result in trim loss of edible tissues at slauother.

ADVERSE REACTIONS

Transient animal discomfort and mild to moderate injection site swelling may be seen in cattle treated with ZACTRAN.

EFFECTIVENESS

The effectiveness of ZACTRAN for the treatment of BRD associated with Mannheimia haemohytica, Pasteurella multocida and Histophilus somni was demonstrated in a field study conducted at four geographic locations in the United States. A total of 497 cattle exthibiting filinical signs of BRD were enrolled in the study. Cattle were administered ZACTRAN (6 mg/kg BW) or an equivalent volume of sterile saline as a subcutaneous injection once on Day 0. Cattle were observed daily for clinical signs of BRD and were evaluated for clinical success on Day 10. The percentage of successes in cattle treated with ZACTRAN (58%) was statistically significantly higher (p<0.05) than the percentage of successes in the cattle treated with saline (19%).

The effectiveness of ZACTRAN for the treatment of BRD associated with M. bovis was demonstrated independently at two U.S. study sites. A total of 502 cattle exhibiting clinical signs of BRD were enrolled in the studies. Cattle were administered ZACTRAN (6 mg/ gBW) or an equivalent volume of sterile saline as a subcutaneous injection once on Day O. At each site, the percentage of successes in cattle treated with ZACTRAN on Day 10 was statistically significantly higher than the percentage of successes in the cattle treated with saline (74.4% vs. 24% [p <0.001], and 67.4% vs. 46.2% [p = 0.002]). In addition, in the group of calves treated with gamithrowing that were confirmed positive for M. bovis (pre-treatment nasopharyngeal swabs), there were more calves at each site (45 of 57 calves, and 5 of 6 calves) dassified as successes than as failures.

The effectiveness of ZACTRAN for the control of respiratory disease in cattle at high risk of developing BRD associated with Mannheimin haemolytica and Postsurella multocida was demonstrated in two independent Studies conducted in the United States. A total of 467 crossbred beef cattle at high risk of developing BRD were enrolled in the study. ZACTRAN (6 mg/kg BW) or an equivalent volume of sterile saline was administered as a single subcutaneous injection within one day after arrival. Cattle were observed daily for clinical signs of BRD and were evaluated for clinical success on Day 10 post-treatment. In each of the two studies, the percentage of successes in the cattle treated with 2ACTRAN (86% and 78%) was statistically significantly higher (p = 0.0019 and p = 0.0105) than the percentage of successes in the cattle treated with saline (36% and 58%).

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xpect the unexpected is the word from Dr. Nevil Speer, Vice president, U.S. Operations with AgriClear.

"Volatility is really the key," says Speer, who highlighted the message at the Iowa Cattlemen's Association annual convention in Des Moines. "You know how tough and challenging commodity markets are. They can eat you up any day of the week. But that's were we are. That's the reality we're dealing with."

With markets up one day and down the next, Speer says making sound decisions is problematic, and even understanding the forces behind the flux doesn't always help.

"That's the challenges we're facing. And they're very real."

One year ago, cattle producers on every rung of the system were feeling pretty good. Prices had rebounded from the bottom of the financial crisis to reach all-time highs. "We doubled the value of live cattle in five years. That was unprecedented," says Speer.

The market goes where the cut-out goes

Beef is a consumer-driven business. "There are new dynamics in supply and new dynamics in demand," says Speer, "and we're putting more capital at risk all the time."

Beef going into cold storage continues to mount. At the end of October, the USDA put inventories at 512 million pounds, approximately one week's worth of kill, making 2015 the largest October on record. "Beef supplies are not current and that's keeping a lid on prices," says Speer.

In addition, cattle weights have increased. Placements are down in the lighter categories and up in the 800-pound or more slots. "Stockers and hanging on and leaving cattle on pasture longer," explains Speer. "And the old adage still holds – heavy in, heavy out. Feedyards don't want light animals. They want to bring them in heavy. They're fighting the market, too."

Early December saw 1,390 slaughter weights. "The meat supply is growing, but it's still frontend supply."

Speer says while weights are beginning to come down some, producers can continue to see that trend through at least May of 2016.

It's a global market

Further complicating the picture is the worldwide value of the



U.S. dollar. Mid-January put the Canadian dollar at a 13-year low compared to the U.S. currency, a pattern seen around the globe.

"On the one hand, that's a good thing because it signals a strong economy," says Speer. "But it's a double-edged sword." For an industry that relies heavily on an active export market, one of those sides feels dull. "It's a paradigm we haven't seen for about 30 years." Monetary policy set by the U.S. will be key going forward, as will foreign economies, with crucial markets recently showing their instability.

Consumer confidence in beef quality continues to influence the market as well. Prime and branded beef sales are on the rise, with premiums holding steady despite the growing supply. One in five dollars coming into the business now comes from Prime and branded products, according to Speer, with total dollars generated passing Select sales for the first time. "Consumers are telling us they like a high-quality product and we've responded. That gives us somewhat of a buffer in the commodities game."

Live cattle contracts are at record lows, and investors are unwinding

from positions in futures contracts. "There are less hedging opportunities for sellers," adds Speer, "and a lot of market noise. It's a very complex business and external events like foreign currency and external investors – added to the speed of real-time investment action – make market management nearly impossible."

Speer tells producers to lock in margins, pay off debt, refinance long-term debt and increase working capital as best they can. "Make sure you have enough money sitting out there in case something happens." In other words, control the few things you can.

There are two sides to risk

"The good news there is also opportunity," says Speer. "Risk protection against the down side is important, but there's also the risk of missed opportunity. Both sides are equally important." He urges cattlemen to study and learn.

"What we do inside is just as important as what we do outside. Getting information is not a waste of time." That especially applies in this age of extreme volatility – volatility that is likely to continue for some time to come. "It can take years for factors in a complex business like beef to unwind and correct themselves."

And remember there's more than capital at risk. Keep your perspective.

Speer cautions against the emotional pitfalls at a time when making a decision can be the day's biggest challenge. "A lot of emotion can get tied up with money," he says. "Especially when the dollars are so high. It can be paralyzing. If you make a mistake, it's a lot of money."

"Celebrate the little victories, and forgive yourself for the mistakes," adds Speer. "All you know is today. Just do the best you can."

A Hot Item for Feedyards This Year

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This year the price of grain and hay have shown the benefits of fat and molasses in feedlot rations. But a critical factor in their use is the storage for fat or molasses. Palmer has been building a heated, sloped bottom, all welded steel tank for fat and molasses storage for over 25 years. The heaters, gas or electric, are in a heating chamber below the storage area. This prevents the products from scorching. The top of the heat



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The cycle turns

Never short on drama, the 2015 cattle market came in on a high from the smallest cowherd since 1960, only to drop like a stone from midsummer to late fall and end on a recovery bounce.

The federally inspected fed cattle harvest last year was down 4.6% and cow harvest down 4.3%, maintaining the string of annual reductions since 2010 and 2011, but 2016 should begin gradual increases from cowherd expansion. That was evident from the meager 32.5% heifer share, compared to 36% or more during cowherd contraction. There were 12% fewer heifers harvested in 2015, while steers were down just 0.3% from 2014.

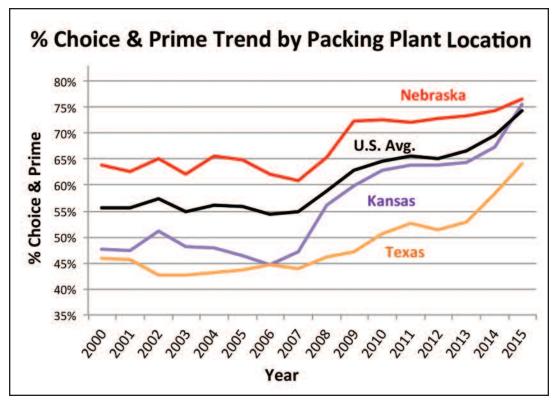
Carcass weights played "the heavy" that brought cattle prices down, diverting from an established upward trend line in July 2014 by breaking to the topside as

reduced fed-cattle numbers met runaway cattle prices. That year's fourth quarter saw a 23-lb. jump in steer and heifer carcass weights and, though 2015's first quarter saw a narrower, 15-lb. yearon-vear increase, a wider divergence built up to a seasonal fall peak when the steer carcass average reached 930 lb. mid-October.

Reduced harvest counts throughout 2015 were not simply the result of fewer available cattle. Wholesale cutout values could not hold above the \$250/cwt. mark called for by \$160/cwt. fed cattle, which put packer profits under water. That curbed their desire to bid enough to match prior-year head counts. Meanwhile, calf prices were softening but still far above breakeven for cattle feeders, so their obvious course was to add 15 or 30 days on feed to their existing inventory, given their cost-of-gain advantage. Leverage shifted in the packers' favor with the burdensome level of heavyweight cattle in late 2015, complicated by pressure from competing proteins. Healthier hogs pushed pork tonnage 6.8% above 2014, depressing annual prices by 25%, the lowest since 2009. Chicken joined in with broiler supplies up almost 5%, weights reaching a record 6.2 lb., and avian flu-induced trade barriers forcing a 12.4% decline in exports.

The positive side for beef came from carcass quality grades, 2015 being the ninth straight year with higher marbling and subsequent quality grades. Sure, the heavier carcasses and added days on feed were factors, but those would not have worked without enabling genetics from U.S. seedstock producers following demand signals from consumers. We saw more improvement in Kansas packing plants than in Nebraska or Texas, and it's been suggested southern feeders extended days on feed by up to two weeks to match northern yards.

Just 10 years ago, Kansas packers were producing 44% Choice and 1.6% Prime, on the same plane since 2000. Industry wide improvement began in 2007, but as of 2013 Kansas was still 9 percentage points behind Nebraska's



68.5% Choice grade with only half as many Primes. In 2014, the gap narrowed as Kansas moved up 3 points and Nebraska just 1. Then in 75 days from mid-March to June 1, 2015, Kansas packers surpassed Nebraska in the quality of their carcass output, averaging 75.7% Choice and Prime to Nebraska's 73.9%. Nebraska regained the lead for the rest of the year, ending at a weekly average of 72% Choice and 5.8% Prime, with Kansas a close second at 72% Choice and 4% Prime.

Kansas gets the spotlight, but Texas packers followed a similar pattern. Since 2007, Texas processors increased Choice grade by 16 points, from 44% to 62% in 2015, along with 2% Prime. USDA details only those three states, but packers in other northern states often surpass Nebraska for quality, albeit on a smaller scale.

The downside of record-breaking

weights in 2015 was more yield grade (YG) 4 and 5 carcasses. Genetic trends in beef breeds for improved yearling growth have allowed today's fed cattle to grow to heavier final weights while remaining relatively lean in terms of external fat cover. Even so, in 2015 several pens of steers finished with more than a 1,600-lb. average. These cattle were too fat in nearly every case, with extreme YG 4 and 5 percentages, often more than 50% YG 4.

USDA data shows an October YG 4 rate of just 14% and 3% YG 5s, neither apparently problematic, not in line with the examples above. But USDA data is far from comprehensive because only about 26% of fed steer and heifer carcasses are assigned a yield grade. That's because packers have largely moved away from utilizing the USDA grading service for yield grade. Instead, many are assigning their own yield grades through use

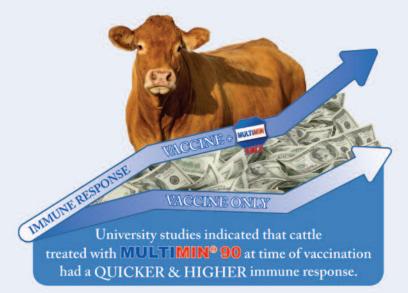
2015 U.S. Beef Production Changes

Total F.I. Harvest	-4.75%
Fed Cattle Harvest	-4.58%
Fed Cattle Carcass Lbs.	-2.10%
Steer Harvest	-0.29%
Heifer Harvest	-12.43%
Carcass Weight Avg.	+ 21 lb.
Dairy Cow Harvest	3.77%
Beef Cow Harvest	-13.20%
Total Cow Harvest	-4.33%
Prime, Lbs.	20.39%
Choice, Lbs.	3.45%
Select, Lbs.	-20.20%

of camera imaging systems and employing that data to determine appropriate premiums and discounts. Nonetheless, a high incidence of YG 4 and 5 carcasses became a problem weighing on

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CONTRAINDICATIONS: Do not use in animals that have shown hypersensitivity to florfenicol.

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Can be irritating to skin and eyes. Avoid direct contact with skin, eyes, and clothing. In case of accidental eye exposure, flush with water for 15 minutes. In case of accidental skin exposure, wash with soap and water. Remove contaminated clothing. Consult physician if irritation persists. Accidental injection of this product may cause local irritation. Consult physician immediately. The risk information provided here is not comprehensive. To learn more, talk about Norfenicol with your veterinarian.

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PRECAUTIONS: Not for use in animals intended for breeding. Effects on bovine reproductive performance, pregnancy, and lactation have not been determined. Intramuscular injection may result in local tissue reaction which persists beyond 28 days. This may result in trim loss at slaughter. Tissue reaction at injection sites other than the neck is likely to be more severe.

RESIDUE WARNINGS: Animals

intended for human consumption must not be slaughtered within 28 days of the last intramuscular treatment. Animals intended for human consumption must not be slaughtered within 33 days of subcutaneous treatment.

Not approved for use in female dairy cattle 20 months of age or older, including dry dairy cows as such use may cause drug residues in milk and/or in calves born to these cows. A withdrawal period has not been established in pre-ruminating calves. Do not use in calves to be processed for yeal.

ADVERSE REACTIONS: Inappetence, decreased water consumption, or diarrhea may occur transiently.

Manufactured by: Norbrook Laboratories Limited, Newry, BT35 6PU, Co. Down, Northern Ireland.

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The cycle turns... from previous page

the fed cattle market and red meat yield in packing plants in late 2015.

The dramatic 8-year increase in marbling levels and recent cattle feeding trends leave us with questions as to consumer demand. Will the marketplace continue to set premiums at each interval for low Choice, premium Choice and Prime? That's hard to discern, given the wide swing in total cutout value since the start of 2014. The Choice/Select spread for 2015 at \$7.53/cwt. averaged roughly \$1/cwt. (12%) lower than the year prior in the face of 3.5% more Choice tonnage. Meanwhile a 20% reduction in Select supplies netted only a 64-cent price increase. The seasonal patterns for widening and narrowing of the Choice/Select spread remained intact however, with lower peaks and a markedly lackluster performance in October and November.

Certified Angus Beef® brand premiums above the low Choice cutout were more resilient, posting an \$8.61/cwt. premium in 2015, only a penny decline from 2014. That's alongside a 1% increase in sales volume for the brand's fiscal year, totaling 896 million lb. We calculate production of Prime grade beef at a 20% increase for 2015, with a collateral \$8.90/cwt. (25%) premium decline for the Prime cutout above low Choice last year, still netting an 11% premium over Choice.

Although annual comprehensive cutout averages for the past two years are virtually identical, the 30% differential in prices throughout that period make it challenging to create smooth demand indicators. Even so, with such a qualityrich product mix in the market-place, indications are good that consumers will continue to pay a premium for quality.



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10 Lessons from Feeding Cattle

Experience is worth a lot in the cattle feeding industry. Last fall at the National Angus Convention, cattle feeders Jim Moore from Arkansas, Darrell Busby, manager of the Tri-County Steer Carcass Futurity, Kansas feeder Shane Tiffany and Justin Sexten and Paul Dykstra of Certified Angus Beef participated in a panel discussion on lessons learned from feeding cattle. Here were their top 10 points:

Moore, of Charleston, Ark., said he began retaining ownership 20 years ago to make genetic investments pay, but the pressure is greater now.

Noting he paid \$2,900 for an Angus bull in 2010 but double that in 2015, he asked, "Why pay \$6,700 for a bull if you're only going to own his calves for seven months?"

In the early 1990s, genetics were

already good enough to attract repeat buyers, Moore said, "but they just paid an average price." The first feedlot shared pen data, but lights really came on when he switched to a feedyard that sold on a grid.

"Within two years, I learned more than I had in the previous 20 years," he said. "We went through the individual carcass data with a fine-tooth comb to find our tops and bottoms for culling criteria and to see genetic needs.

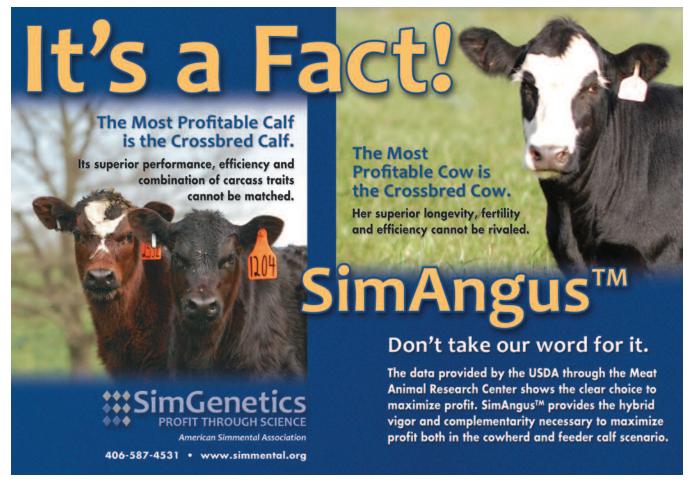
"It was like I used to tell kids when I coached baseball: 'Don't just play the game – become a student of the game.' Analyze the data. Make a better calf every year," Moore implored.

Tiffany, a partner with his brother Shawn in Tiffany Cattle Co., Herington, Kan., noted feedlots are natural partners with cowcalf producers: "We're not your enemy."

Recognizing Moore's motives in many who decide to finish calves, Tiffany addressed the next step of finding a feedlot "to trust with your life's work, a big investment." Granted, there are differences in feedlots, he said many producers have had bad experiences.

"So get customer references, go visit some yards, meet the managers and get a high level of comfortability with them, because it's a huge decision aimed at building a mutually beneficial relationship to get the most out of your calves," Tiffany said.

Some people look at the cost of gain, rations and the like, but dig deeper, he suggested. "We all use the same nutritionists – what you have to decide is, do you trust the guy?"





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FEEDLOT FOCUS

The cycle turns... from previous page

Disposition is not a convenience trait, Busby emphasized.

Other than avoiding the danger posed by wild cattle, the career Extension beef specialist said economics also favor docility.

Only an objective measure such as the Beef Improvement Federation's chute exit speed scoring can provide useful data, he said. "Self evaluation does not work well."

That's why thousands of calves fed in the Futurity are scored two or more times for disposition. Analysis on accumulated data showed wild cattle were treated less but had twice the death loss. Always alert when pen riders come by, nervous ones are easy to miss and hard to pull.

"If you have 100 heifers to work, the best plan is to track disposition by dam, but as a general rule, some of the wildest ones will be first and last," Busby said.

First-time feeders are often surprised at how "average" their cattle are, Dykstra said.

"But the average keeps moving up," he reminded the audience. "Today, 80% Choice is barely above average."

Tiffany put in that, in fact, 86% Choice was this year's average at their 15,000-head yard. Trait selection must be balanced, but producers should still prioritize.

"We need to trim off the lefthand side of the bell curve, the low outliers, more often," he said.

Single-source calves do not guarantee health, Busby said.

"We have data on 97,000 calves over 15 years, and these are mostly from small producers," he explained, "where 55% of them don't have enough to fill a pen."

In such commingled pens, respiratory disease vaccination using a modified live virus clearly beats "killed" vaccines, Busby said. For

best results, talk to your cattle feeder and veterinarian to develop an effective health plan, he advised.

"If you can't wean them at least 30 days, don't wean calves at all before sending them to the feedlot," Busby said. Tiffany agreed.

Working with hundreds of producers across half the country and even some in Canada has shown some producers cut corners and just get close to 30 days, the listed TCSCF requirement.

"One pen that had at least as much problem as unweaned had been weaned 23 days, just a week short of 30," Busby noted. Although TCSCF data doesn't provide a good read on any advantage for the industry standard 45-day weaning, the futurity manager joked that it would certainly be a better target for those inclined to cut a week off that span.

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Ranch-adapted cows can result in feedlot-adapted calves. Moore said.

"A bull contributes 50% of the genetics to each calf, but we feel the cow is a lot more than half of the key to success," he said.

Maternal traits were the primary focus, along with strategy culling based on harvest reports.

"We're not breeding for carcass quality, really," Moore said. "It's just happened. People used to say 'carcass cattle' are hard doing, but they're not."

He said a 2004 closeout found when cleaning out a desk showed 46% Choice, compared to last year's 99% Choice and 85% CAB and Prime (27%).

Moore narrowed his replacement heifer picks using GeneMax® FocusTM four years ago. In the first 17 calves from them were 9 Prime and 8 other CAB.

"They're all moderate frame and easy doing," he added. "We calve 250 in the fall and had 200 born the first 30 days."

Challenges at the ranch are challenges at the feedyard, Tiffany said.

"Sickness is the main concern. We need good communications both ways," he said. "We all have to be trustworthy to make a relationship work."

He suggested it's better to share too much than hold anything back.

"It's happened too often that we'll call and mention the ranch tag on a sick calf and hear they had to doctor him twice," Tiffany said. "Sometimes a customer will ask about a calf like that and I say please leave him home, because he'll be a bigger problem here."

Carcass data collection starts at the ranch, Tiffany pointed out, speaking of tags.

"You would be shocked at the number of guys who have wanted individual data but had no tags in their calves," he said.

Group data is still possible without tags, but "if you want to improve the herd, you really need to look at both the momma and the daddy," Tiffany said. "We'll never remove your ranch tags."

Feeding cattle should begin with a break-even calculation, Dykstra said.

"Some people don't check to see if they made money until the cattle are harvested, but you can get a better handle on risk and management if you do that at the start," he said, noting it can be fun to run the numbers.

"It's good practice to calculate break-evens, and you really ought to know the dollar implications before you commit to feeding," Dykstra added.



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- 1 Production Best Practices (PBP) to Aid in the Control of Foodborne Pathogens in Groups of Cattle. Beef Industry Food Safety Council Subcommittee on Pre-Harvest. Spring 2015. Accessed March 19, 2015.

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 3 Hutcheson D and Lallemand Animal Nutrition. Unpublished. United States. 1996.

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Silage Specifics

Choosing the right corn hybrid to plant for silage can be tricky, according to Bruce Anderson, extension forage specialist for the University of Nebraska. Qualities that make a good corn crop don't always make the best silage crop, he said. The amount of starch, protein and fiber can vary greatly depending on the hybrid.

Yield is important, but so is the entire plant in a silage situation.

In a Nebraska extension publication, Anderson said, "Historically, we thought high grain hybrids would produce the best silage, but now we know we were wrong. Characteristics good for grain, like fast kernel drying and hard texture, are bad for silage. Fortunately, genetic advances by corn breeders have helped improve silage feed value so you can select hybrids based on forage quality."

Travis Kidd, Technical Development Manager for Advanta Seeds said some hybrids will make a better silage while others will make better grain.

"Certain hybrids are shorter, some are taller, some will have more fodder," Kidd said. "A shorter hybrid will probably ton less and have a higher starch, whereas a taller hybrid will have more fodder and more fiber content versus starch."

Characteristics like digestibility are also important.

"There are different hybrids that provide more digestibility for animals," according to Kidd. "When we make silage ratings, we look at yield, protein content, starch, energy and what an animal can produce with this source of nutrition." For example, he said, how many pounds of milk per ton of silage in a dairy operation, or how many pounds of gain per ton of silage in a beef operation are considered.

Anderson said when looking at silage forage quality traits, high starch digestibility and high NDF digestibility are key.

"Starch digestibility is affected by many factors, but hybrids with soft kernel texture and slow kernel drying tend to digest easier and preserve better," according to Anderson. He explained that high fiber digestibility comes from several traits, including brown midrib. Brown midrib hybrids tend to yield less than regular hybrids, but are highly digestible by livestock.

Hybrids with soft kernel texture and slow kernel drying tend to digest easier and preserve better, Anderson said.

If planning to harvest the field for silage, Anderson said it may be profitable to sacrifice some yield for higher quality. He suggested selecting traits for the intended use of the crop.

Of course, silage can also be a

back up plan for a crop. Kidd said it could be considered a defensive position. "We're planning on grain and then a weather event occurs. Now we don't have a grain crop, but we have a silage crop."

Kidd said there are several things that can contribute to silage quality. "And number one is water. Being able to have the plant experience as little stress as possible throughout the growing season helps with silage quality overall."

Kidd said regardless of the intended purpose, matching the hybrid to the appropriate growing conditions is critical.

"Look at your own resources in terms of available moisture. How much can we afford to invest in that crop?" he said, noting it's important to know how water wells are performing on a field-by-field or farm basis.

He also suggests setting a yield goal so that the producer has the opportunity to work with an agronomist for nutrient and fertilizer recommendations.

"Producers need to know their target yield and what their environment is capable of producing with the water and soil that you have," Kidd said.

For dry land crops, sorghum is another good silage crop for livestock feed, requiring less input costs.

"Looking at water utility, guys with strong water are typically going with corn, but producers with limited access to water, sorghum is extremely successful. It's inherently drought tolerant," said Kidd.

"The Ogallala Aquifer is a finite resource. When we talk about sustainability with farmers, we like to talk about sorghum," he said. "Sorghum yields very well and the return on investment is higher with sorghum versus corn."

The ease of management is another reason sorghum is an attractive option for silage.

Regardless of corn or sorghum, consider all aspects of the crop if silage is a possibility. Contact your local seed representative for additional information on silage hybrids.

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Fighting Winter Wheat Bloat

"The hardest part about winter pasture wheat bloat is not knowing when you're going to have it," says Brian Fieser. As a beef nutritionist for ADM, he's witnessed the deceptive problem first-hand. "I can get a call with a report of bloat in cattle on one side of the fence, and cattle on the other side of the fence are fine."

Greg Highfill, Woods County Extension Educator, Ag/4-H, for Oklahoma State University Cooperative Extension, has seen the same thing. "It's a frustrating problem for producers, and researchers, because of its randomness," says Highfill. "Both sides of the problem try to get a handle on it. But it is illusive at best."

It's a costly problem. According to a Texas A&M study, wheat pasture bloat is the major non-pathogenic cause of death in the Texas stocker cattle industry, with 1-3 percent of cattle grazing winter wheat pastures succumbing to the malady.

There is no sure way to know when wheat pasture bloat will strike, but there are risk factors to consider.

"If there is anything about wheat pasture bloat that is predictable, it's time of year," says Highfill. By far the most common time for bloat to appear is when the wheat breaks out of winter dormancy and begins growing. "That's when the rapidly growing plant produces frothy bloat."

In most years, that phase begins in mid-February, but can be as late as March or as early as January, depending on winter temps.

Those first signs of the plant breaking dormancy are an indication to put out ionophore blocks, says Highfill. Fieser says a mineral with ionophore is the first line of defense, and a good management practice due to the action of ionophore in the rumen.

Highfill recommends one block for every five head of cattle, adding one additional block when each block has been half-consumed. "The problem, of course, is consumption – making sure all cattle get what they need," he cautions. Stocker cattle should receive 150-200 milligrams per head per day to effectively reduce bloat.

To further ensure all cattle are treated, Highfill recommends a medicated pre-mix or top dress for feed. "That will cover most cattle and may be more effective at managing the risk. Some strains of cattle are more susceptible. Some fields are known to create problems. If you have had problems in the past, you'll want to be more proactive."

Keeping a poloxalene product on hand, or knowing how to gain quick access, can be key to preventing a crisis. Poloxalene is the generally recommended treatment for significant bloat outbreaks. Recommended dosage is 1-2 grams per 100 pounds of body weight. Since it has no residual effect in the rumen, the additive must be consumed daily to reduce frothiness.

Fieser says by the time the first death occurs, it is definitely time to take action. "Wheat bloat is different than feedlot bloat," says Fieser. "It's slimy, not gassy, and you have to break down that foam."

Poloxalene can be an expensive solution. To control costs, producers may use poloxalene during the three to four week period of lush growth, then an ionophore during the rest of the grazing season. But beware-ionophores and poloxalene are not cleared to be fed together.

Highfill says the situation rarely gets bad enough that cattle need to be taken off wheat pasture, but that is an option in extreme cases.

Fieser says some producers will provide a dry trap or grass meadow and only allow cattle on the wheat for a short period each day, but cattle will fill up in five to eight hours," says Highfill. "So, even with minimal access, the risk remains."

Highfill says the most important thing is to have a plan. "Each producer knows his risk level, and how best to get around the problem. Analyze your situation, be proactive and get ahead of it."



Gracking the Consumer Code

Today's food supply is safer, more affordable and more available than ever before, and yet consumers are more skeptical than they've ever been. Here's what you can do.

wo trends 45 years in the making have collided, causing a ripple effect on the entire food industry, explained Charlie Arnot at last fall's Texas Cattle Feeders Association Annual Convention in San Antonio. Arnot is the CEO of the Center for Food Integrity, a national non-profit organization dedicated to building consumer trust and confidence in today's food system.

"As Americans we've been taught not to trust institutions, and [during that same time period] we have seen phenomenal consolidation, integration and application of technology in the food system. These changes have allowed us to make food safer, more available and more affordable than ever before, but it has also caused the public to now think of us as an institution — and like other institutions, now question whether or not we

are worthy of trust," Arnot said.

A communication shift has only amplified the challenge. Instead of mass communication, we now have masses of communicators.

"Rather than connecting all of us in this brand new network, the Internet has created this infinite number of tribes and special interests. Where people gather around a specific interest and communicate among themselves and it causes us to be less likely to accept information from others who don't think like us, believe like us or communicate like us," Arnot said. "We find the same thing in agriculture."

He gave an example from a recent consumer panel: They asked a young woman about GMOs. She was very concerned that they were not healthy and convinced she should avoid them. When asked what sources of information



influenced her opinion, she answered, "I am part of several mom's group. Where there is a big consensus, I think there is something here. You don't need doctors or scientists confirming it when you have hundreds of moms."

Arnot said that is the environment in which we operate today.

"We've got to figure out and understand how to best participate in the conversation," he said. "There's a lot of this mommy shaming that goes around online around food issues. Lots of 'If you don't feed the children the same way I feed my children, you are not a good mother,' and we have to be a part of that conversation as well."

Lisa, another participant on the panel, agrees mom guilt is a big factor in her decision-making process. She said if you hear a message more than once — for example, that fructose is dangerous — you owe it to yourself to research it or



just quit buying it.

Arnot said while the historical approach might have been to send Lisa links to three different independent studies that show that fructose was not a problem for her family and hope that she would become educated on the facts and that would be sufficient. But that's not likely to work in today's environment.

"A different approach might be to say, 'Lisa, we are so glad you want to be a great mom, there is no more important job than anywhere on the planet than being a good mother. We know it is confusing and challenging today to get the right information about food for you and your family. There are lots of different sources and lots of people involved in this conversation.

"How can we be a resource to you so you can make the right decisions for you and your family? How can we support you in your desire to be a good mom and make the right choices as you decide the nutritional plans for you and your family?' That approach and strategy is much more likely to be successful than simply dumping additional facts and figures on her," he said.

He went on to offer communications advice for cattle feeders, starting with embracing the skepticism.

"Don't get defensive when someone is skeptical. It's not personal. Look at it as an opportunity to engage," Arnot said.

Additionally, he recommended beginning all public engagements talking shared values.

"What are you passionate about? What are the things that are important to you? What means something to you? That is what people are interested in knowing," Arnot said. "Open the digital door to today's beef industry."

He said there are lots of ways for you to increase transparency. One example: JS West is an egg farm in California. They have cameras in their barns that are hooked to their website 24/7/365. You can go to the

JS website and watch their hens lay eggs anytime you want.

"It's not must-see TV, but it has completely opened the door."

Finally, Arnot said cattlemen have to commit to engaging early, often and consistently. This is really the opportunity you have to make a difference.

"One of the great things about farmers is we are so accustomed to fixing things in whatever the next cycle of production happens to be," Arnot said. "Right? You can change the feed ration, you can change the genetics and our expectation is that all problems can be solved with the next cycle of production. It is not going to happen with public trust. We have been getting to this position for the last 45 years, it is going to take some time to get out of it."



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Colostrum Alternatives

Colostrum is crucial for newborn calves, to provide instant energy and temporary immunity to help fight off diseases. Calves with failure of passive transfer (calves that don't receive or absorb adequate levels of antibodies from colostrum) are at greater risk for illness. Calves with failure of passive transfer have up to 6 times greater risk of death in the first three months of life.

Dr. Robert Callan, Colorado State University, says the best situation is colostrum from the calf's own mother, if possible. If not, fresh or frozen colostrum from another cow is next best. Choose a mature cow that has had several calves; she'll have higher quality colostrum than a first-calf heifer.

"Colostrum can be frozen for emergencies, and keeps very well in one-quart or one-gallon freezer bags without losing quality for at least 6 months or longer," he says. Collect some at the start of calving season and it will be fine for that year, or the next.

"Even if it's a year old, it will still be better than anything you can buy. The only thing you need to be careful about is defrosting frozen colostrum so you don't destroy antibody proteins with hot temperatures. It's best to put the package in a pan of warm water, but defrosting can be done carefully in a microwave if you make sure you don't overheat it," Callan explains.



"Some people get fresh colostrum from a local dairy, but it can contain pathogens that could be transmitted to the calf and your herd—such as bovine leukemia virus (BLV), Johne's disease, salmonella, mycoplasma bovis and other mastitis pathogens. Bringing home colostrum from a dairy is just as risky as bringing in a new animal from that dairy," he says. Biosecurity on your farm will be compromised.

Commerical colostrum supplements and replacers

"A beef calf should receive at least 100 grams of immunoglobulin (antibodies) within the first 6 to 12 hours, but preferably the first 2 hours. Recent research shows that 130 to 200 grams of immunoglobulin is optimum. When you compare colostrum supplements and replacements on the market, they contain varying amounts of immunoglobulin," he says.

"Look at the label. In general, products with less than 100 grams immunoblobulin per dose are marketed as supplements, and products with 100 grams or greater are marketed as colostrum replacers. The products with a greater amount of IgG usually cost more, but their value to the calf is worth the extra cost," he says.

Usually, the dried/powdered product is mixed with 1.5 to 2 liters of warm water. "One downside is that when you give that much to a beef calf he will be full and this may decrease his drive to nurse and bond with the dam; he may not want to nurse again for about 12 hours," says Callan.

Several studies have looked at administering colostrum supplements or replacers to calves that also nurse the dam. "In general, if the dam has satisfactory colostrum and the calf nurses vigorously, obtaining an adequate amount, there is little benefit to giving a colostrum supplement," he says.

There's some debate regarding products made from blood plasma versus the ones made from dried colostrum. "I think they both work, as long as they have an adequate amount of IgG. There are some differences in the type of immunoglobulin, but these are minor," says Callan.

"If you use a commercial colostrum product as a replacement for colostrum, have a veterinarian test the calf's blood 2 to 4 days later to see if he received adequate antibody levels. This is a simple test that measures total protein concentration in the blood, which correlates well with immunoglobulin transfer. You want to see a total protein concentration of at least 5 g/dl, with a goal of 5.5 g/dl or greater," he explains.

Geof Smith, DVM, PhD, College of Veterinary Medicine, North Carolina State University, says every beef producer should have a few bags of replacer on hand, just for emergencies. "It's a lot easier to keep a couple bags of replacer in the cabinet than to suddenly have to go looking for a source," he says.

"There is great variation in quality of products, however, and also variation in price. You usually get what you pay for. When using it as an emergency source, and only having a couple bags on hand, it makes sense to buy a good quality replacer that will do a good job," says Smith.

"I've done a lot of research on replacers; some of them seem to work fairly well and some don't. Colostrum replacers are intended to be fed instead of cow colostrum and as a rule would be much higher than colostrum supplements in terms of antibody concentration, at least 100 grams per dose," he says.

"In general there are two kinds

of replacers. One is made from plasma. The company gets cattle blood from slaughterhouses and harvests the plasma. It's a blood-based (plasma) colostrum replacer. These types of products have been on and off the market over the years because of BSE. For awhile people thought we should ban all feeding of blood-based products, but these are considered zero risk for transmission of BSE because the organism that causes BSE lives only in the brain; we don't find it in the blood," says Smith.

"The colostrum replacers are an acellular product, meaning there's not even any cells in them; the manufacturers spin off the plasma and use it. In terms of disease risk, it would be very low. Also, they irradiate it, which would kill any bacteria or viruses." The radiation will kill the pathogens but does not harm the antibodies. Excessive heating is what destroys antibodies.

The other type of replacer is made from bovine colostrum purchased from dairies. "The companies make sure it is high quality and dry it into a powder and irradiate it to kill any pathogens. They contract with dairies and make sure the cows are properly vaccinated, to have antibodies against all the major diseases the calves might be exposed to," explains Smith.

When choosing a replacer, select one that has been tested and performs well. "What we found



through research is that antibody level is not always the determining factor on how effective it is. We first tried to figure out how much antibody should be in a colostrum replacer, but we tested some replacers that had about 100 grams of IgG and worked fairly well and tested others with much higher levels of IgG (150 to 180 grams) that didn't work as well to protect the calves. So it's not as simple as just

looking at the numbers," he says.

"There may be differences in absorption of the IgG by the calf. With some products the calves seem to absorb these fairly well, and others not so much. We don't know why, but it may be differences in the manufacturing of those products between companies. I recommend using a product that has been tested, that you know has worked," he says.



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Winston Churchill was admired for his persistence and optimism regardless of the circumstances. He was quoted as saving, "Success consists of going from failure to failure without a loss of enthusiasm." Tough times can sap anyone's energy and challenge their passion if they aren't protective of their daily attitude.

I once had a dairy farmer in Texas share that during a time when they were going through challenging market conditions, he realized that he was being a bit testy with his employees and overly demanding. He decided that since he had one of the best parlor managers in the industry, he should just keep out of that area for a while and focus on other parts of the business that actually needed his attention. After two weeks he decided to revisit the parlor and upon meeting the manager there, the manager told him, "Hey... we noticed that you haven't been down here for a couple weeks. The employees and I just wanted to say... Thanks!" He got the message and learned a valuable lesson the affect that his attitude had on his employees.

During tough financial situations, it is important to realize that our emotional state can determine the attitude of everyone else in the business. True, they should be able to manage their own emotions, but when they are looking to the boss for leadership they will follow their bosses' lead concerning attitudes as well.

Studies show that employers and employees both have fears during tough times, but that those fears are different. Employers fear that the employees may learn too much information—or incorrect informationabout the situation, that their best employees may leave, and that employee morale is worse than

Employees fear losing their jobs, the well-being of their coworkers and their employer, and have a general fear of the unknown. For this reason, employers need to be as open and honest as possible

it actually is.







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with employees, be fair to all employees, find ways to reduce employee stress and make sure that family members are treated equitably as well.

Every type of agricultural production goes through cycles. It's the nature of commodity production. The challenge is to maintain the same level of focus and perspective when prices are high as when they are lower.

Key points to remember:

- You set the tone of the entire operation. If you are focused and positive, your employees will tend to follow suit. Avoid the tendency to complain daily about markets, costs, personal frustrations or other woes that your employees cannot have any affect on.
- Challenges build teamwork and camaraderie. Watch to see who is invested in the team and which employees just look out for themselves in tough times. A good friend of mine who was a fighter pilot in the Viet Nam War once told me, "Nothing builds camaraderie more than being shot down in the same airplane." If people can't work together during

challenging times, they may never understand what it means to be a part of a team.

- True loyalty also reveals itself during these times, so make a note of those who stick with you and raise their own performance level. In the long run, these emplovees are worth a greater investment of your time and developmental resources.
- The lessons learned during these times need to be recorded and shared with future generations. Take a few notes and be willing to share them when the time is appropriate.

One of my most interesting clients once said, "Never pay tuition twice for the same class." He knew the cost of not learning important lessons in a timely fashion so that they were never repeated. The wisdom that he gained during all economic cycles was woven into his daily decisions and he became an industry leader that many others admired.

For assistance with these and other employee management issues contact Don Tyler; Tyler & Associates, at 765-523-3259 or e-mail: don@dontyler.com



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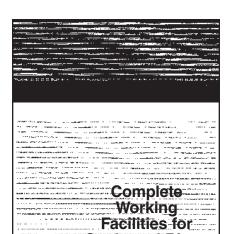


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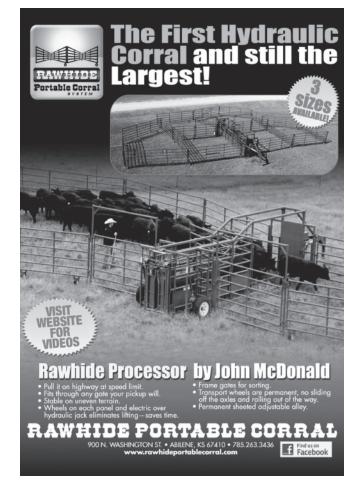
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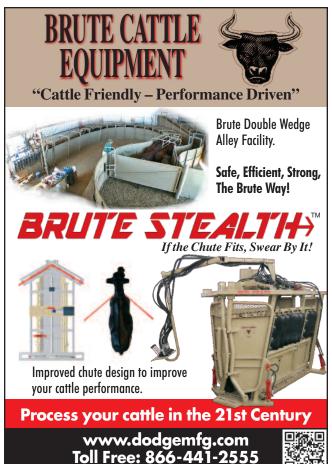




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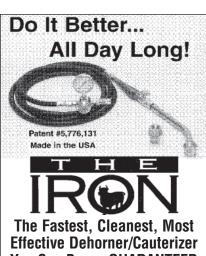
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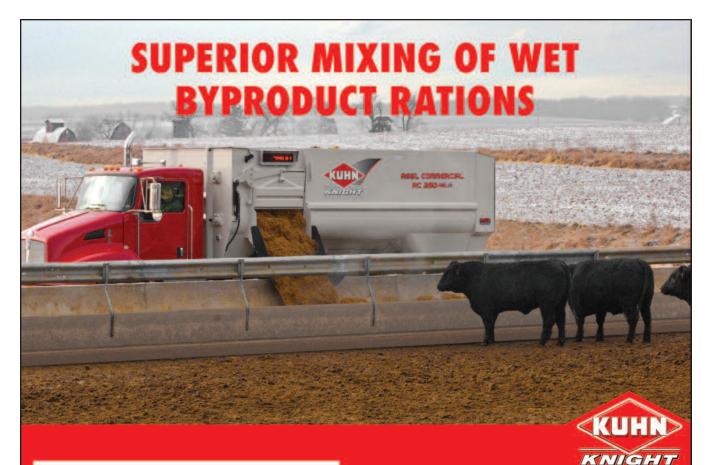
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