

FEEDLOT[®]



FEEDER INFORMATION HIGHLIGHTS

Volume XXIV Number 2

March 2016

Feedlot Focus

- Good or bad
- For good feedyard results, buy good calves
- Better understanding of the gut health challenge

Management/Marketing

- The Beef Industry Long Range Plan
- An IOU to the IRS
- Employee Onboarding

Stocker Special

- 10 tips for drafting a grazing lease

Cow Calf Corner

- Injectable minerals for developing bulls



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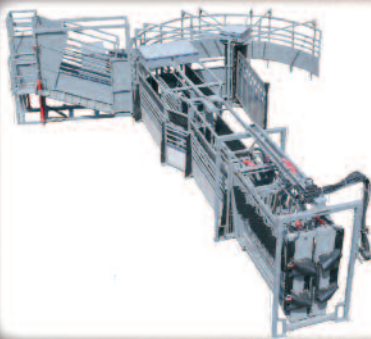
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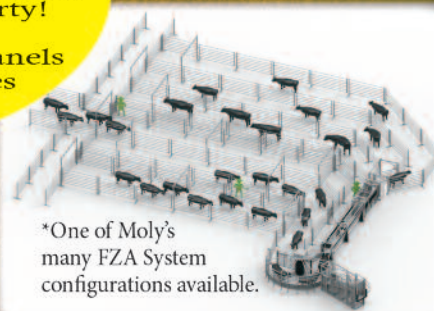
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THE PLAN

We all have one of some sort, whether it's the plan for retirement at a certain age, the plan for your business or just the plan to get certain pens of cattle worked on a given day. Without a plan we are lost and amble around aimlessly.

The beef industry develops a long range plan every five years. Last year, 16 industry experts came together to develop "The Plan." No doubt about it, the 2016-2020 Beef Industry Long Range Plan is an aggressive one.

Many meetings, conference calls, webinars and emails later, the group emerged with a plan for the next five years. Although the Beef Industry's Long Range Plan is multi-faceted, it centers around one primary goal – to increase the wholesale beef demand index by two percent annually or 10% total over the next five years. That goal gives an objective number that the industry can measure and determine the success of the plan.

"If we don't have demand for our product, we are lost," said planning committee member Jerry Bohn, manager of Pratt Feeders in Pratt, Kansas. "We came up with an aggressive goal for growing wholesale beef demand. It's hard when beef is high and pork and poultry are champ, and the dollar value has limited our exports."

John Butler, CEO of the Beef

Marketing Group said he hopes the plan is the defining moment of the future for the industry. "Going into 2016, you're going to see some divergence from where we've been before," he said. "We want to be known for responsibly producing the most trusted and preferred protein in the world."

In order to grow demand, the task force developed four core areas to be committed and take action. These include: drive growth in beef exports; protect and enhance the business and political climate for beef; grow consumer trust in beef and beef production; and promote and strengthen beef's value proposition.

The hours to put the plan in place are minimal compared to the hours needed to carry it out. And we all must do our part. From the seedstock producer and cow-calf guy, to preconditioners, stockers and backgrounders, feedlots and packers, we must all work together. Donnell Brown of R.A. Brown Ranch offers some insight on how individuals can help put the plan in action. I encourage you to read the plan and consider Brown's suggestions. After all, the plan is a lost cause if no one puts it into action.

For more information on the Long Range Plan and its core strategies, visit www.beef.org/beefindustry/longrangeplan.aspx. **FL**

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GOOD OR BAD

The NPDES Permit

By the end of last year, nearly half of Iowa's livestock feeding operations had undergone an environmental compliance inspection under an agreement between the Environmental Protection Agency and the Iowa Department of Natural Resources. That made feedlot inspections and permits a hot topic at the Iowa Cattlemen's Association convention held in Des Moines in December.

"A good relationship between the DNR and the ICA is a priority for cattlemen," said Bill Couser of Couser Cattle Company near Nevada, Iowa, who moderated a panel discussion focused on the pros and cons of obtaining a federal NPDES permit. "We want a relationship where we can talk and work together." He adds the DNR has shifted its focus from "find and fine" to helping producers comply with regulations, often giving up to two years to make necessary improvements without risk of citation. "We all want to know what we need to do to comply and stay profitable."

Seated on the panel were Mike Sexton, owner and operator of Twin Lakes Environmental Services and Iowa State Representative; David Trowbridge, manager of Gregory Feedyards of Tabor, Iowa, and Southwest Regional Vice President of ICA; Ed Greiman, partner in Greiman Brothers Feedyard of Garner, Iowa, and past ICA president; and Ken Hessenius, Environmental Program Supervisor with the Iowa DNR.

The National Pollutant Discharge Elimination System permit

is a license for a facility to discharge a specified amount of a pollutant into a receiving water under certain conditions. Permits may also authorize facilities to process, incinerate, landfill or beneficially use sewage sludge. Through the program created under the 1972 Clean Water Act, the EPA authorizes state agencies to grant and enforce the permits.

It is designed as a tool to manage feedlot manure and effluence. While it offers certain protections, it requires additional compliance measures and record keeping.

"It you want to grow or expand, or if you are in a challenged area, it's something you may consider," said Couser. "Water quality is a huge issue, and as producers, we want to be preemptive."

Gregory Feedyards is an NPDES permitted facility with a 5,500 head yard and a 2,000 head yard. It utilizes a VTA (vegetative treatment area) system. Drainage runs into settling basins, then the liquid is piped onto 40 acres of grassland. "It only requires us to handle solids, a huge convenience for us," said Trowbridge. Those solids are utilized as fertilizer on 4,000 acres of adjoining cropland.

The NPDES permit allows for discharge during extreme weather events, a feature that aids Gregory Feedyards in its manure management. "The first year we had two 8-inch rains," said Trowbridge. "This year we had a 7-inch rain. We needed that emergency release."

"The permit provides protection for the producer under those circumstances," said Hessenius. Producers

are protected for a 25-year/24 hour rain, as well as a chronic rain event – substantial rains days at a time.

"There are people out there watching," said Hessenius. "Environmental groups are buzzing around our office and around your farm just waiting to sue somebody if run-off gets out of control." The NPDES permit offers protection from legal action in such cases. "As long as you're following the permit. You're protected."

For some producers, the extra time and cost of compliance does not seem worth the effort, despite the protections it affords. Trowbridge admitted they devote a great deal of time to detailed record keeping, including test well monitoring.

And of course, there are considerable construction costs, even for a more conventional system. "It's not the permit that provides the environmental protection," said Couser. "It's the control structures needed to get the permit."

Hessenius said a feedyard with more than 1,000 head with a Manure Management Plan has already completed 70 percent of what is needed to obtain the permit.

Still, for Greiman, the permit does not seem like a necessity. His cattle feeding operation is scattered across four sites, built in different decades beginning in 1960. It's a combination of open pens and partial cover. "When we made our latest improvements, we put together the required construction plan, looking at potential run-off from the lots and feed storage areas. We intended to get an NPDES

permit,” explained Greiman. “But we were told it didn’t look like we needed one. Of course we held on to that email.”

But they proceeded without it. “We went ahead and build all the controls as if we had one. But it made it cheaper to do without.”

Greiman and Couser both said a feeder’s approach to manure management should be based on common sense. “If you’ve fed cattle there for years and can honestly say the run-off drains into 80 acres of cropland with no access to an intake or a waterway, then you should be OK. If you can look out and see an area that water runs into and nothing seems to want to grow, you have a problem.”

Both men emphasized the need to have “another set of eyes” on the situation.

That’s Sexton’s job. “It’s all about the water. It’s all about the run-off,” said Sexton. “If it leaves

“It’s not the permit that provides the environmental protection. It’s the control structures needed to get the permit.”

— Bill Couser of Couser Cattle Company

your yard and enters a road ditch or creek, we need to talk.”

“I had an area where cows came up to the bunk for winter feeding,” said Greiman. “I didn’t think I needed to do anything with it. Mike took one look and said, ‘Ed, it looks like a feedlot. It smells like a feedlot. Maybe you need to do something.’”

Sexton said it is important to know where your water goes, as there is no hiding in today’s age of technology and aerial imagery.

Hessenius readily agreed. “We pretty much know what’s going on even before we get to the site.”

The panelists added it is not

enough to merely obtain a permit; the producer needs to fully understand what is required. “When a producer understands why things need to be done, that should help understand and accept the importance of meeting the requirements of a permit,” says Couser.

“It’s really all about you,” said Sexton. “Walk around your feedlot. Know what’s happening there.”

Trowbridge added it is important to consult with those who can help, and consider all options. “We thought we were doing a good job before,” he said. “Now we know we are.”

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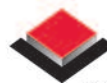
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The Beef Industry Long Range Plan: Be Part of the Solution

With a mission in hand, 16 members of a beef industry task force set forth with the vision of planning how “to responsibly produce the most trusted and preferred protein in the world.” Many meetings, conference calls, webinars and emails later, the group emerged with a plan for the next five years. Although the Beef Industry’s Long Range Plan is multi-faceted, it centers around one primary goal – to increase the wholesale beef demand index by two percent annually or 10% total over the next five years. That goal gives an objective number that the industry can measure and determine the success of the plan.

“If we don’t have demand for our product, we are lost,” said planning committee member Jerry Bohn, manager of Pratt Feeders in Pratt, Kansas. “We came up with an aggressive goal for growing wholesale beef demand. It’s hard when beef is high and pork and poultry are champ, and the dollar value is limited our exports.”

John Butler, CEO of the Beef Marketing Group said he hopes the plan is the defining moment of the future for the industry. “Going into 2016, you’re going to see some divergence from where we’ve been before,” he said. “We want to be

known for responsibly producing the most trusted and preferred protein in the world.”

But what can individuals in the industry do to help see the plan through? Donnell Brown of R.A. Brown

Ranch also served on the task force and said there are multiple ways individuals can help the plan reach fruition. One way is to be part of the solution and become active in local, state and national organizations.

“Become engaged and involved,” he said. “Let these organizations know you are interested. Serve on committees. Working collectively as a group with a leadership structure, we can make our efforts so much stronger.” From there, he encouraged cattlemen to take the message back to their home state, region and county cattlemen’s organizations to engage local people and share the message.

Another way individuals can take part is becoming engaged in social media. “We felt it was an important part of the plan to better communicate with people who don’t have manure on their boots,” Brown said. “This is something producers can do at home, over a cup of coffee in the morning or whenever they sit down at their computer. Even if you can’t get away to be at an industry meeting, you can be a voice for the industry from your home computer or smart phone. Every family in the business can be a part of the solution this way.”

Brown said helping to educate the public is a great way to drive demand with a generation that is very active on the web. “My wife is posting photos of meals we have, and she’s sharing recipes, taking pictures of our cattle, the great home these cattle have, and sharing the livelihood we have chosen as caretakers.”

Another grassroots way individuals can be involved is through traceability systems. Many countries have traceability, and the task force said that is one area that is holding the United States back in terms of export options.

“It’s happening every day that we can’t get into markets because other competing countries have traceability where they can identify their animals and we do not,” Butler said. “If you look at growth in those countries, it’s tremendous, and at our expense.”

Brown said he is not in favor of a mandatory program, but has been a proponent of voluntary traceability systems as long as he can remember.

“Reality is we need more people to volunteer to do that. By providing a traceability system, we can open up our export markets. We don’t have a critical mass of traceable cattle to provide for those markets that are demanding it,” he said.

Brown believes large acceptance of a voluntary traceability system will take a paradigm shift in the industry. “Our lifestyle is made up of people who love our independence, and some see traceability as giving up that independence. I see it as opening up new markets and providing new opportunities.”

By participating in a voluntary traceability program, producers are able to document health and treatment protocols, which further goes to grow consumer trust. Brown said another byproduct of traceability is the flow of information to and from the producer. The feedback helps producers analyze their operation and determine how they can produce a better product, more efficiently.

Although he doesn’t anticipate every producer to jump on the traceability bandwagon, he said if a significant number participated it could make a difference in beef demand. “Even if it’s just 20% of the population, and we can take those cattle to an export market overseas, that would really grow our market for U.S. beef.”

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At every stage of the beef production chain, profits depend on the absence of disease, and the calf's ability to grow and gain. And that depends on getting things off to a good start.

"Health is so important to profit in the feedyard," says Hilton. "I've seen too many places start with a high-risk calf (unweaned, unvaccinated, uncastrated). All those things are a risk of that animal getting sick in the feedlot." Studies show weaning is the most crucial of all the preconditioning elements, with non-weaned calves coming into the feedyard 3.4 times more likely to get sick, according to TCSCF data.

Hilton says health starts before

entering the feedlot, even before weaning. Health starts the day the calf is conceived.

Precalving nutrition sets the trend. "You can't cheat the cow at any time," says Hilton. Seventy-five percent of a calf's growth occurs during the last two months of gestation. "But that doesn't mean you can discount the early stages of development." That time of organ and placenta development are just as important. Research shows shorting the cow of nutrition early in the gestation period can hamper calf lung development, leaving it predisposed to BRD 18 months later.

"When you're buying feeder calves, wouldn't it be nice to know the nutritional program of the dam?" asks Hilton, as he cites research that shows calves with adequate protein during gestation and ample high-quality colostrum are three times less likely to have BRD in the feedlot.

The dam's vaccination program is also a factor, as is parasite control. The healthier the dam, the healthier the calf. Hilton says a heifer should have a body condition score of 6.5-7, cows 5.5-6, at the

time of calving.

Calving conditions are also a factor in future calf development. Timing matters, with many producers "fighting nature" by calving in unfavorable weather. Hilton suggests abandoning tradition to calve at a time



when the calf has the optimal chance for survival for the region.

Newborn calves also need protection from contamination. "The worst thing that can happen is a barn where cows and calves are allowed free access," says Hilton. "That's a recipe for disaster." Even with the weather risks, calving outdoors is preferred for reducing risk of contamination from other animals. He recommends the Sandhills Calving System, which utilizes a rotational calving pasture pattern where cows with calves stay in their calving pasture and cows yet to calve are moved to a new pasture every 7-14 days.

"Every calf deserves the chance to be born into a clean environment," says Hilton. "The goal is ZERO sickness."

And of course genetics matter. Heterosis is 6.1 percent for calf vigor, 3.9 for weaning weight, emphasizing the benefits of a cross-bred calf.

Genetic improvements have drastically increased a cow or heifer's ability to produce milk, but that output requires adequate nutrition. Byproducts and hay can make great foodstuffs, but testing hay is vital.

While the feedyard or the stocker naturally wants to purchase calves at the lowest possible price, Hilton says it pays to buy calves

Difference in dollars returned per head relative to the number of treatments (2014)

		Number of treatments		
		NT	ST	2T
Death loss discount*, \$	PAR		-\$54.91	-\$216.85
Treatment cost**, \$	PAR		-\$25.16	-\$94.28
ADG Bonus#, \$	PAR		-\$34.56	-\$68.74
Yield grade premium, \$	PAR		+\$1.62	+\$4.03
Quality grade discount, \$	PAR		-\$5.35	-\$14.29
Light carcass discount, \$	PAR		-\$1.61	-\$4.69
Dark cutter adjustment, \$	PAR		+\$0.05	-\$0.19
Total difference, \$	PAR		-\$119.92	-\$365.01

*Accounts for cost of gain investment and lost carcass value.

**Includes medicine, labor and chute/equipment charges.

#Based on additional carcass weight gained during the feeding period.





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with a resume. Genetics, handling, vaccination and nutrition programs (vaccination programs that include modified live vaccines are best), should be part of the cow/calf producer's marketing plan. And the feeding sector of the business should expect and require

it. "The feedyard needs to know if the calf will perform and grade," says Hilton.

Calves that are well fed and come from a healthy environment pay all around, says Hilton. The cow/calf producer is able to market a more profitable calf, and the feedyard and stockers are able to capitalize on the good start.

Hilton says today's genetics should enable a calf to gain three pounds per day in optimal conditions, and as every feedyard operator knows, pounds pay. So does efficiency, making the calf's feed efficiency numbers a crucial part of the equation.

The line-up of desirable traits includes disposition. Research by TCSCF has shown disposition impacts average daily gain. Wild, overly active calves burn off calories.

"The bottom line is calves need the genetics and nutrition to gain," says Hilton. "The feedyard doesn't

get paid for maintenance."

"We have control over genetics. We have control over nutrition. We even have some control over the environment calves are raised in," continues Hilton, "and all that makes a difference in profits."

Buying preconditioned calves means less antibiotic use, improved beef quality assurance, improved carcass quality and decreased labor at the feedyard. Data from TCSCF and the Ranch to Rail Feeding Program show higher quality calves do a better job.

Most importantly, the stocker and feedyard should demand verification of the preconditioning program, and avoid buying animals without it.

"Finding suppliers that "do all of the above," who feed a healthy, profitable calf," says Hilton, "will improve feedlot profit and produce the best possible product for the consumer."

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BY MARK E. BATTERSBY

AN I.O.U. FOR THE IRS

Although the last bill anyone should ignore is a tax bill that is exactly what some feedlot operators think about doing. Fortunately, there are a number of legitimate procedures for requesting additional time to pay as well as installment payment arrangements to avoid the IRS's collection process (liens, property seizures, etc.) against the feedlot business – or its operators.

While the IRS is only too happy calculate the penalties and interest for all unpaid tax bills, there are in general, three separate penalties. The “failure to file” penalty accrues at the rate of five percent per month (to a maximum of 25%) on the amount of tax the return should show as owed. The “failure to pay” penalty is somewhat gentler, accruing at the rate of one half of one percent per month (to a maximum of 25%) on the actual amount owed.

If both penalties apply, the failure to file penalty drops to 4.5 percent per month, with a total combined penalty of five percent. The maximum combined penalty for the first five months is 25 percent while the failure to pay penalty continues at one-half of one percent per month. In total, these combined penalties can reach 47.5 percent of the unpaid tax liability in less than five years.

And don't forget, both of these penalties are in addition to interest charged for all late payments and missed estimated tax payments,

interest which is computed at three percent above the fluctuating federal short-term interest rate until the IRS is in possession of all amount due.

Given the rate at which penalties and interest grow it is no surprise that some feedlots and their operators borrow the funds needed to pay their taxes. After all, the rate of interest paid to a family member, or even to a bank, is usually less than that charged by the IRS.

Similarly, there are a number of advantages to paying taxes by credit card, including the fact that it is convenient. Credit card loans are however, likely to carry high rates of interest, interest that is not tax deductible. The IRS does not pay or reimburse “convenience fees,” but they are deductible as business and individual expense.

Under some circumstances, procrastination might be advisable. A short-term (120 day) extension may be arranged that gives a feedlot or its operator up to 120 days to pay. No fee is charged, but the late-payment penalty plus interest will apply.

An extension of time to pay is also available to those able to show that payment would cause “undue hardship.” Qualifying for an undue hardship extension means an extra six months in which to pay the tax shown as due on the tax return. The failure to pay penalty will be avoided although interest will still be charged.

Surprisingly, the IRS will often accept installment payments for some tax debts – if \$25,000 or less. In fact, the IRS is required to enter into a “guaranteed installment agreement,” where the tax liability is \$10,000 or less.

Like any creditor, the IRS prefers a partial payment to no payment at all. Thus, the IRS is often willing to settle a tax bill for less than the full amount if: (a) the owner or the feedlot business are unable to pay the full amount, (b) there is doubt as to how much the tax liability is, (c) collection of the liability would create economic hardship, or (d) due to exceptional circumstances (such as a medical condition that prevents proper management of financial affairs, or reliance on erroneous advice from the IRS).

It should also be kept in mind that negotiating is an acceptable practice when it comes to tax bills. A so-called “Offer-in-Compromise” has allowed many feedlots and their owner/operators to settle their tax debts for a fraction of face value. It cannot, however, be requested beforehand.

No feedlot, stocker, cow-calf operation or operator should allow an inability to pay their tax liability in full keep them from filing all tax returns properly and on time. The complexity of the tax rules and the many options available to every feedlot and business owner unable to pay their tax bills obviously require professional guidance. **FL**



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BETTER UNDERSTANDING OF THE GUT HEALTH CHALLENGE

Each year, tens of thousands of young calves are received at feedlots and the challenges begin. Pre-receiving environment and management, health status, weather and feed quality can all influence on the calves' start. Hospital pens are prepped, medical supplies ordered and pen riders are prepared to start working with calves that begin to have health issues and fall behind.

Many of the health issues at the onset of the feedlot phase are opportunistic and magnify themselves due to the fact that the calf's system has been lowered to a point of little defense to these health challenges. This defense primarily hinges on gut health. Because nearly 80 percent of the calf's immune system is located in the gut, a compromised gut will compromise overall health and immune status.

One of the factors that can have a significant impact on gut health is mycotoxins, particularly those produced by *Fusarium* and *Penicillium* molds. These molds can produce mycotoxins that can not only decrease dry matter intake (DMI) and weight gain, but also can have a significant impact on rumen function and gut health.

Molds and the Mycotoxins They Produce

***Fusarium*:** DON, 3-AcDon, 15-AcDon, DON-3-Glucoside, Nivalenol, Fusarenol X, T2, HT2, DAS, Neosolaniol, Fusaric Acid

***Penicillium*:** Patulin, Mycophenolic Acid, Roquefortine C, Penicillic Acid, Wortmannin

Mycotoxins produced by *Fusariums* can decrease DMI, lower gain, impact rumen function, reduce microbial protein, cause gut irritation with poor gut wall integrity and diminish immune response. *Penicilliums* can impact rumen function by altering microbial concentrations, decreasing DMI and gain and producing digestive disorders and lower immune response.

According to the 2015 Alltech North America Harvest Analysis recently conducted, corn silage is showing a greater percentage of samples with *Fusarium* and *Penicillium*-produced mycotoxins. More than 86 percent of the corn silage samples analyzed to date for the 2015 crop are at a high risk to calf health and performance. Corn grain is at a slightly less risk but can bring *Fusarium*-produced mycotoxins into the TMR.

It is often stated that mycotoxins do not pose a serious risk to beef cattle because they can break down the mycotoxins in the rumen. Beef cattle do have the ability to break down mycotoxins, but their system will not be able to break down higher levels and significant amounts of complex mixtures of mycotoxins. The mycotoxins are broken down by protozoa.

Protozoa do many things from a nutritional standpoint such as break down fiber, cellulose, starch, etc. If protozoa are working to break down mycotoxins, they are not available to perform nutritional tasks. Each separate mycotoxin requires specific protozoa to decompose and many times, particularly in younger, more immature cattle, these required protozoa are not present in an adequate concentration to be effective in controlling mycotoxins. In many cases, once these protozoa attack mycotoxins, their populations are reduced and very difficult to restore.

Once in the lower gut, *Fusarium* mycotoxins will remove the mucin layer, which is the protective covering for the gut wall. *Fusarium* will then begin to ulcerate the gut wall, and villi will become

irritated and broken. This provides pathogens a direct opening to the bloodstream, so that a lower pathogen level now becomes a more significant level.

The lowering of immune response is the lowering of the calf's ability to fend off opportunistic health challenges. These calves may also not respond as well to vaccinations and normal health treatment protocols. This is shown when calves require multiple health treatments and need second and third pulls or spend extra time in the hospital pen.

Calf challenges such as these can be improved when a proper management program is put into place. Feedstuffs and total mixed rations should be analyzed for mycotoxins, through a program such as the Alltech 37+® mycotoxin analysis. The laboratory can detect for more than 38 individual mycotoxins and identify mycotoxins that are conjugated or "masked."

Some common practices for dealing with a mycotoxin issue in feed:

1. Eliminate the suspected source of the mycotoxin (e.g., silage, haylage, whole cottonseed, almond hulls, etc.).
2. Add mold inhibition products (i.e., use of fungicides or mold inhibitors on the total mixed ration or corn silage).
3. Use mycotoxin sequestering agents in the feed. In many cases, the use of sequestering agent products results in the clinical and/or subclinical symptoms disappearing, and begins the progression of the affected animals or herd returning to normal.

Most mycotoxin problems go undiagnosed due to lack of perseverance or a lack of records and analyses that may be used for diagnostic purposes. The management team at the feedlot must be willing to cooperate with each other. One of the most important factors is good recordkeeping. Feed and

ingredient analysis records are of the utmost importance in determination of the cause and source of a case of mycotoxicosis.

Finally, feedlot managers should consider what is going on in the gastrointestinal tract. Any damage done to the GI tract by molds and mycotoxins may alter the beneficial microflora and immune system enough to make an animal more susceptible to infection by pathogenic organisms. It may be beneficial to feed a prebiotic and probiotic to help restore the gut and optimize performance.

If the immune system has been compromised, the herd's diet may need to be adjusted to help restore maximum immune function. It may be necessary to adjust vitamin and trace mineral levels for a period of time. Products like organic trace elements, selenium yeast, higher vitamin E levels and the addition of additional yeast culture to the diet should be considered. **FL**

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BRIEF SUMMARY (For full Prescribing Information, see package insert.)

INDICATIONS: Norfenicol is indicated for treatment of bovine respiratory disease (BRD) associated with *Mannheimia haemolytica*, *Pasteurella multocida*, and *Histophilus somni*, and for the treatment of foot rot. Also, it is indicated for control of respiratory disease in cattle at high risk of developing BRD associated with *M. haemolytica*, *P. multocida*, and *H. somni*.

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

NOT FOR HUMAN USE.

KEEP OUT OF REACH OF CHILDREN.

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.

For customer service, adverse effects reporting, or to obtain a copy of the MSDS or FDA-approved package insert, call 1-866-591-5777.

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 veal.

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

Manufactured by:
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10 Tips for Drafting a Grazing Lease

No matter which side of the lease you're on, it's important to protect yourself. And while Tiffany Dowell Lashmet says there's no one-size-fits-all contract and stresses the importance of consulting your own attorney, she shared some general tips at the Cattle Trails Cow-Calf Conference in Wichita Falls, Texas.

At the event, the assistant professor and Extension specialist in agricultural law said while an oral agreement and a handshake might be the most common contract, it's never the best option. For one, a lease of real estate for longer than one year is not enforceable unless in it is writing.

But what makes a good lease? Lashmet offered the following terms to consider:

- 1. Rent.** How much will be owed and when?
- 2. Thorough description of the lease subject.** Are certain areas excluded? Will the stocking rate be limited?
- 3. Animal care requirement.** Spell out specifically to protect both parties.
- 4. Right of inspection.** Unless specified, the landowner gives up his right to enter. However, the

lease can include that he would be able to enter to perform repairs or for other reasons.

5. Liability and indemnification. This statement assures if there are damages caused by or lawsuits against either party, only that party will be held responsible.

6. Maintenance of fixed assets. Who will pay to maintain fences, barns, well pumps, etc?

7. Status of the mineral estate. Who owns the mineral estate? This is especially important since a mineral owner has the right to use as much of the surface estate as reasonably necessary for production.

8. Disaster contingencies. Spell out what will happen in case a drought or fire destroys the grass.

9. Include common legal provisions. These can include which state's laws the contract falls under, or where disputes should be heard.

10. Have an attorney review any lease before you sign on the dotted line. Remember, this is a business deal and should be treated as such. **FL**

For more tips and news on ag law, follow Lashmet's blog at www.agrilife.org/texasaglaw.

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BY DON TYLER

Employee Onboarding



Each business has its own unique challenges in getting employees off to a great start. Some businesses don't hire new people very often because they have low turnover or they simply don't need to hire many people due to their size. Both can benefit from a structured onboarding plan.

On an employee's first day the manager needs to ensure that all documentation is in order and

signed such as I-9's, W-4's, Employee Data Sheets, payroll information, the Employee Handbook, Job Description, etc. It is also crucial that they be provided the proper safety training to ensure that they are aware of and trained in all hazards in the operation that they might be exposed to. Some operations may also have tenant agreements to sign and deposits to collect.

The new employee's coworkers

are vital to that employee's success as well. The faster that they help that employee get settled into their role and responsibilities, the sooner the department is running at full speed and efficiency. Existing employees can start by helping the new person feel comfortable with the layout of the operation, the timing of breaks and lunch periods, where the restrooms are located, where to put their lunch and personal items, and the seniority for use of the microwave.

I hear from new employees all the time that they were "just thrown to the wolves" on their first day and wished that someone in the operation would have been more helpful. If a new employee gets off to this type of start in their attitude and satisfaction, we are always playing catch-up in these areas. Having a clear process for onboarding can eliminate these feelings and provide a healthy and productive atmosphere from the first day.

One great thing for the main manager of the operation to do is have daily contact with new employees. The manager should make it a point to touch base with new employees for a few minutes every day for the first few days, and then two to three times a week for the next two weeks. This gives the employee a sense of connection and loyalty with the entire company, rather than just a few of their co-workers.

A Hot Item for Feedyards This Year

Add Fat or Molasses to the Ration

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 chamber is the bottom of the storage tank, it is sloped so all fine solids flow with gravity out the bottom with the liquid ingredients.



Here's what nutritionists say:

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Training should be organized and methodical as well. New employees should always be paired with the most experienced, loyal employees to ensure they are getting the correct information from a reliable source. It builds the employee's confidence and helps them feel that this operation takes training seriously and professionally.

It is frustrating when I hear that new employees are told on their first day, sometimes even by the manager, about problems with their co-workers, conflict between departments, frustrations with ownership, etc. This does extensive harm to the overall work atmosphere and the attitude of this new employee. Managers should avoid personal biases such as, "You'll be working

with John. I think he's a pain, but he seems to get along with most people." Or, "You need to know right from the start that the Shop Foreman and the Mill Manager are always at each other's throats." These comments are counter-productive and sound more like gossip than training. If I were a new employee hearing this, I would be very cautious about what I shared with my coworkers or my boss. It would also be hard for me to trust anyone in this operation for a long time.

It is crucial to stress to the entire staff that everyone has a role to play in getting employees off to a great start, and when this happens, everyone wins. **FL**

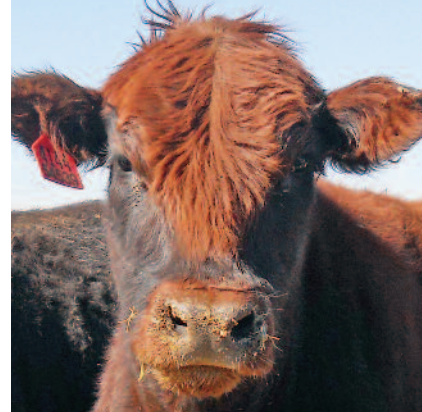
For assistance with these and other employee management issues contact Don Tyler; Tyler & Associates, at 765-523-3259 or e-mail: don@dontyler.com

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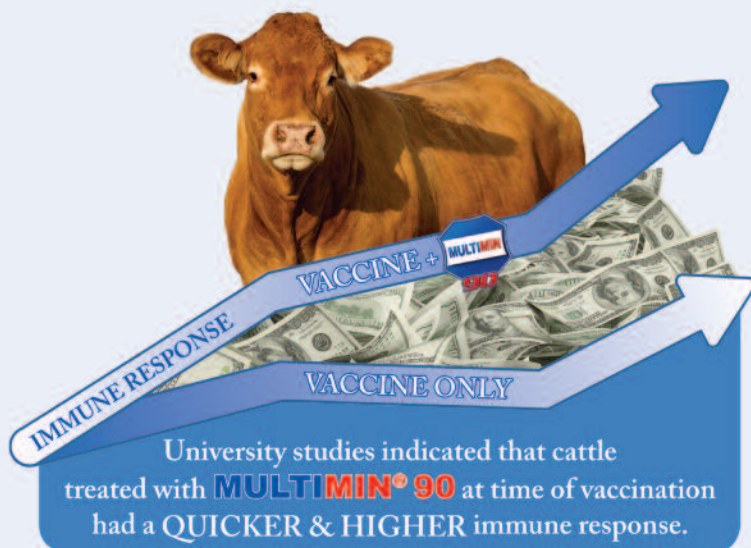
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For subcutaneous injection in beef and non-lactating dairy cattle only. Not for use in female dairy cattle 20 months of age or older or in calves to be processed for veal.

Caution: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

READ ENTIRE BROCHURE CAREFULLY BEFORE USING THIS PRODUCT.

INDICATIONS

ZACTRAN is indicated for the treatment of bovine respiratory disease (BRD) associated with *Mannheimia haemolytica*, *Pasteurella multocida*, *Histophilus somni* and *Mycoplasma 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 *Mannheimia haemolytica* and *Pasteurella multocida*.

CONTRAINDICATIONS

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 veal.

PRECAUTIONS

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 slaughter.

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 haemolytica*, *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 exhibiting clinical 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/kg BW) or an equivalent volume of sterile saline as a subcutaneous injection once on Day 0. 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 gamithromycin 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) classified 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 *Mannheimia haemolytica* and *Pasteurella 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 ZACTRAN (86% and 78%) was statistically significantly higher ($p = 0.0019$ and $p = 0.0016$) than the percentage of successes in the cattle treated with saline (36% and 58%).

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Beef's Bad Rap

Some myths are meant to be busted

We know the facts: Beef is nutritious, wholesome and safe. But it seems everywhere you turn — TV, social media, even the doctor's office — consumers are bombarded with conflicting and misleading information.

Dr. Shalene McNeill, director of human nutrition research for National Cattlemen's Beef Association, came to San Antonio, Texas, for the Texas Cattle Feeders Association Convention last fall to set the record straight during the event's closing general session.

"I want to make sure you have the facts so you can communicate them with the public," she said. "Because we know consumers love meat and they are looking to you and me to help them decide how it best fits in a healthy diet."

Here are today's top three myths and the facts you can use to bust them:

Myth: Beef causes cancer.

Fact: The evidence does not support a causal link between any type of red meat and any type of cancer.

When the International Agency for Research on Cancer study came out last fall, it was one of the red meat industry's biggest news days ever. Worldwide, it was the biggest news story of the day in the world with 2 billion social impressions. It was also a very trying time for McNeill.

"When I left that IARC meeting, I was so frustrated at how the science had been interpreted," she says. "I reminded myself in the parking lot something I tell my 10- and 13- year old daughters, 'What is done in the dark, comes out in the light.'"

She said it did — less than one week later the World Health Organization had come out saying, "Hold on, maybe something doesn't work

here. Maybe there is more context that we don't understand."

Myth: Beef causes heart disease.

Fact: Lean beef in a heart-healthy diet actually improves cholesterol levels and reduces the risk for heart disease.

McNeill says in the Beef in an Optimal Lean Diet, or BOLD, study, which was published in the American Journal of Clinical Nutrition, beef helped participants lower their cholesterol as effectively as the Gold Standard cholesterol-lowering diet recommended by doctors. What's more, those studied were eating two- to three- times the amount of beef the average American consumer eats.

Myth: Beef makes you fat.

Fact: As waistlines have expanded, our nation's beef intake has actually declined.

McNeill says the real source of the nation's obesity epidemic is calories.

"Calories do count," she said, adding that the typical daily caloric intake has increased by about 600 from 1970 to 2008.

McNeill says our calories from meat, eggs and nuts have stayed relatively constant. But increased consumption of flour and cereal products has led to an increased our caloric load in our diet.

More good news?

"There is also a growing body of research that shows more beef, more protein, in place of carbohydrates, can have a great impact in regards to weight loss and maintaining your muscle mass as you lose weight," McNeill says. "It also helps you maintain your muscle function as you age which decreases your risk of falls. And there's all kinds of great benefits with regards to maintaining a healthy weight."

FL

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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.

³ ZACTRAN product label.

⁴ Kahn, CM. *Merck Veterinary Manual*. 10th edition. 2010:1319.

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



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INJECTABLE MINERALS FOR DEVELOPING BULLS



To stay healthy, calves require quality feed, water and timely vaccinations. However, new research indicates that young, growing bulls require the right mix of essential macro and trace minerals. With low mineral levels, puberty is often delayed and yearling bulls may not pass a breeding soundness exam (BSE) when they are sold or when breeding season begins.

When nutrients are limited in cattle, reproductive development slows in favor of growth. Adequate amounts of vitamins, macro-minerals, trace minerals, protein, fat and carbohydrates are necessary for healthy growth and development of beef cattle.

Zinc, copper and selenium are especially important for developing bulls. If they are lacking in these as youngsters, sexual development is undermined. Poor nutrition early in life greatly influences when he reaches puberty, as well as his reproductive potential. For example, the testicular cells that support and control sperm cell development finish multiplying by the time growing bulls are 25 weeks old. Although, those and other testicular cells may grow in size after weaning, the numbers of those cells are determined before weaning.

Trace minerals are vital for each stage of reproductive development in young bulls. For instance,

manganese is part of the enzyme system that creates cholesterol for testosterone production. Copper and zinc have also been shown to be important in testosterone production. Testosterone controls testicular development and function. Puberty may be delayed, along with slowly developing testicles, if the animal is deficient in copper, zinc and manganese.

In addition, optimum mineral levels allow sperm cells to fully develop. Zinc and selenium arrange developing sperm cell tails into strong, twisted bundles. The middle sections of sperm cells are slightly thicker than the tails and control the tail's movement. Copper, manganese, zinc and selenium are critical to tail activity and the sperm cell's motility. Zinc also plays a role in processes that enable DNA to develop properly in the head of each sperm cell. If any of these steps are not successfully completed, fertilization of eggs is not likely to occur.

Zinc is also important for stimulating the appetite. If a young bull has inadequate zinc levels, he consumes less feed, further restricting nutrients that are critical to reach full reproductive potential. In addition, zinc, copper and selenium are essential for immune function. Without a strong immune system, these animals become sick more often, spending precious energy to fight disease.

There are several causes of mineral deficiencies. Some minerals, such as molybdenum, iron or sulfur may occur in soils, forages and water supply. In excessive amounts, these minerals become antagonists, binding or preventing absorption of essential trace minerals in the small intestine.

By the end of the grazing season, or during drought, dry, mature

forages have few nutrients available for beef cattle. There may be low levels of trace minerals in the feed or water and timid animals may not get a turn at the mineral feeder.

Recently, Kansas State University researchers conducted a trial that suggests injectable trace mineral supplementation improves yearling bull development. In this study, 245 bull calves received injectable minerals at seven months and again at 10 months. They also received a total mixed ration containing trace minerals as recommended by the National Research Council (NRC). At 12 months of age, 89 percent of these animals passed the BSE. The control group of 246 similarly fed bulls that were not injected with mineral supplements, had 86 percent pass their BSE at 12 months of age.

This research also suggests that sperm motility scores in the treated bulls were much better than non-treated animals. Having more bulls developed on time per 100 head returns an additional five to 15 dollars in revenue per dollar spent on injectable trace mineral supplementation. Those numbers may vary depending on the values of sale bulls, later maturing bulls sold as seed stock and cull bulls.

Based on body weight, injectable trace minerals are safe to use in newborn calves, and again at branding and weaning. These minerals quickly enter the bloodstream to bypass antagonists in the rumen. Excess minerals are stored in the liver until needed, which is an extra bonus.

Available with a veterinarian's prescription, this product may be safely administered every 90 days. Injectable trace mineral supplementation given to bull calves that are vaccinated prior to weaning and 60 days before the BSE ensures they are not deficient in minerals during their sexual development.

From a management standpoint, the producer doesn't have to wonder if his animals received nutrients at the mineral feeder. He knows they are in good mineral status. **FL**

WHAT IS POLLUTION POTENTIAL

Q: *I have a 3,000 head feedlot located in a low rainfall area with flat land around it and no flow paths to the nearest dry stream channel several miles away. I am told I will need an EPA Permit if I have significant "pollution potential." How is significant "pollution potential" determined?*

A: EPA can only require CAFOs that discharge pollutants (i.e. significant "pollution potential") to the Waters of the U. S. to apply for a permit. As feedlots rarely discharge anyhow, documenting the occurrence of a discharge that happened sometime in the past can be elusive, and having a modeling tool that can realistically project "pollution potential" is helpful. EPA has never developed a technically sound model for universally determining "pollution potential" of any CAFO. However, a few state environmental agencies who deal routinely with this question have developed tools attempting to unify this determination.

One such tool is a worksheet that tabulates salient parameters separately for surface water and groundwater. Surface water parameters include animal capacity; pen slope; drainage slope, soil types, and distance to the nearest protected water body; occupancy level (months/year); buffer features; amount of associated extraneous drainage; and the 25 year extreme as well as annual rainfall. Each of these factors receives a score based on its relative merits which are summed. The worksheets evaluation section stipulates a sum below which the feedlot does not represent a significant surface water "pollution potential."

Groundwater "pollution potential" is evaluated on animal capacity, annual rainfall, depth to groundwater, dominant soil types, and

nearby wells. Values are assigned to each parameter similarly to the above and a baseline value for their sum indicates whether the feedlot is considered a significant "pollution potential" to groundwater.

Another section evaluates whether a permit is required as per applicable statutes which may extend beyond "pollution potential." The last section considers special environmental conditions or features such as springs, sensitive groundwater, or other sensitive or special water bodies. The pres-

ence of one or more of the special features can trigger the requirement for a permit.

This tool is not perfect nor necessarily comprehensive in its evaluation, but it clearly illustrates that there can be many CAFOs that do not represent significant "pollution potential." In evaluating your "pollution potential," you should access a technical service provider with extensive experience and knowledge of applicable regulations and the science of agricultural environmental protection. **FL**

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Zoetis

To help producers further protect the cow herd, BOVI-SHIELD GOLD FP® 5 and BOVI-SHIELD GOLD FP 5 HB products, recently earned an additional label claim from the USDA against fetal infection caused by (BVD) Types 1 and 2 viruses. Combined with the current label claims to prevent PI calves caused by BVD Types 1 and 2 viruses, and to aid in the prevention of abortion caused by IBR virus, the BOVI-SHIELD GOLD FP® 5 and BOVI-SHIELD GOLD FP 5 HB product lines have the highest level of fetal protection of any reproductive vaccine available to cow/calf producers.

Newport Labs

Newport Laboratories, Inc. has developed a new multilocus sequence typing (MLST) technique for *Mycoplasma bovis*. The new technology represents a major advancement over the previous diagnostic process and will provide a better assessment of genetic variation that may be associated with antigenic, or strain differences.

John Deere G-Series

Several years in the making and designed with direct customer feedback, John Deere is introducing four Final Tier 4 G-Series skid steers (312GR, 314G, 316GR, 318G) and one compact track loader (317G). These new machines were designed to level the playing field for today's rental, ag material handling, construction and landscape

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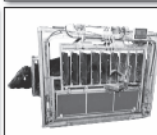
Free BQA Certification

Boehringer Ingelheim Vetmedica, Inc. (BIVI), announced a Beef Quality Assurance (BQA) free-certification period – from now through April 15. Beef and dairy producers can take advantage of

free BQA certification online courtesy of BIVI and the BQA program, which is funded by the beef checkoff. Register today and complete your certification at your own convenience.

BIVI will pick up the \$25-\$50 on-line training fee for every person completing BQA training through April 15. That includes anyone who works with cattle – whether it is beef or dairy. Visit www.bqa.org to take advantage of the open certification period. **FL**

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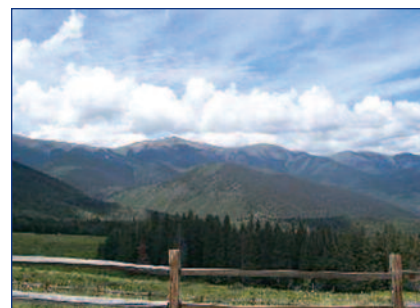


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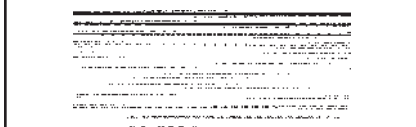
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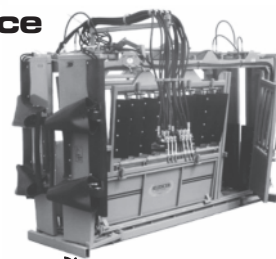
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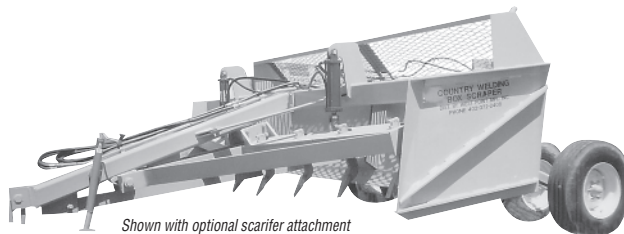


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