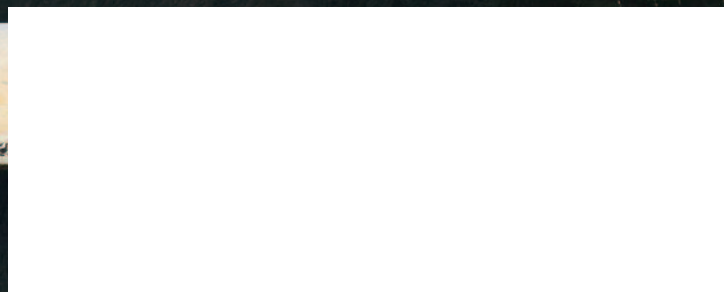
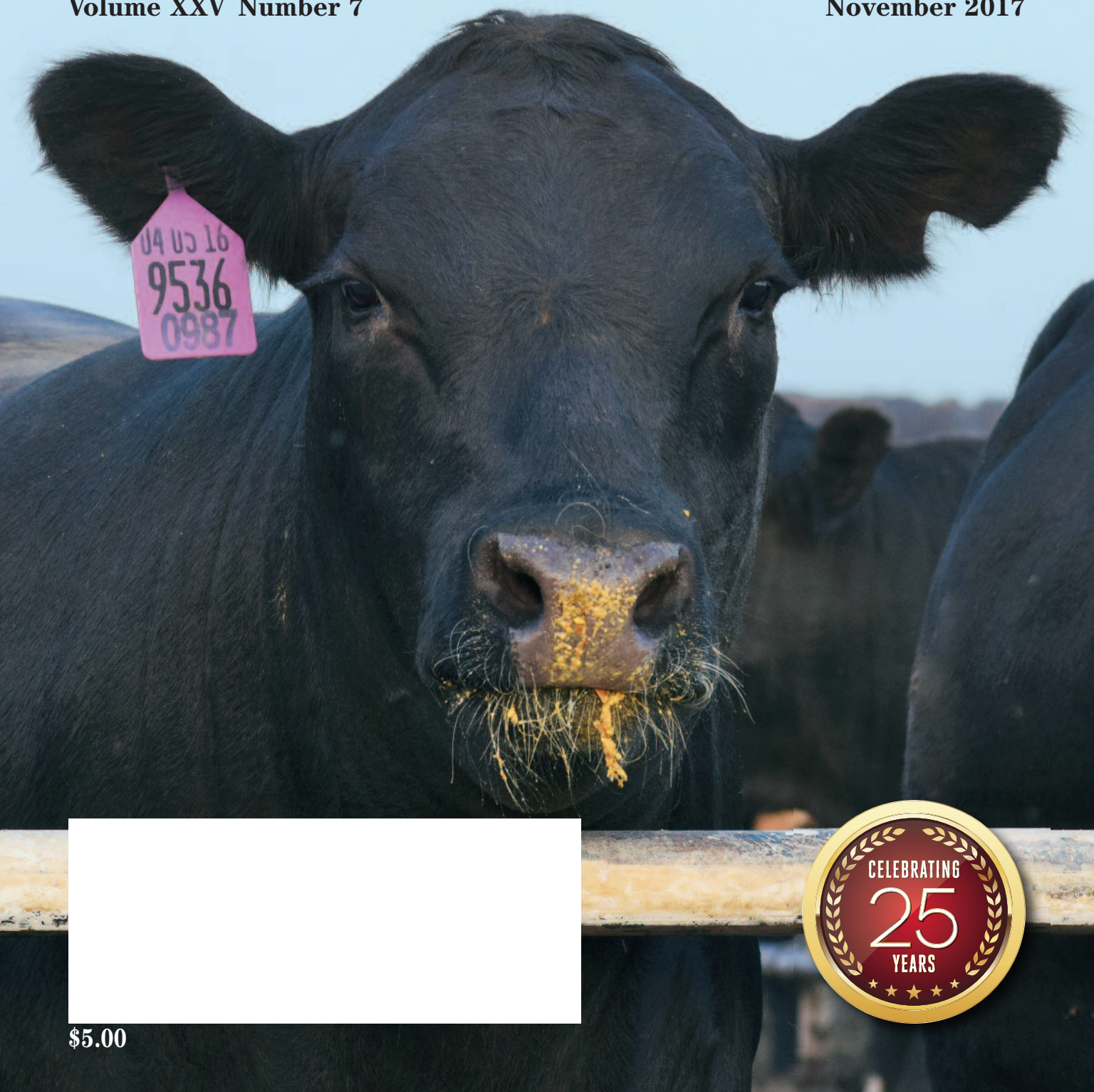


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FEEDER INFORMATION HIGHLIGHTS

Volume XXV Number 7

November 2017



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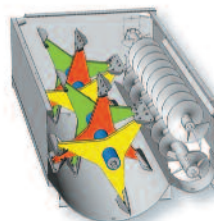
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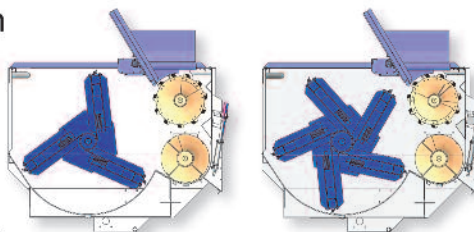
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FEEDLOT FOCUS

Hospital systems	6
Creating a "go-home" environment	
Price discovery in a premium era	8
Where is the base price coming from?	
Why antibiotics fail	10
Hint: it's probably not the drug's fault	
Know before they go	20
Looking to tap into Chinese markets?	
Communication, information is key	

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LARGE EQUIPMENT FOCUS

Shopping for size	14
Points to ponder when purchasing big equipment	
Cracking down on contamination	18
Due diligence will keep hydraulics clean	
Equipment winterizing tips	19
Proper maintenance will reduce winter breakdowns	

MANAGEMENT

Getting off to the right start	22
Tips for young producers building a banking relationship	

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Beyond the cover

Food for thought. That's a good way to look at this issue of *FEED•LOT* magazine. When we put together each issue of this publication, our goal is to provide editorial that will help you make money, save money or contribute to your operation. The articles in the November issue do that, but in a way that we hope will trigger some thinking on your part.

Two of those articles come from the Feeding Quality Forum. *FEED•LOT* is proud to be a part of that meeting that was held in August, and it was definitely thought provoking. Ed Greiman drew on his work as chair of the National Cattlemen's Beef Association (NCBA) Cattle Marketing Committee talking about price discovery. In an era where premiums are king, how do we know what's fair for average? Where is the base price that premiums are based on? With trades limited to just an hour or two during the week, the futures

market is driven by other factors which increase volatility. Ed offers some things to think about.

Another speaker, Doug Stanton with IMI Global, shared his knowledge on marketing opportunities beyond our borders and the steps it takes to get there. Doug's take-home message – don't just assume because you know the history of the cattle they will be eligible for overseas markets. Documentation is key. You've got to think things out ahead of time.

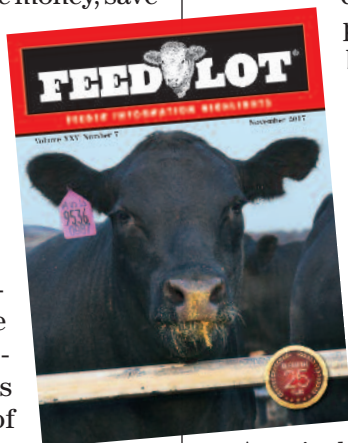
A topic that is sure to catch your attention if you're a "magazine browser" is the story on page 10: Why Antibiotics Fail. It's easy to blame a bottle when cattle don't turn around after a shot. Cowboy coffee shop talk often centers around what drug is "working." Dr. Michelle Arnold explores why some products appear not to be. Multiple underlying factors contribute to antibiotic success, including animal husbandry and

choosing the correct product based on the structure of bacteria. We hope her article will make you think about antibiotic selection and if you're doing your part to support the product.

As the year draws to a close, you might be thinking about tax-related purchases. This issue offers tips on buying large equipment, as well as maintaining large equipment and making necessary repairs without contaminating parts.

Lastly, we are taking the opportunity to pay tribute to Dr. Jim Sprague. He passed away this fall after a lengthy career in the cattle feeding industry as a nutritionist. Although he was retired when we started working together 20 years ago, his desire to educate and help cattle feeders never waned. I spent many afternoons at his kitchen table – him with typed thoughts he wanted to get to convey, and myself with an editor's pencil to smooth out his well-founded ideas. His articles were a favorite of readers for many years.

Dr. Sprague always offered food for thought, just like this issue. I think he would approve. **FL**



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HOSPITAL SYSTEMS

Good hospital pens are crucial for effective, efficient treatment of sick cattle to get them back to their home pens quickly. Hospital systems vary, depending on yard size, treatment plans, facilities, etc. Exercise or additional treatments can also be utilized, all with the goal of reuniting sick livestock with their pen mates.

Corbin Stevens, DVM, with Stevens Veterinary Services, Production Animal Consultation consults with 15 feedlots and says the larger ones have multiple hospital locations. This makes it easier to get cattle in from various areas, with smaller groups in each pen.

"We use a four-day recovery system, with four recovery pens, so we can exercise the cattle daily, moving them into a new pen. We rotate pens, and cattle do better if they are moved into a new environment with fresh feed and water. After rotating through, on day four they are evaluated to see if they can go back to their home pen, or need retreatment, or go to a convalescent pen," says Stevens. He recommends sorting cattle in a convalescent pen once a week to take out any that can go home or see if any need re-treatment.

"Many of these cattle don't need more drugs/antibiotics but need more time, and maybe supportive care like drenches or vitamins. They're not quite well enough to compete in their home pen at the feed bunks. We also have a treatment pen where cattle are brought in for specific ailments needing daily treatment," he says. Every hospital also has a chronic pen. Those animals may be euthanized eventually or sold on the rail once drug withdrawal has been met.

Randall Raymond, DVM, Director of Research/Veterinary Services at Simplot Livestock, says cattle in their hospitals are treated with as little disruption as possible. "Historically we kept cattle in hospital pens several weeks so they could receive a series of treatments. We don't do that anymore," he says.

"One reason is that hospital bunks are difficult to manage because of varying head count as cattle come in and out. Keeping feed fresh is challenging. Second, hospital pens are a place where sick cattle can transmit diseases to each other. Third, the antibiotics available today last longer and don't require handling cattle multiple times. Some drugs have 7 to 10 day tissue levels. We can often treat animals and take them back to their home pen within 24 to 36 hours," Raymond explains.

"Cattle that need extra care or additional treatments stay as long as necessary, so we have two kinds of pens. If we think an animal will be well enough to go home within 36 hours after treatment we put it in a go-home pen," says Raymond.

"The second type of pen usually has a roof and bedding, for more intensive care if animals need to stay multiple days. If they are injured or extremely lame and won't do well in a competitive situation, we'll keep them in this pen as long as needed," he says.

There are always multiple animals coming in to the various pens, because of the size of the yards and number of cattle. "Cattle that come in today from a certain part of the feed yard are placed in the same pen. Then the crews can take that entire pen back to that location when they're ready to go home. That one pen might house cattle

from five or six different alleys in that part of the yard. They will be taken back as a group to that region and sorted back into their normal pens," Raymond says.

"Our hospital pens are organized—black cattle together, large cattle together, etc." says Stevens. Flow-through pens speed recovery. "We can tell when we're not managing our hospitals appropriately because death losses and chronics increase. Antibiotics are a great tool, but if other important things are not managed (comfort, minimizing stress, etc.) in hospital pens, the antibiotic is almost irrelevant," he says.

It is important to clean water tanks daily and have fresh water. Dry bedding is important, especially in winter. "In summer, many yards provide portable shade," Stevens says.

"Exercising the cattle (rotating them through our four-day pen system) is a huge help, to increase blood flow and improve healing. If they just lie around they won't heal as fast." Getting them moving helps physically and psychologically. Cattle with severe pneumonia need something to look forward to. They want to be out of that hospital pen."

A new pen, new feed, new environment, is a fresh start for the animal. "Each day the cattle feel better. Their pen mates start to feel better, start eating more, and have a more inquisitive attitude. This helps their recovery," says Stevens.

"Antibiotics are wonderful, but in the last 20 years we've forgotten that cattle also need a nice place to lie down, clean feed, clean fresh water and good handling. Those things are more important than what kind of drug you give them."

FL

Dr. Jim Sprague Passes Away

Dr. Jim Sprague, a retired livestock nutritionist who wrote articles for *FEED•LOT* for several years passed away September 2, 2017. He was born on February 17, 1931, in Greenville, Michigan. After graduating from Greenville High School, James attended Michigan State University. During the Korean Conflict he served in the U.S. Army, being discharged as a First Lieutenant. He returned to Michigan State where he would receive his Bachelors and Masters Degrees followed by his Ph.D. in 1961 as an Animal Nutritionist.

James began his career as a Livestock Nutrition Specialist and Assistant Professor at Colorado State University from 1961-1963. He then worked for several large feed companies in Colorado, including Wilgro Feeds and Ranch-Way Feeds from 1963-1980. He moved to Garden City, Kans., in 1980 where he continued his career with Farr Better Feeds. After retiring he operated Sprague Animal Consulting.

James married A. Jeanne Reed in 1953 in Horton, Michigan. They had two sons, Tony and Kim. He later married Josephine Niernberger in 1981, she died in 1997. On December 10, 2000, he married Nancy Spangler Thompson, after which he moved to Newton.

He was a member of the First Church of the Nazarene in Newton and the American Legion in White-water, Kansas. Jim was a man who never met a stranger. He loved family and spending time attending their many activities and celebrations. **FL**



PROTERNATIVE-THE NEW MEASURE OF PREVENTION

The industry is changing; it's time to take cattle feeding down a new road. Recent advancements in cattle nutrition have opened new routes to help limit pulls, treatment and positively benefit the health of an animal. Adopting a *new measure of prevention* through the feed is an important first step to help minimize delays on the road ahead.

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BY MIRANDA REIMAN

Price discovery in the premium era



Cattle just aren't traded the same today as they were decades ago.

Chances are, the beef business isn't going to reverse its ways, said Iowa cattleman Ed Greiman, during the Feeding Quality Forum in August.

"We know that we are never going back to 70% or 80% of the cattle negotiated on the cash market," said Greiman. "Why? You are paying extra premiums for calves."

Feeders trying to fill a yard with repeat suppliers, following special protocols or participating in verification program need a return on the investment. Cow-calf producers need to get extra for their calves if they've spent more on improved genetics and management compared to the average.

"We are trying to market the value of our cattle," the feeder said. They are no longer all commodities.

The partner in Greiman Brothers farm near Garner, Iowa, drew on his work as chair of the National Cattlemen's Beef Association (NCBA) cattle marketing committee to talk about price discovery with the feeders, allied industry and academia gathered in Omaha, Neb., and Garden City, Kan.

"Retailers or customers want something specific, and in doing that, we form these alliances and partnerships," he said, "but we also change the dynamics of our market. I'm not saying that's bad; it's where the market is going."

It does cause challenges in establishing base price.

USDA's Mandatory Price Reporting came about in the late 1990s as a way to introduce more transparency in the market.

"When it first started, its purpose was to report to us what cattle were trading somewhere else. It was to give us an idea of what people were doing with their cattle in different regions," Greiman said. "No one ever thought that we would end up pricing cattle off of it."

But that's where most grids and formulas draw their starting points.

"When you see the average price in Iowa on 1,000 head traded for \$1.04, what does that mean? What were those cattle?" he asks. They could be overfat heiferettes or a group with above-average, uniform genetics. "None of us really know what those cattle are because we can't see them. We don't have a picture of them and we weren't there, so we don't know what the conditions of those trades are about."

"Another concern I have," he said, "is what happens when you get to where that last 25% of the cattle are actually below average?" That's not generally the case yet according to the data, he added.

While Greiman used to enter into packer negotiations by asking about premiums, now he first asks, "What am I based off of?"

When fall 2015 brought an all-time low in the number of cattle traded live, down to 15% one week, this issue came to the forefront.

"I believe that was the week Texas was less than 500 head," Greiman said. Price volatility was also high at that time, and packer margins have climbed since then. "There was this bright light shined on the cattle business two years

ago." Since then, elected officials, the Commodity Futures Trading Commission (CFTC), producers and industry stakeholders have been working together to come up with solutions, such as the Fed Cattle Exchange.

"We have a tendency to trade cattle once a week...on Fridays. We were doing a lot of Friday, 4-o'clock and 5-o'clock trades," he said. The futures corrections come on Mondays. "You see a market kind of has a tendency to do what it wants to do during the week, because we weren't telling it anything."

Cattlemen need to drive changes, Greiman said, because grid marketing works, rewarding the better cattle with better prices, so it's likely not going away.

A recent conversation with a retailer cemented his thoughts on that. "He's saying this is what I want. He's telling the feedlot what we want, and then the feedlot's going to tell the cow-calf man. The cow-calf man's going to go to the seedstock producer, and we're pulling through."

"Well, if you're going to build a program like that it's kind of hard to put them on the open cash market," Greiman said.

For more information on the meetings, co-sponsored by Roto-Mix, IMI Global, Micronutrients, Zoetis, *Feed•Lot* magazine and Certified Angus Beef LLC, visit feedingqualityforum.com. 



NEW TOOL REVOLUTIONIZES BRD DETECTION

Accounting for up to 80 percent of morbidity in cattle herds, bovine respiratory disease (BRD) is a costly problem for the U.S. cattle industry.¹ As producers work with veterinarians to improve prevention and treatment protocols, detection is an area that continues to be a struggle in BRD control.

BRD DETECTION

Feedyards depend on pen riders to evaluate the health of cattle and determine which cattle should be further evaluated. Looking for common symptoms — such as depression, nasal discharge or coughing — pen riders will pull cattle to send to the chute to check for additional symptoms of BRD or other illness.

Once cattle are in the chute, some feedyards measure fever to help confirm the BRD diagnosis. Other than assessing symptoms, there hasn't been an accurate method for evaluating the health of the animals' lungs, until now. Whisper® Veterinary Stethoscope System is a tool specifically designed to detect lung health status for improved BRD confirmation.

"By identifying cattle that truly have BRD and providing a clearer picture of lung health and the severity of BRD, Whisper will help feedyards and veterinarians develop optimal treatment plans."

— DR. NICKELL

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"This tool is designed for improving the accuracy of the BRD diagnosis once cattle are identified and brought to the chute," says Jason Nickell, D.V.M., associate director of livestock technology and innovation, Merck Animal Health. "In eight seconds, Whisper provides users with a lung severity scale of 1 to 5, allowing feedyards to confirm the BRD diagnosis and determine a more accurate treatment plan based on the disease severity of the lungs."

Dr. Nickell says Whisper can be used in coordination with other diagnostic methods. "We've observed that using Whisper, along with rectal temperature (see chart), further confirms BRD severity," he says.

"By identifying cattle that truly have BRD and providing a clearer picture of lung health and the severity of BRD, Whisper will help

veterinarians develop optimal treatment plans," says Dr. Nickell. "This more detailed and accurate evaluation allows veterinarians to better determine the severity of problems and choose which animals to treat." This, of course, means more targeted information to support judicious antibiotic use, an increasing issue within the livestock industry.

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¹ Smith RA. Impact of disease on feedlot performance: a review. J Anim Sci. 1998;76:272-274.

Antibiotics Fail

Hint: It's probably not the drug's fault

Bovine respiratory disease (BRD) continues to be the most common cause of feedlot death loss, despite improved vaccines and expensive long-acting antibiotics formulated specifically against the bugs commonly found in a diseased bovine lung. Beyond death loss due to severe pneumonia, the costs of treatment (antibiotics) and prevention (vaccines), loss of production, and reduced carcass value in chronic cases must also be considered to understand the full economic loss to the industry. In the face of these challenges, consumers are increasingly demanding reduced antimicrobial use in the production of whole-beef.

The FDA, concerned that overuse of antibiotics in animals will create resistance and reduce their effectiveness in people, has already limited the use of antibiotics in feed through the Veterinary Feed Directive. Many cattle producers are concerned injectable antibiotics may be FDA's next target. While antibiotic resistance does occur, it is not the only reason for treatment failure. Given the need to continue using antibiotics in food-producing animals, it is important to review their correct usage and why antibiotics may fail to work.

BRD relies on the mixture of host susceptibility, pathogens (viral and bacterial) and the environment to cause disease. Mannheimia hemolytica (formerly known as Pasteurella hemolytica), the most common bacteria found in bovine pneumonia, is an opportunist that

If a calf requires retreatment, selection of an antibiotic from a different class will attack the bacteria through a different route and often enhances treatment response. A veterinarian is well-trained in antibiotic selection and is the best source of information when choosing therapy.

gets in the lungs when the calf's defenses are down due to a respiratory virus and stress. Weaning, comingling, transportation, castration and dehorning, bad weather, overcrowding, and poor quality air are known to compromise a calf's immune system. A persistently-infected

(BVD-PI) calf in a pen results in continuous exposure of the pen mates to the BVD virus and a constant reduction in their ability to fight sickness. Lightweight calves weaned on the truck that have not begun eating and drinking are at exceptionally high risk for disease and death. Each of these situations leads to poor antibiotic response.

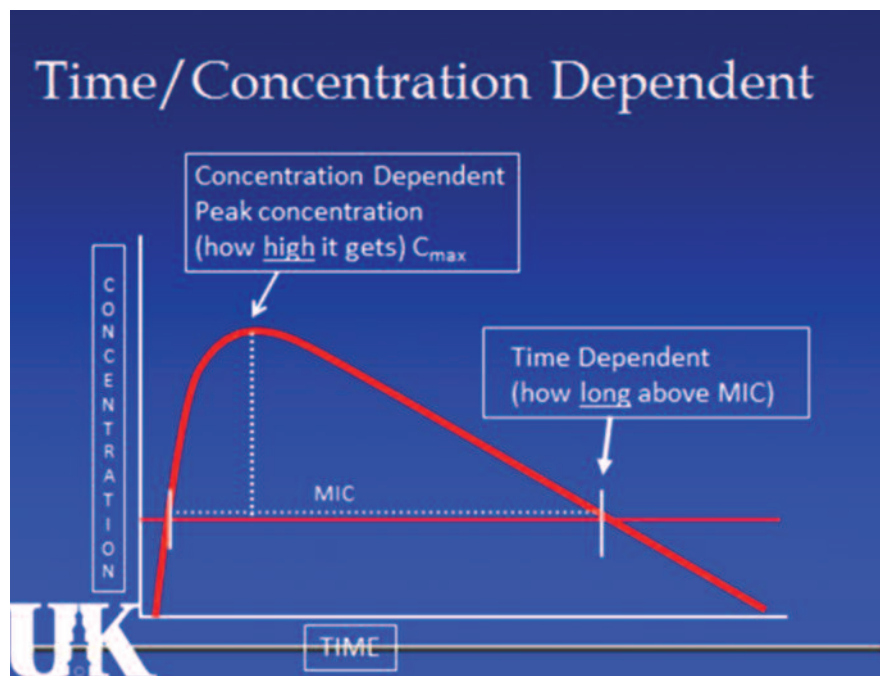
It is important to understand why successful treatment of pneumonia is not simply a matter of grabbing a bottle of the latest and greatest antibiotic, drawing up a dart-full, shooting it in the sick calf and waiting for the magic bullet to take effect. Instead, full recovery is a joint effort between the calf's immune system and the selected drug to stop the growth of bacteria and destruction of lung tissue. Antibiotics hold bacterial growth "in check" and give the calf's immune system time to gear up and effectively fight the disease. Treatment failure may be due to calf factors including overwhelming stress, infection with BVD virus, or nutrition-related factors such as trace mineral deficiencies or subacute ruminal acidosis.

Sound nutrition and management, especially around weaning, will substantially increase the response to antibiotics. Calves vaccinated 2-3 weeks pre-weaning

against respiratory viruses are known to respond faster and better to antibiotic therapy if needed. A good environment with plenty of shade, space, clean water and bunk space reduces stress. Identification and removal of PI calves is accomplished through a simple, inexpensive ear notch skin test. Trace mineral deficiencies can be addressed quickly through an injectable trace mineral supplement while calves are transitioning on to a trace mineral mix.

Treatment failure due to human errors may include poor timing, use of the wrong drug, improper dose or route of administration, mishandling issues or failure to recognize treatment response. Timing is crucial; if calves are treated early in the course of disease, almost any antibiotic will work. Conversely, if calves are treated late in the course of the disease, nothing will work. In

Figure 1: The “MIC” is the “minimum inhibitory concentration” or the minimum level of the drug needed to fight bacteria.



addition to timing, dosage is crucial because antibiotics only work if they reach concentrations above

the minimum inhibitory concentration or “MIC”. Figure 1 graphically displays the difference

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Congratulations to Our September Winner - Dr. Rhonda Vann from Mississippi

Why antibiotics fail... from previous page

between antibiotics that are considered “time dependent” (effectiveness depends on exposure to the drug for a certain length of time) versus “concentration dependent” (bacteria must be exposed to a high concentration of the drug). If label directions are not followed and only a partial dose is administered or perhaps a second dose is required but not given, the drug is unlikely to work effectively because it cannot reach the necessary minimum target concentration.

Selection of the best antibiotic class or “family” is an equally important success factor. Figure 2 is an illustration of the mechanisms antibiotic classes use against bacterial cells. Beta-lactams (penicillin, Excede®, Naxcel®, Excenel®) cripple production of the bacterial cell wall that protects the cell from the external environment. Aminoglycosides (gentamicin) and Tetracyclines (LA-300®, Biomycin®, and many others) interfere with protein synthesis by grabbing on to the machinery in the ribosome needed to build proteins. Macrolides (Draxxin®, Micotil®, Zactran®, Zuprevo®, Ty-lan®) and Chloramphenicol derivatives (Nuflor®) also interfere with protein synthesis although at a different location on the ribosome. The Fluoroquinolones (Baytril®, Advocin®) block genetic replication by interfering with DNA and RNA synthesis.

Why is this information important? If a calf requires retreatment, selection of an antibiotic from a different class will attack the bacteria through a different route and often

enhances treatment response. Another good example is treatment for *Mycoplasma bovis*, a bacterium frequently found in chronic pneumonia cases. *Mycoplasma* has no cell wall so treatment with a Beta-lactam will prove absolutely useless. A veterinarian is well-trained

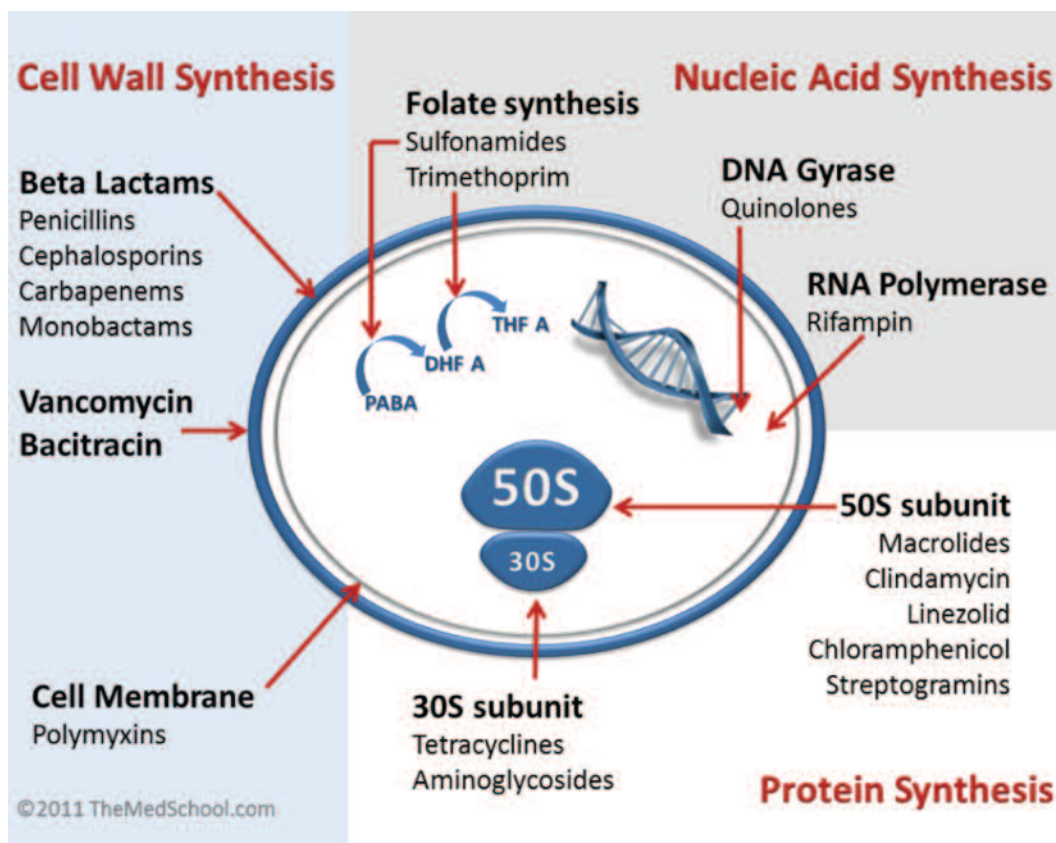
Careful attention to timing of treatment, drug selection, dose, and handling of the product will reduce the human factors that contribute to antibiotic failure.

in antibiotic selection and is the best source of information when choosing therapy. Another issue that may affect success is mishandling the product; an antibiotic that gets too hot or is allowed to freeze inactivates the drug in most cases. Sometimes treatment failure is not

a “failure” but rather an inability to recognize recovery. A calf that is eating, drinking and looks better after treatment but still has a slight fever often just needs time, rather than more medicine, to fully recover since fever is one of the last clinical signs to disappear.

Strategic and correct use of antibiotics will continue to be of importance for the cattle industry from this point forward. Careful attention to timing of treatment, drug selection, dose, and handling of the product will reduce the human factors that contribute to antibiotic failure. Calf factors including overwhelming stress, infection with BVD, environmental or nutrition-related disorders must be minimized in order for the calf’s immune system to work effectively with the antibiotic to stop disease in its tracks. Judicious or proper use of antibiotics will ultimately curb the development of antibiotic resistance and help protect human health, a win-win situation. **FL**

Figure 2: Drawing of a bacterium illustrating the ways different “classes” of antibiotics attack them.



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 **MERCK**
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SHOPPING FOR SIZE

Two Manufacturers Offer Suggestions On Purchasing Large Equipment

Feed yards sell feed. Sure, they use cattle as a consumer for that product, but when it gets down to it, feed yards are selling feed. At the heart of every feeding operation are reliable equipment and a crew to deliver it accurately and on time. It takes a wide variety of large equipment and machinery to keep

a feed yard running. If your company is on a routine replacement schedule, is expanding or needing to upgrade, there are several aspects to consider before making a new purchase.

Determine your needs

If you're in the market for a new loader or tractor, Jacob Sherman,

Kubota ag tractor project manager suggested evaluating your needs and deciding what you plan to do with the equipment. Will this machine clean pens, load feed trucks or haul round bales? What other jobs might be considered? That way the machine you purchase will match your expectations, he explained.

"Evaluate the horse power required for existing implements and make sure you get enough power to properly utilize them," Sherman said. "Most manufacture manuals will have a preferred or recommended horse power rating."

Loader height is also a key factor in a new purchase, said Joes Grimes, CAT global product expert. "Feed trucks and feed wagons are growing in size and capacity. They could be 12.5- to 13-feet in height, and we want to be able to dump product into a wagon that tall and give the operator a good line of sight to do so."

With increased height,



the payload capacity is also important. "You don't want to give up so much payload that you can only pick up a small load," Grimes explained. "So there's a balance there you need to achieve. Get high enough to do the task, but not so high that you lose the stability of the machine."

Integrated payload control is a benefit for some operations, Grimes said, increasing productivity and ease-of-use by allowing operators to weigh payload right at the pile to get the correct amount before they travel to the wagon.

Depending on the application and type of machine, rear 3-point lift capacity could also be important, as is the functionality of a front 3-point if the machine is used for snow removal or scraping, offered Sherman.

PTO speed can also be a potentially restricting variable, he said. "Smaller tractors may only have a



540 rpm, and some larger models could require you to pay for the option of 1000 rpm (standard on

M7 Kubota models), or they may not offer it. It varies by manufacturer," Sherman said. ►

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Shopping for size... from previous page

Consider Safety

Employee safety is paramount, so make sure any new purchase has safety features. Some loaders offer integrated rear detection systems, similar to what automobiles have, said Grimes. "Our rear detection system is smart in a way that if you're moving quick, it looks further out to give you time to stop. If you're going slowly, it pulls that range back in," he said.

Visibility is another safety consideration. "Make sure you can see in the rear for 3-point work or in front of the tractor," added Sherman.

Lighting is also important. "Depending on the use of the machine, see what lighting packages are available for night operation," he said.

Grimes agrees that lighting is important. "Backup lights so you can see are a key safety feature." Integrated tire pressure sensors

are another safety feature that helps ensure the equipment is operating appropriately.

Operating Costs

Everything comes down to the bottom line, so features that reduce operational expenses can make an impact on the purchase. "We think very seriously about operating costs. Things like fuel burn, tires and wear on cutting edges are important to our customers," explained Grimes.

Features like wheel torque control allow an operator to adjust the torque set to the tires. "On concrete pushing up hay, you turn up the torque. But if I'm in pens working, I can dial that back so it doesn't burn up the tires, and I have predictable control in slippery conditions."

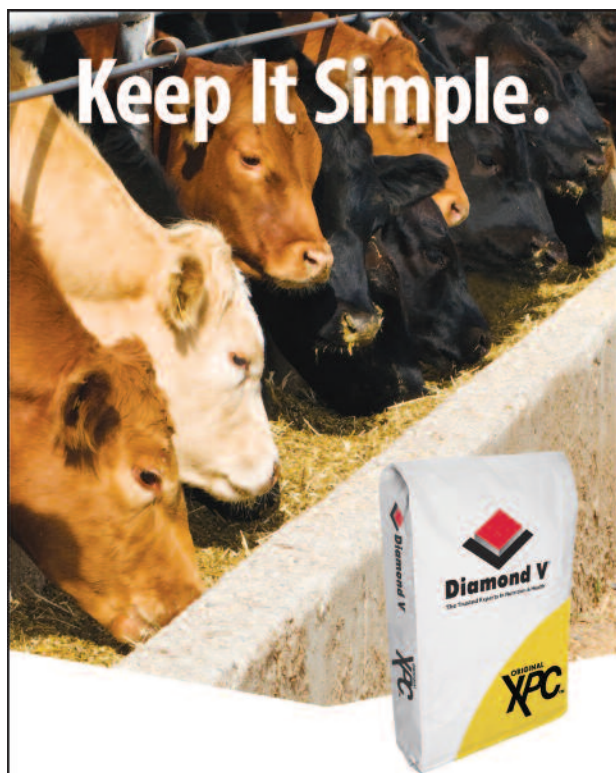
Fuel burn can be reduced with a lower engine speed, resulting in less wear on rotating components. Wear to cutting edges can also be reduced with features that stop the bucket

from hitting the ground hard and instead catch the bucket an inch above the ground, said Grimes.

Standard vs. Extra

There is a wide range of features available. Some of those might be critical to your operation, while others are simply "extra" that come on the equipment. "We try to envelop built-in value in our units," said Sherman. "We have a lot of standard features that are options on others."

Understanding what is standard on one brand of equipment or what is extra on another brand can help steer your decision. You don't want to pay for features you don't need, however sometimes features, like a front-loader dampening system, is nice to have. It is optional for some manufacturers and standard for others. Understanding what is standard versus extra helps compare "apples" to "apples." **FL**



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has entered the cylinder, damage can occur to the surface of the cylinder bore and internal cylinder piston seals.

With damage to the cylinder bore and cylinder piston seals, internal leakage starts to occur and efficiency slowly begins to erode. Studies have shown that efficiency losses can reach up to 20 percent or more before the operator detects an issue with the performance of their machine. When thinking of this figure in terms of productivity, 20 percent loss in efficiency translates to a loss of one entire day of production in a five-day week. Efficiency loss also reduces the overall performance of your machine and increases fuel usage. As a result, your machine becomes more expensive to run but with less productivity.

Once contamination has entered the cylinder, it can also spread throughout your entire hydraulic system and cause damage to other components such as pumps, motors or valves. Even worse, full

system contamination may even lead to a catastrophic failure, leaving your machine down for an extended duration and at a very high cost to repair.

Contamination should be a major concern when a repair is performed. If care isn't taken to ensure contamination isn't kept out of your hydraulic system during a repair, it could cost you down time and high expense later on. Make sure anyone working on your equipment is aware of contamination control.

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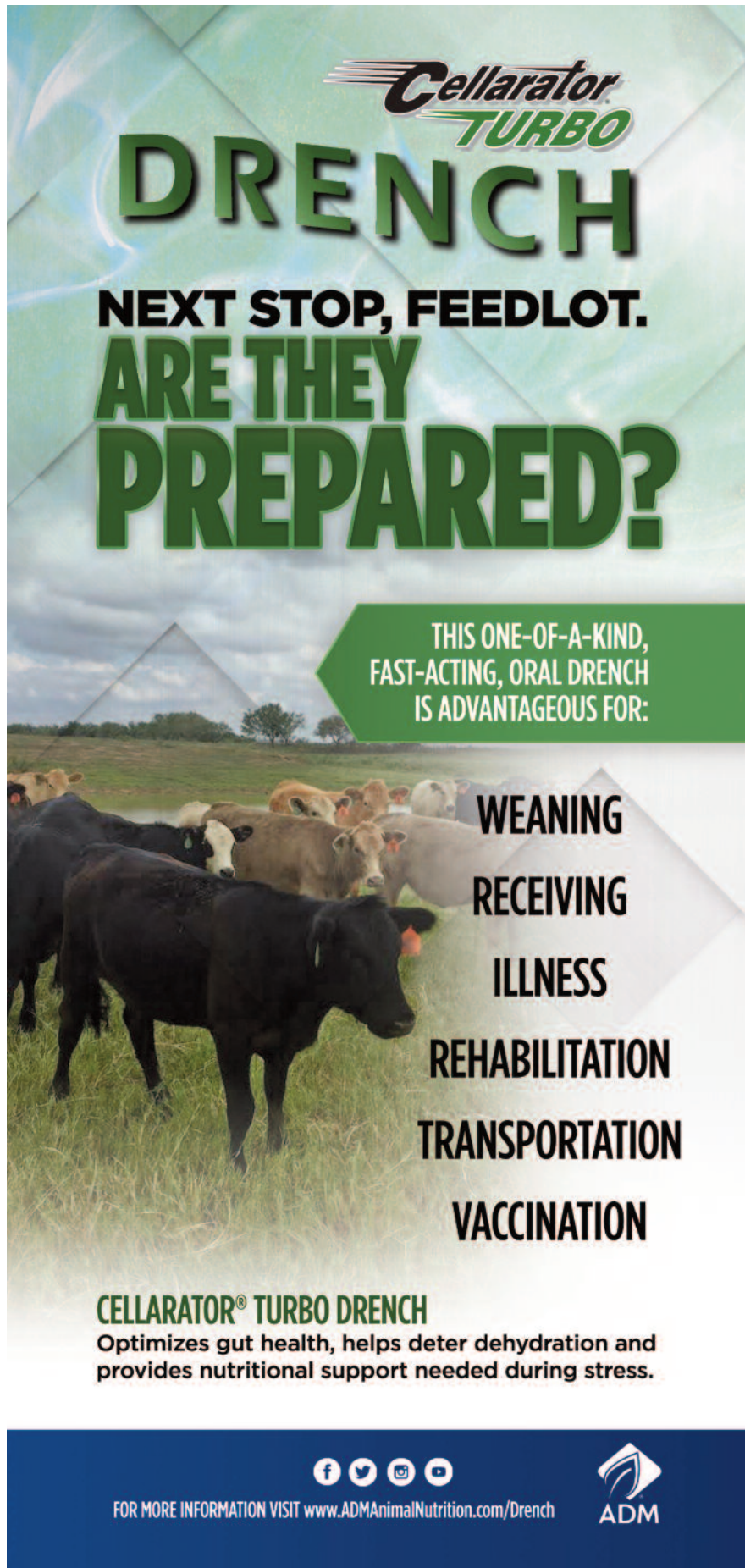
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Tips to Winterize Large Equipment

- ❑ **Check owner's manuals** for winterizing suggestions specific to your equipment.
- ❑ **Winterize your fuel.** Diesel fuels can gel in cold weather, so it's important to use a winter blend diesel or fuel additives to keep your engines running.
- ❑ **Change oil.** If items will be stored, clean engine oil reduces internal engine corrosion during storage.
- ❑ **Clean or replace all air filters,** replace fuel filters, lubricate bearings to maximize the life of your equipment.
- ❑ **Check antifreeze** for the correct temperature. If the antifreeze is older, change it out.
- ❑ **Check tire pressure** when the weather cools off and inflate to the recommended pressure to reduce sidewall damage.
- ❑ **Clean equipment.** Do not store during winter with dirt, manure, etc. Moisture that collects with dirt and manure can freeze and expand, damaging equipment and promoting rust.
- ❑ **Store components** raised or on blocks to prevent rust.
- ❑ **Hydraulic cylinders** should not be stored fully extended. As temperatures increase, hydraulic oil will be confined and high pressure may cause damage to the hydraulic system.
- ❑ **Compressed air is good to clean hard-to-reach places.** It can also be helpful after washing to dry surfaces. Operate machinery for 10 to 20 minutes to help shed excess water from hard to reach places.
- ❑ **Batteries not used in the winter should be stored.** Even a small current drain can eventually discharge batteries and cause them to freeze in cold weather. Clean all connections and coat terminals with a thin layer of grease to prevent corrosion. 

Source: Utah State Extension



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Brief Summary: Before using Enroflox[®] 100, consult the product insert, a summary of which follows.

CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian. Federal (U.S.A.) law prohibits the extra-label use of this drug in food-producing animals.

PRODUCT DESCRIPTION: Each mL of Enroflox 100 contains 100 mg of enrofloxacin. Excipients are L-arginine base 200 mg, n-butyl alcohol 30 mg, benzyl alcohol (as a preservative) 20 mg and water for injection q.s.

INDICATIONS:

Cattle - Single-Dose Therapy: Enroflox 100 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; and for the control of BRD in beef and non-lactating dairy cattle at high risk of developing BRD associated with *M. haemolytica*, *P. multocida*, *H. somni* and *M. bovis*.

Cattle - Multiple-Day Therapy: Enroflox 100 is indicated for the treatment of bovine respiratory disease (BRD) associated with *Mannheimia haemolytica*, *Pasteurella multocida* and *Histophilus somni* in beef and non-lactating dairy cattle.

Swine: Enroflox 100 is indicated for the treatment and control of swine respiratory disease (SRD) associated with *Actinobacillus pleuropneumoniae*, *Pasteurella multocida*, *Haemophilus parasuis* and *Streptococcus suis*.

RESIDUE WARNINGS:

Cattle: Animals intended for human consumption must not be slaughtered within 28 days from the last treatment. This product is not approved for female dairy cattle 20 months of age or older, including dry dairy cows. Use in these cattle may cause drug residues in milk and/or in calves born to these cows. A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal.

Swine: Animals intended for human consumption must not be slaughtered within 5 days of receiving a single-injection dose.

HUMAN WARNINGS: For use in animals only. Keep out of the reach of children. Avoid contact with eyes. In case of contact, immediately flush eyes with copious amounts of water for 15 minutes. In case of dermal contact, wash skin with soap and water. Consult a physician if irritation persists following ocular or dermal exposures. Individuals with a history of hypersensitivity to quinolones should avoid this product. In humans, there is a risk of user photosensitization within a few hours after excessive exposure to quinolones. If excessive accidental exposure occurs, avoid direct sunlight. For customer service, to obtain a copy of the Safety Data Sheet (SDS) or to report adverse reactions, call Norbrook at 1-866-591-5777.

PRECAUTIONS:

The effects of enrofloxacin on cattle or swine reproductive performance, pregnancy and lactation have not been adequately determined.

The long-term effects on articular joint cartilage have not been determined in pigs above market weight.

Subcutaneous injection can cause a transient local tissue reaction that may result in trim loss of edible tissue at slaughter.

Enroflox 100 contains different excipients than other enrofloxacin products. The safety and efficacy of this formulation in species other than cattle and swine have not been determined.

Quinolone-class drugs should be used with caution in animals with known or suspected Central Nervous System (CNS) disorders. In such animals, quinolones have, in rare instances, been associated with CNS stimulation which may lead to convulsive seizures. Quinolone-class drugs have been shown to produce erosions of cartilage of weight-bearing joints and other signs of arthropathy in immature animals of various species. See Animal Safety section for additional information.

ADVERSE REACTIONS: No adverse reactions were observed during clinical trials.

ANIMAL SAFETY:

In cattle safety studies, clinical signs of depression, incoordination and muscle fasciculation were observed in calves when doses of 15 or 25 mg/kg were administered for 10 to 15 days. Clinical signs of depression, inappetence and incoordination were observed when a dose of 50 mg/kg was administered for 3 days. An injection site study conducted in feeder calves demonstrated that the formulation may induce a transient reaction in the subcutaneous tissue and underlying muscle. In swine safety studies, incidental lameness of short duration was observed in all groups, including the saline-treated controls. Musculoskeletal stiffness was observed following the 15 and 25 mg/kg treatments with clinical signs appearing during the second week of treatment. Clinical signs of lameness improved after treatment ceased and most animals were clinically normal at necropsy. An injection site study conducted in pigs demonstrated that the formulation may induce a transient reaction in the subcutaneous tissue.

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

102 September 2016

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KNOW Before They Go

Want To Produce Cattle For China? Communication, Information Key.

You've seen the headlines. You've decided you want to produce cattle for the Chinese export market. But what's next? According to Doug Stanton, vice president of sales and customer development with IMI Global, you need to talk to your packer. If you're a cow-calf producer, you need to talk to your feeder.

Stanton spoke on market opportunities at the Feeding Quality Forum last August. Not surprisingly, China was one of the biggest of those opportunities.

The fastest-growing beef market in the world, Stanton noted, "China's middle class alone is already as large as the entire U.S. population. When combined with Hong Kong and Vietnam, the region is the largest importer in the world. Fastest growing, too."

Stanton said China's imports broke records in 2016, up 56% in a year-long period. While the country's top suppliers are Australia, Uruguay, New Zealand, Argentina and Canada, the U.S. had been out of the market for the last 12 years. That may change since the U.S. Export Verification Program was finalized June 17.

While source verification — from birth to slaughter — is a requirement, age verification is not. However, Stanton said, age verification "is an opportunity" and does allow the carcasses to bypass denatation and physiological checks for age at the packer. He noted electronic identification (EID) tags must be applied to cattle before they leave the ranch they were born on, as China does not allow back verification.

An animal's shipping certificate moves with it throughout the supply chain, and EID tags are allocated in the IMI Global online tag lookup system, Stanton explained. China bans all hormonal growth promotants and tests for synthetic hormones and beta-agonists upon import arrival. That's why many packers are currently utilizing Non-Hormone Treated Cattle (NHTC) and Verified Natural Beef program cattle.

Think your cattle meet the criteria? Stanton said it pays to make sure. "If you want to get involved in China, I would be talking to the packer or packers you're marketing product to and see what their requirements are going to be before you make any buying decisions," he said.

"We've had people who are going out and buying cattle that are source-and-age verified, and so they feel like they are in that market and they're ready to go to China. But they have not talked to the packer buyers yet to find out what those requirements will be, or what their expectations are," Stanton noted. "We don't want anyone to get into that kind of situation. My best advice is to talk to the guys you're dealing with and see what they think you ought to do."

Beyond China, Stanton discussed other market opportunities, and they all have one thing in common — documentation. He said if you're doing something to differentiate your cattle from others, you're going to have to keep track of it if you want to get paid.

For more information on the meetings, visit www.feedingqualityforum.com.

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GETTING OFF TO THE RIGHT START



vice president of customer solutions for Farm Credit Services of America (FCSAmerica) and Frontier Farm Credit, where he oversees the Young & Beginning Farmers and Ranchers program. More than 20

percent of Farm Credit's new loans made nationwide in 2016, almost \$13 billion, were made to beginning farmers and ranchers.

"Think through what you need and create a basic business plan that will cover all your bases."

Horne says planning and preparation are key to survivability in the beef, or any other, business. "What separates most successful busi-

ness leaders from the rest of the pack is their ability to make effective decisions, consistently, over time. Many point to experience as their guide for decisions; for beginning farmers, the best replacement for experience is planning. A good business plan will serve as the guideline for decision-making for years to come. Decision-making can be tough in a crisis when emotions come into play. You need to be prepared for all options." A critical part of that plan is ensuring adequate cash on hand for emergencies or opportunities. A business plan needs to outline cash flow projections and anticipate how various scenarios will play out financially.

Horne suggests starting with a

few basic questions: What is it that you aspire to do? When and how will you accomplish that? What are the skillsets you have or need to acquire? Who are the partners that can help?

He says look to your mentors, education and past work experience for answers.

"Look at what you like to do and what you are good at. Where those two intersect is where you should spend most of your time and energy. That's where the magic happens," says Horne. "Then look at what is not on that list. You have two choices – if you can afford it, find a partner or employee, otherwise it's time to learn a new skill."

One of the most valuable partners for the producer is a good financial advisor. "Very few people get into the beef business because they enjoy accounting or finance," says Horne. "Working with a financial expert can help demystify the planning process."

He encourages producers to use their first visit to a lender to provide information rather than asking for money. "Review your plans and walk through your ideas. Get to know each other."

He also recommends using the meeting as an opportunity to interview the lender. "Do they understand the business? Do they have ag expertise? Are they unbiased and willing to offer advice? Do they understand your geographical region, economy, weather and markets?" If the lender doesn't meet those criteria, Horne says, he might not be the right one for you.

The beef business is an expensive enterprise. In all segments of the industry, financial management acumen is at a premium. Staying profitable, year after year, is fraught with challenges.

For the young or beginning rancher or feeder, accessing start-up cash can be the greatest hurdle.

But there is help. Government, lending institution and extension programs add pieces to the puzzle and provide expertise to help the producer navigate financial waters, whether the situation involves starting from scratch or transitioning from one generation to another.

"Success starts with simple, yet careful planning," says Carl Horne,

One of the most important aspects of working with a lender is getting needed capital in the right form. Revolving lines of credit and installment notes are standard products built to the demands of customers, and sometimes come with creative options. “Your business plan should drive you to the right capital products, not the other way around,” says Horne.

It’s also important to examine the tools the lending institution offers. If you do your banking via smartphone, you will want features like FCSAmerica’s AgriPoint®, which offers remote account access from any device. Through the app you can scan checks for payment; manage profits by tracking cash contracts, crop insurance payments and break-evens; and providing direct access to financial statements and performance trends.

Horne says such tools address the age diversity found in ag today,

only one of the ways the landscape is changing. “We’re seeing rooftop farming in cities, community supported agriculture programs, immigrant farmers and more women involved in farming operations.” According to the USDA 2012 Ag Census, 30 percent of U.S. farms were owned by women, with 14 percent being principally operated by women. The number has nearly tripled over the past three decades. The number of Hispanic farmers in the U.S. has increased more than 20 percent in the last decade. Asian farmers have seen a similar increase.

All that means businesses and lenders have to streamline delivery of products designed to meet the needs of special market segments. FCSAmerica offers an annual young business conference called “Side by Side” to engage both members of a farm couple. New immigrants can require specialized

education programs.

Diversity in agriculture goes beyond demographics. Different market segments have different needs and potential. Horne cautions young farmers to “not get tunnel vision.” “Don’t settle on only one commodity or practice, such as cow/calf,” he says. “Be open to the diverse options where you can best leverage your strengths.”

Horne adds one more bright spot in the picture for the young producer: “There has never been a better time to be in agriculture. The next 20-40 years are going to be fascinating. There will be great challenges. And there will be astounding new technological advances. But every day, more and more, it’s a business of pennies, nickels and dimes. Management is critical. Find good business partners. Keep trying to grow. And be deliberate about your planning.” **FL**

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BY DON TYLER

SUPERVISOR COLLABORATION AND COOPERATION



Many ag operations have grown significantly during the last several years, and as this growth has occurred they have experienced challenges in developing the desired level of cooperation and collaboration among their increasing number of supervisors. When this growth is managed correctly it can be a great experience for the individual supervisors as well as the productivity and profitability of the entire business.

The development of supervisors is an ongoing process, helping them develop the skills and techniques required to balance their daily production duties with employee management. Quite often, the leadership of the feedlot tries to do all this development themselves. Sometimes

this works well, but often the results are significantly less than ideal. For best results, the most effective leaders establish a framework for development that includes supervisors helping supervisors.

During one supervisor's meeting I witnessed great cooperation and collaboration in action. None of the owners or upper managers were in this meeting. I was there to help facilitate the discussion, but soon found that these supervisors didn't need much assistance. One of the

9 supervisors in this group had been having some productivity and reliability issues with his staff. His department provided services that the others needed and because he was having challenges, so were the other supervisors.

Instead of each supervisor going around the table and listing their personal grievances with his management ability, they systematically shared how his department's performance affected the performance of their people. They offered ►



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Supervisor... from previous page

compliments and encouragement throughout the discussion, and though this supervisor did clearly see himself in the hot seat, he took their comments in stride and asked questions for clarification. He defended his people appropriately and tactfully, and accepted the comments and criticisms in stride with the tone they were delivered.

The group finished with clear action steps that the supervisor needed to take within his department,

but the other supervisors didn't leave themselves out of the solution. Some offered to talk to some of this supervisor's staff and help reinforce the company's production goals and cultural expectations. Others planned to talk to the employees in their own department so there was consistency in expectations, as well as support for every department to ensure compliance with procedures. One offered to go with this supervisor to their boss and help explain the

changes that were needed, the support of all the departments, and the specific steps they would be taking. This was crucial because one of the steps was to potentially terminate two employees for poor performance, and the need to hire their replacements even before they were terminated.

There could not have been a better outcome to this discussion. The supervisors developed and reinforced a new level of camaraderie, several issues were addressed, the supervisor that was struggling felt a greater sense of empowerment and confidence, and they developed a model for addressing similar issues in the future.

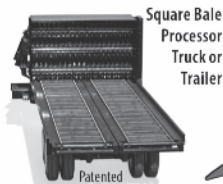
When supervisors throughout a company collaborate and cooperate, there is a camaraderie that develops and protects the entire operation. Employees learn that all the supervisors are unified in their objectives, expectations and

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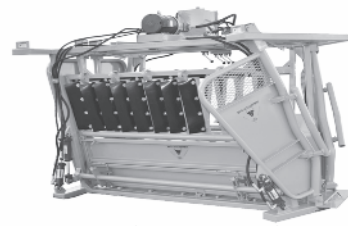
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Don Tyler is founder of Tyler & Associates Management Coaching. He can be reached at dhtyler@frontiernet.net or by calling 765-490-0353.

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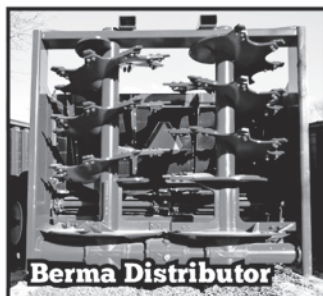
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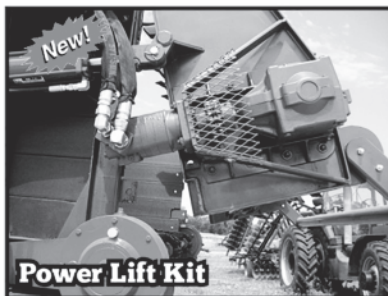
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