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ON THE BLOCK

The market has rebounded a lot since the Tyson fire back in August. However, we still see a lot of pressure on the un-weaned and unvaccinated calves. The rest of the market seems to be fine. Weaned calves have been trading about \$2 to \$5 higher nearly every week. Yearling trade is up about \$15 from its low.

Slaughter cow and bull trade is under pressure with heavy runs in Nebraska. The runs in most of the markets there are full as ranchers cut back herd numbers. We find cow trade steady in some instances, but in a lot of cases the market is really cheaper on what we would consider the "second cut." As a general rule, a stock cow is worth about \$1,000 to \$1,400.

The video sale has really been good! We've seen the 850-pound steers for delivery between November and January sell for \$141 up to \$145 or so. If you have some yearlings you want to sell and can sell them out front, it's a great opportunity to market them, especially if you have some extra grass or hay.

As tough as the market has been, we still have a lot of political issues on our plate that provide some uncertainty. Placement figures have been down for the last two or three Cattle on Feed Reports, so there's probably a hole out there somewhere in this market where it will get pretty dang good. I'm pretty optimistic about the cattle market next year. It's been a struggle for most of this year, and most of the time when that happens the next year will be pretty good. I'm not down on the market, but there's opportunity out there, and a person needs to take advantage of it through risk management.

Good luck and God bless.

Jackie



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—Photo by Rebecca Mettler. Cover design by Joann Pipkin.

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DATA-DRIVEN DECISIONS

Sensor Technology

Learning from simple measures

By Justin Sexten for Cattlemen's News

ountless sensors currently are used in precision agriculture. Those most common to beef and dairy cattle include tags for temperature, collars for rumination, leg bands for grazing, and patches for heat detection. In many cases this technology fills a key labor need by improving predictions around health or reproduction. The biggest challenge faced by most sensor technologies is the cost to use the technology at scale. Either the sensor itself is expensive or the infrastructure needed to operate the technology carries a front-loaded cost that makes payback difficult.

Once a technology overcomes the cost barrier, the next test is sensor application and re-



tention in field conditions. For calving or estrus detection, one must ensure timely shortterm application to be useful. Conversely most health metrics require long-term monitoring, so retention becomes the greater need. Getting a sensor to stay on a cow or calf can be a challenge, and this is even more difficult if the sensor must stay on for any amount of time.

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Products and answers that work™ Ø @HubbardFeeds III HubbardFeeds HubbardFeeds.com Another consideration is range of sensor operation. Once we get the sensor on the animal, the animal must come in contact with the "reader" at some point. Calving and breeding are often in semiconfinement situations where data capture is achievable. In pasture environments, the reader would be most useful to gather data when animals come to water or feed.

The final challenge for sensor technology to overcome is the ability to measure traits useful to the operator. Two ways to evaluate sensors for such useful traits exist. Measure a characteristic directly indicative of the behavior such as head movement indicating grazing or ruminating activity. Alternatively use an indirect measure such as walking activity to indicate the start of calving or estrus.

A recent article in the PLOS One Journal by Jorge Vazquez Diosdado and coworkers tested a simple indicator metric such as barn location to provide insights on the health of lactating dairy cows. They monitored the cow's position in the barn over the course of five days to see if they could predict lameness.

Cows were fitted with a GPS tracker and evaluated for lameness at the beginning of the experiment. The barn was divided up into feeding and resting areas with water tank and parlor entryways also noted. The short duration of the experiment should not go unnoticed, using only five days worth of data suggests opportunities for rapid diagnosis exist rather than having to train the technology for weeks.

After the short monitoring period of cow location in the barn, the research team concluded lame cows stay in resting areas and sound cows spend more time feeding. Not only did the lame cows have a reduced travel area within the barn but were more likely to stay within a particular location. I am sure many readers are suggesting these results are not unexpected as logic certainly supports sore-footed cows would travel less.

CONTINUED ON NEXT PAGE

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SENSORY TECHNOLOGY FROM PREVIOUS PAGE

The more interesting aspect of the study was the difference in classification between the technology and the expert lameness evaluators. The technology was compared against the expert evaluations. The technology identified two cows opposite the expert's original classification. Using this "alerting" data the cows were re-evaluated, and the technology had indeed identified a cow the experts missed.

If we use these results to think about future applications, imagine developing a mobile application that sends you a text message with a list of cows to evaluate every morning. This experiment used a simple metric, location over time, which we can determine using an easy-to-attach and durable sensor such as electronic ear tag.

For those of you sorting through a pen of weaned calves or new feedyard arrivals looking for calves ready to break, imagine how valuable a list of calves not visiting the feed bunk or water tank in the last 24 hours could be in your animal health program. The technology available today won't replace the stockman, but it certainly can make that job easier.

—Justin Sexten is vice president of strategy, Performance Livestock Analytics.



HEALTH WATCH

Be Ready for Anything

Prepare well to ensure healthy cattle

By David Rethorst for Cattlemen's News

For the year in terms of the year in terms of cattle health. Breeding season for fall-calving cows is just around the corner. Weaning of spring calves is underway and will continue for several weeks as crop harvest ends. Calving is about three months away for those who start calving in January and early February. Additionally, Mother Nature can bring her misery of cold weather, rain and snow to wreak havoc on livestock production.

Last winter resulted in more open fall cows than were expected, a trail of thin and sometimes down cows, and more weak and scouring calves than had been experienced for several years. Are you prepared if Mother Nature dials up another winter like last year?



First, is your nutrition program doing what you want? Are the cows gaining weight? A sound nutritional plan requires a balanced approach to protein, energy, trace minerals, macro-minerals, vitamins and water. The cow's body energy reserves at the time of calving are the primary factor influencing pregnancy rate in beef cattle.

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Body energy reserves, commonly expressed as body condition score (BCS), determine when beef heifer and cows will begin cycling after calving. A body condition score (BCS) of 5.5 is optimal for cows to come into estrus and conceive on a timely basis. Cows that are over a BCS of 6.5 are not only costly to maintain, they are less likely to conceive even though they come into heat as they should. Optimally, cows should have a BCS of 5 to 5.5 at calving and heifers should be 5.5 to 6.

If those fall cows were in good shape going into calving, they should be in adequate condition to begin breeding season unless they experienced adverse circumstances since calving began. Make sure the cows have adequate protein and energy to maintain BCS, and make plans for inclement weather.

For those cows that begin calving in January and February, please remember that those cows are in the third trimester of pregnancy. Nutritional demands of the fetus for protein and energy increase significantly during the third trimester of pregnancy because of the rapid fetal growth that is occurring. In order to meet the nutritional demands during the third trimester, a mature cow should receive a diet that is at least 7% crude protein (CP), and heifers should receive a diet that is 8.5% CP. If CP is below these levels, forage digestibility declines and, as a result, daily forage intake declines.

At this point, the animal begins using up body energy reserves, and the BCS drops. If not corrected, the result of this situation will be weak calves at birth. Cows dump their liver stores of trace minerals to the calf during the last three months of pregnancy in order for the calf's immune system to function properly the first two months of life. This leaves the cow nearly trace mineral deficient after the calf is born. We have approximately 40 to 50 days to get these trace mineral levels replenished in order for the cow to come into heat. The

CONTINUED ON NEXT PAGE

BE READY FOR ANYTHING FROM PREVIOUS PAGE

minerals of primary concern are copper, zinc, manganese and selenium.

While it seems early to talk about colostrum in winter- and spring-calving cows, optimizing nutrition during the third trimester will impact the quality of colostrum that is available to the newborn calf. The fact that formation of colostrum actually begins about six weeks prior to calving necessitates adequate protein and energy during this time.

Protein is necessary for the formation of antibodies to program the calf to properly absorb colostrum, and program the lifetime health and performance of the calf. Energy is required to ensure fat is in the cow's body to be used in the colostrum formation process. Fat serves as an energy source early in the newborn's life. It plays a critical role in warming the calf as it makes

its adaptation from the comfortable confines of mom's uterus to the often not-so-comfortable environment into which calves are born. In order for colostrum to contain adequate fat, it is essential for cows to be a minimum BCS of 5 to 5.5.

Other colostral components include the fat-soluble vitamins, vitamin A and vitamin E. Vitamin A is necessary for many tissues in the body while vitamin E is essential for immune function in addition to tissue requirements. Many calves died last year due to vitamin A deficiency. Calves are born with a very low vitamin A level, but adequate colostrum serves as the primary source of the vitamin for the calf.

After the fire in Germany a few years ago that destroyed the only plant in the world providing vitamin A, the vitamin A content of minerals has been reduced dramatically and contributed to many of the vitamin A deficiency cases that have been seen in recent years. Also contributing is the popularity of distiller's grain as a protein source, which has a low vitamin A content compared to alfalfa that was used as a protein source by many producers.

White blood cells (WBC) are the other important component of colostrum. These white blood cells play a very important role in both viral and bacterial immunity early in the calf's life. If the cow is adequately vaccinated for diseases such as infectious bovine rhinotracheitis (IBR) and bovine virus diarrhea (BVD), the lymphocytes, a type of WBC in the colostrum, are primed to fight these viral diseases.

While we are on the topic of colostrum, please give momma and newborn a few hours to bond before you tag or handle the calf as this will allow for better colostrum absorption and thus better passive immunity in the calf. One of rules of thumb I heard recently was to wait until the calf is dry to tag and handle it.

Regardless of the class of livestock, I encourage you to not only have a nutrition plan, but a shelter plan as well. Last year, I saw several producers whom I consider good cow people unprepared for a harsh winter, and it proved quite costly, both monetarily and in livestock losses.

I have used the phrase "Nutrition Matters" previously in this column, and I firmly believe that optimum nutrition will help alleviate many of the issues we see in beef production. However, for this month's column, the thought should be "Husbandry Matters" so that nutrition, shelter and handling are all included. Please be prepared.

—Source: Dr. David Rethorst is a veterinary practitioner and consultant, BeefSolutions, Wamego, Kansas.

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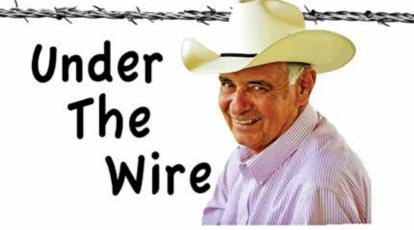
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Elanco



by Gary Hodgson

An Unfortunate Title

hat's in a name? Well for some, it's much more than was intended. Among the hundred or so emails my office computer attracts each day, I received a prime example of too much or too little thought

going into some names.

This message came from a group that advocates livestock grazing. How could I find fault with that? Their monthly message usually includes new ideas for rotational grazing, mixed-species grazing and other ideas to make livestock, and the folks who own them, happier. What caught my attention was a new program dubbed, "Soil to Table." I'll be honest, I read no further than that. My mind locked up with one thought, "Whoever came up with that name never ate at my house growing up."

In my "formative years" on my parents' eastern Colorado ranch, soil and table were two things destined to never meet. In fact, if my sister and I, along with visiting cousins and friends, did bring soil to the table, my mother had her own program known as "pain to the kid with dirt on their hands."

We might have just taken a break from branding calves or climbed out from under a broken manure spreader, but son or daughter, you had better leave the dirt in the washbasin. Hands and faces, suntanned or not, had better be covered with glistening, clean skin. Take it from me. A dirty hand reaching for a dinner roll would be met with a spoon or dull table knife across the back of it, wielded by my mother who seemed old to us but had the reflexes

of a cat. Carry a welt shaped like a spoon on the back of your hand for a week, and see who never wanted that to happen again.

Soil to the table? No way!

The erring child was not the only one at the table to get educated. The rest sat with wide eyes, afraid to look at each other or at our mother. Thinking back now about the experience, the hand holding the pen writing this is beginning to sting a bit. Some lessons just seem to stay with you. Even my father seemed acutely aware of the rule. Perhaps before kids came along he had tried "soil to table" himself. Even my little sister usually beat me to the sink on the back porch to scrub her hands lily white. I don't remember her working much. Her job seemed to be to annoy me. Somewhere, however, she had learned the "soil to the table" program was not for her.

I hope the folks who worked long and hard to come up with the title (for what is probably a very good idea) will go back to the drawing board on this one. Work at it, folks. Let's get something that doesn't remind people of poor table manners and painful lessons. How about "Soil Stays in the Sun, Clean Hands to the Table"?

— Gary and Sue Hodgson ranch near Brush, Colorado. While Gary is writing his "Under The Wire" column, Sue works at her award-winning photography and oil paintings. Together they team up to produce Livestock News Network, available Monday through Friday in Colorado and nine surrounding states plus the internet version, www.livestocktoday.com. They can be reached at (970) 842-2902 or office@hodgsonmedia.com.



Power to Choose

ways been strong. God made us that way.

He built us and created us using Adam's rib and ever since the beginning, man has relied on us.

Female or girl power is nothing new. Women alone have been the carriers of human Throughout history, life. women have endured and conquered unimaginable hardships fueled by nothing more than the desire to protect their young.

Women have kept the home fires alive while men conquered the world. They have nourished those around them even with empty larders. Some have clothed their families with repurposed feed sacks. Necessity is the "mother" of invention for a reason. Women are mothers. That is stinkin' powerful.

Yet, motherhood is not the only superpower of the woman. When men were taken away to fight wars, the women were left to manage farms, homes and life and work in factories. Now women can even fight in those wars right alongside men.

Today, life for a woman has never been better. Or more equal (at least in America).

My friend and neighbor is the perfect example of girl power. She left her life in the city, and she and her husband built their own home. They are not contractors. They are not crazy wealthy. But they did it. They built their new life on the farm the old-fashioned way. They saved up and built

Women have al- it up little by little as funds and time allowed. She YouTubed how to dig her septic system. She checked out library books that explained how to wire and plumb her house. She put sheetrock in each room.

> Over the summer, they finally added siding to the homemade home, and it is the sweetest place you will ever see. It is not massive. It is not fancy. Yet, it is perfect. Each part was built with their own hands. That is not all.

> While she and her husband were building their house, she raised food for the family. She

has pigs, sheep, chickens and bees.

Plus, she homeschools.

Talk about TRUE girl power. That's a power I can stand behind, which is more than I can say about the latest societal trend. Reading the national news headlines or following trends on social media, it makes one think that men have been transformed into chronic zombie predators. Seriously, all men are made out to be dangerous. The news tells me that all men think they are better than me. That all men think they are smarter than me. This is confusing to me.

I have lived in America my entire life. As a woman, I can wear pants. I can vote. I can own land. I can be educated. I cannot think of one thing that I am unable to do just because I am female.

As a mother to two boys, I am downright alarmed! I worry for their futures. Why does girl power have to mean male defeat? Why do we have to step on the men to get put onto some unrealistic pedestal? We are already powerful.

God ordained our place when he gave us the blessing and responsibility to bear young. (That does not mean you are unimportant if you are unmarried or are unable to have babies. All life is important.)

In my eyes, women are no better than men, and men are no better than women. Period. God made us as part of a puzzle. Each piece is different, but each piece is needed to make a complete puzzle.

So I have decided that my girls and I will stay away from all the clothes stamped with girl power (which is actually pretty hard to do). I will continue to live my own version of girl power by being the best wife and mother I can be. Because that is how I choose to live. That choice is where the power resides. I might help feed cows from time to time, and I might spend an entire day doing laundry and cleaning. But that's OK. Different does not mean less than. I hope to champion women, like my house-building friend, and men, who are living the life they chose.

That is a power all can get behind.

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TRENDING NOW

Know Your Cull's Worth

Dressing percentage has major impact on cull cow marketing

By Donald Stotts

U nderstanding the major factors that affect cull cow prices is important to every cow-calf operation's bottom line.

"Cull cows represent about 20 percent of the gross income in commercial cow-calf operations, with October often being the month for calf weaning and cow culling for springcalving herds," said Glenn Selk, Oklahoma State University Cooperative Extension emeritus animal scientist and managing editor of the university's popular Cow-Calf Corner newsletter.

Cull cows destined to go to packinghouses are graded by

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their fleshiness, with price differences set in large part by how the animals are graded. The U.S. Department of Agriculture's Market News reports cull cows according to the four grades: breakers, boners, leans and lights.

The highest conditioned cull cows are reported as "breakers." These are quite fleshy and generally have excellent dressing percentages. A body condition score seven and above is required to be in the breakers category.

The next class is a more moderate conditioned group of cows called "boners" or "boning utility." These cows usually fall in the body condition score grades of five to seven. Many well-nourished commercial beef cows grade out as boners.

The last two grades are the "leans" and "lights." These cows are thin, with body condition scores of four or below. In general, these animals will be lower in dressing percentage than fleshier cows and more easily bruised in transport than cows in better body condition. Lights are thin cows that are very small and would have quite low carcass weights.



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Selk said producers who sell cull cows should pay close attention to USDA Market News reports about the price differentials of cows in these classes. Cull cows that can be fed enough to gain body condition to improve from the lean class to boner class can gain weight and gain in value per pound at the same time.

"Basically, market cull cows during the fall and early winter while they are still in good enough condition to fall in the boner grade," he said. "If the cows are very thin, consider short-term dry lot feeding to take them up in weight and up in grade. This often can be done in 50 to 70 days with excellent feed efficiency."

There is little, if any, price per pound advantage of breakers over boners, plus cows lose feed efficiency if fed to that degree of fatness.

"It is important to recognize there is a variation in prices per hundredweight within each grade because of differences in dressing percentage between individual animals," Selk said. "Cow buyers are acutely aware of the proportion of the purchased live weight that eventually becomes saleable product."

Mathematically, dressing percentage is the carcass weight divided by the live weight multiplied by 100. Key factors that affect dressing percentage include gut fill, udder size, mud and manure on the hide, excess leather on the body and basically anything else that contributes to an animal's live weight but will not add to the carcass weight.

Most USDA Market News reports for cull cows will give price ranges for high, average and low dressing percentages for each grade.

"Many reports will indicate low dressing cows will be discounted up to \$8 to \$10 per hundredweight compared to high dressing cows and \$5 to \$7 per hundredweight compared to average dressing cows," Selk said. "Price differences typically are widest for leans and lights."

--Source: Oklahoma State University Cooperative Extension.

Switching Gears

MU specialist shares economics of switching from dairy to beef

onsolidation in the dairy industry has University of Missouri Extension helping dairy producers switch to beef.

MU Extension recently sponsored a session for producers at MU's Southwest Research Center in Mount Vernon, Missouri.

The dairy industry began consolidating after World War II as farms began to specialize in just milking cows, says MU Extension agricultural economist Joe Horner. The 1960s and 1970s saw more consolidation as fewer dairy farms made the expensive switch from selling milk in cans to bulk tanks.

Consolidation sprinted again over the last 10 years as dairies with more than 1,000 cows emerged. Their lower costs put downward pressure on milk prices. Years of tight profit margins and a shortage of labor led many Missouri dairies to switch to beef production. Dairy operations have dropped by two-thirds in Missouri in the past 15 years. The story is repeated in almost every traditional dairy state, Horner says.

Missouri lost 27,000 dairy cows from 2009 to 2019. By contrast, the state added 67,000 beef cows over the same period.

There are important differences between dairy and beef operations. Beef cows require less labor, but it takes a lot more of them to make a living, Horner says.

Culling rates are different: 29.9% over five years for dairy compared to 13% for beef. Beef producers do not have to raise nearly as many heifers to keep the same size of herd. Seasonal differences also exist between dairy and beef. Dairy's best prices come in the fall and the worst in the spring. Beef calves fetch higher prices in spring and lower prices in fall when spring calves go to market.

Beef cow-calf operations typically sell cattle twice a year, but most of the wealth comes through land appreciation, Horner says. Beef is a longinning game. It is about holding onto land and keeping input costs low.

Horner urges dairy producers switching to beef to clean up their balance sheets, pay off bills and clear short-term debt by selling assets they no longer need. Work with your accountant to manage taxes as you sell, he says.

"The switch to beef is a good way for dairy operators to use their livestock knowledge, skills and abilities built through a lifetime of milking cows," Horner says. It is also a good way to use existing resources as farmers approach retirement, he adds.

"Missouri is a huge producer of feeder calves," he says. "Dairy farmers who switch

to beef have a natural fit for backgrounding those calves. They already have highquality forage and feeding systems in place and are accustomed to managing lots of dollars."

The good news is that you do not need to milk beef cows every morning and night, and it is easier to get away from the farm for a few days.

—Source: University of Missouri Extension release.



TRU-TEST



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A Look at Calving Distribution

A tool for evaluating reproductive performance

By Rachel Endecott

alculating calving distribution is one way to evaluate the previous year's cow herd reproductive performance. This assessment calculates the number of cows calving in 21-day periods during the calving season (the length of a cow's estrous cycle).

Two methods are used to determine the starting date. The first is to add 283 (average gestation length) to the first breeding date or bull turnout date, and the second is to assign the starting date as the day when the third mature cow calves. In herds where cow age can be identified along with calving date, calving distribution can be calculated for young cows separately from older cows, which may provide information about breedup performance that might not otherwise be easily observed.

While cows are grouped by age for the purposes of this article, other groupings like breed-of-sire may also be useful. Table 1 on the next page illustrates an example calving distribution assessment by cow age from the Beef Improvement Federation Guidelines publication.

What is a good benchmark number for calving distribution? One example comes from the North Dakota Beef Cattle Improvement Association Cow Herd Appraisal Performance Software (CHAPS) program. The 2018 CHAPS benchmark data for percent of cows calved by 21 days was 60%, with 87% of cows calved by 42 days.

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From Table 1, do you see a group of cows you might be more concerned with compared to another? Perhaps the 3-year-olds? Check out the graph of this data in Figure 1 for a visual perspective.

In this format, the 3-year-old cows really jump out. All other age groups have the largest percentage of cows calving during the first 21 days, but the majority of 3 year olds calved during the second 21 days. Many beef cattle producers find that getting firstcalf heifers to breed back is a challenge. Some strategies to improve young cow reproductive performance include implementing proper heifer development and pre- and post-calving nutrition programs.

Some producers start the yearling breeding season 2-3 weeks ahead of the mature cows in an effort to give the heifers more time to recover before breeding season. On the other hand, some producers implement a shortened (around 30 days) breeding season for yearling heifers in an effort to put selection pressure on reproduction. In this scenario, pregnancy rates will be lower than in a longer breeding season, so more potential replacement heifers may need to be retained to ensure an appropriate replacement rate for the cow herd.

Keeping young cows separate from older cows before and after calving (if conditions allow) might also be a good young cow reproductive management strategy. Since young cows are still growing, their nutrient demands are higher than mature cows. Managing them separately allows for more targeted feeding to meet nutrient requirements. When managed together, feeding to meet mature cow requirements will result in a nutrient shortage for the young cows. Feeding to meet young cow requirements will result in overfeeding the mature

CONTINUED ON NEXT PAGE

CALVING DISTRIBUTION FROM PREVIOUS PAGE

cows, which could be a fairly expensive proposition.

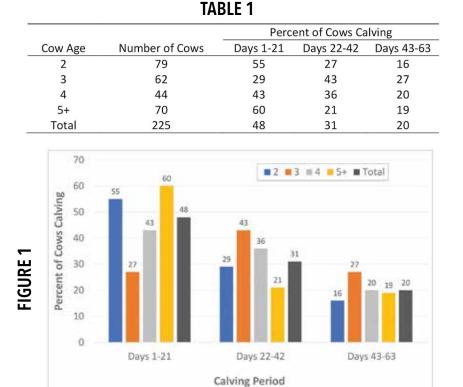
Does calving distribution have an impact on the bottom line? Absolutely. Age at weaning obviously has a huge impact on weaning weight, so more calves born early in the calving season means a heavier set of calves to offer vour buyers. Furthermore, heifers who calve early with their first calves have been shown to have greater lifetime pregnancy rates, leading to increased longevity in the herd. In one study, heifers who calved in the first 21 days of calving weaned heavier calves than their later-calving

herdmates, which amounted to the production of nearly one extra calf during their lifetimes.

As you plan for your next breeding season, an evaluation of calving distribution might give you some good insight on how last year's management environment impacted cow herd reproductive performance.

—Source: American Simmental Association. Reprinted with permission.

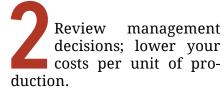
(Figure 1, Right) Example calving distribution assessment. Percent cows calving in each calving period by cow age.



QUICK TIP

BQuick Year-End Finance Tips

Document your cost of production by participating in Standardized Performance Analysis (SPA) programs.



Check your financial management plan and make appropriate adjustments before the end of the year.

—Source: Dale Blasi, K-State Extension Beef Specialist.

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TRENDING NOW

MU Southwest Research Center Opens New Education Building

Facility to help carry out research, education, outreach

t was a rainy afternoon on Oct. 25, but that didn't dampen the mood for the ribbon cutting of the new Agricultural Education Center at the University of Missouri's Southwest Research Center in Mount Vernon. About 120 people including University personnel and people from the local agriculture and business communities turned out for the celebration.

Selling:

1 Spring Yearling Herd Bull • 108 Fall Yearling Bulls (Semen Tested Ready to Work) • 60 January Bull Calves (Wintering Program Available) • 4 Embryo Lots • 67 Fall Calving Pairs • 31 Spring Bred Cows • 54 Spring Bred Heifers • 89 Fall Yearling Heifers • 43 Spring Heifer Calves

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All performance information is included in the sale book or on update sheets available on our website and on sale day. **Highlights include:**

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- 5 head of sale cattle post +300 \$C Values or higher. 140 head are in the top 5% or better.

Lot 1 is the Number 1 \$C female at SydGen. Currently recording +\$355 on that index, she is a fall yearling daughter of Exceed.

Progeny of Bakers Northside 6007, SydGen Rock Star, SydGen Big Branch, EXAR Stud 4658B, SydGen Exceed 3223, Connealy Cool 39L, Mead Magnitude, SydGen Omaha, SydGen Blacksmith 4010, SydGen Wake Up Call 9446, SydGen Trust 6228, SydGen Black Pearl 2006, SydGen CC&7, SydGen Black Diamond 2769, SydGen Aim, HPCA Early Bird 65, BCA Patriarch 4113, BDAR Tycoon C30, BCA Jeremiah 5103, SydGen Resolve 7132, SydGen Expansion 5917, Sitz Royal 9784, ECO Lombardi, MOGCK Sniper 16, SydGen Merit 6553, SydGen Sizzle, SydGen Blueprint and SydGen 928 Destination 5420 will also be highlights of this sale offering.

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In what many have seen as a long time coming, this facility was opened almost 60 years after the MU Southwest Research Center was dedicated on Nov. 5, 1959. Not since the administration building was completed in 1966 has the Southwest Center had a construction project this ambitious. Its main room is 3,800 square feet, with two partitions to make three separate meeting spaces. It also contains a good-sized lobby with bathrooms and a catering kitchen that is unfinished at this time. Due to the proposed facility being well over budget, several things such as the kitchen appliances were removed to get the project within budget, with the hope of furnishing the facility as funds become available.

"This building will further our mission of research, education, outreach, demonstration and engagement in this area of the state. And folks, to be clear, this is not just a CAFNR facility, but one for the entire University of MO to utilize right here in Mount Vernon," said David Cope, Southwest Center superintendent.

"We are extremely grateful and thrilled to have this outstanding facility for the people of Southwest Missouri. This structure will allow us to host a greater range of meetings and engagement opportunities than we've ever been able to accommodate in the past," said Cope.

Historical photos showing Southwest milestones were also displayed around the building. These included the pasture-based grazing dairy, boar test station and multiple research projects, including fescue toxicity and cattle drinking water preference studies over the years.

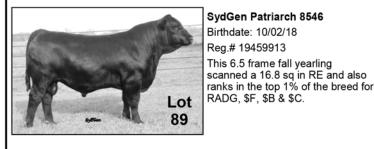
Other speakers included vice chancellor and dean of the MU's College of Agriculture, Food, and Natu-

CONTINUED ON NEXT PAGE

41st Annual Production Sale Saturday, November 23, 2019 10 a.m. ■ at the Farm ■ Mexico, MO



SydGen Enhance 8825 Birthdate: 09/01/18 Reg.# 19459978 This 6.8 frame son of ENHANCE had the Number 1 adj WW, Number 1 adj YW, Number 1 adj RE and the Number 6 adj IMF scan in the Fall Bull division.



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ON THE CALENDAR

Driven by 2020 Vision

Missouri Cattlemen's Association to host convention and trade show

Industry Convention and Trade Show will be held at the Holiday Inn Executive Center from Jan. 10-12. The theme is "Driven by 2020 Vision."

"Convention is a time for cattlemen and women across the state of Missouri to come together to celebrate a year's worth of accomplishments, but also to collaborate for next year," said MCA President Bobby Simpson. "Our theme, 'Driven by 2020 Vision,' embodies the idea that Missouri cattlemen are ready to tackle any obstacle that comes their way this year."

he 2020 Missouri Cattle for our members to connect with one another and talk to other industry professionals about new technologies and production methods," said MCA Executive Vice President Mike Deering. "We ensure that our producers are equipped with the skills and information they need to run their operations. From our trade show, to informational workshops, to policy meetings, our three-day convention is jampacked."

> Register online by Dec. 11, 2019, or contact Sydney Thummel at sydney@mocattle.com.

> —Source: Missouri Cattlemen's Association.

"Our annual convention and trade show is an opportunity

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Tract 4 & 5: 20 +/- acres, open pasture, County Road 2200 road frontage

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MU SOUTHWEST RESEARCH FROM PREVIOUS PAGE

ral Resources (CAFNR), Chris Daubert, Missouri Speaker of the House Elijah Haahr, and Southwest Regional Director of MU Extension Jay Chism.

It was announced that Dean Daubert would have CAFNR match individual donations up to \$500 to help furnish the facility, which in addition to the kitchen needing furnished, is also in need of tables, chairs, projectors and a sound system. If anyone would like to donate to the Southwest Center's new facility, they can do so by going to southwest.missouri.edu and clicking the "Give to Southwest" button.

Speaker Haahr spoke on the importance of agriculture to Missouri and to rural communities in particular.

Jay Chism mentioned the role that MU Extension has with the Southwest Center is much like a "hand in glove" approach to working together. The research conducted at the Southwest Center needs to reach those impacted by it. MU Extension is in many ways the conduit for that research to touch target audiences.

The MU Southwest Research Center looks forward to using this facility for many years to come.

-Source: University of Missouri Southwest Research Center.





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Overriding Mother Nature

Fetal programming: you can do something about it

By Jordan Thomas for Cattlemen's News

F etal programming is a broad term. For the most part, it refers to this idea of something that happens before birth impacting an animal after birth. Usually, we are talking about nutritional restriction during pregnancy.

You have probably also heard the term epigenetics, which is a related concept referring to silencing or overexpression of genes. Both topics are trendy areas of research right now, but beef producers hear more about them than the average person does.

This is because of a couple reasons. The first is that this kind of data is hard to collect in human beings, and it would be unethical to collect this kind of data in a controlled research project. Nobody would restrict nutrition of a pregnant mom in order to look at negative effects on a child. Of course, we don't want to do that to a cow and calf either, but cattle provide an opportunity to look at this question because nutrient restriction can sometimes happen in cow-calf management systems.

Of all of the animal agriculture industries, our industry is probably the most sensitive to environmental effects. Poultry, swine and conventional dairy are raised in somewhat environments. controlled but beef cattle go through droughts, blizzards or even seasonal periods of undernutrition. When a cow is pregnant during those events, is the calf affected? That is what fetal programming research is all about.

We still don't know much about fetal programming, but here is some of what we do know. First, stressful events will have different impacts depending the stage of pregnancy. That is because different parts of the fetus are developing at different stages,

and also because the nutritional requirements of the cow are different based on the stage of pregnancy.

When a cow's nutritional requirements are high, it means it is easier for her to be in a deficit. We used to talk about the third trimester as the really critical stage of pregnancy, since nutrient requirements associated with fetal growth are highest during this time. But while those higher nutritional requirements do mean it is easier for cows to be in a deficit in the third trimester, negative effects of undernutrition exist at all stages of pregnancy.

For example, some studies have shown negative effects on lung function if nutrient restriction occurs in early gestation, or negative effects on development of reproductive organs if nutrition occurs mid gestation. Restriction in the third trimester is most easily studied and has shown effects on growth, carcass merit and rates of puberty attainment. But overall, nutrient restriction at any stage has consequences, and probably far more consequences than have been discovered so far.

Certainly, some strides have been made in understanding how fetal programming works. The hard part is what we actually do about it. What can you do differently in your operation to manage some of these potentially negative effects of fetal programming? The easy answer is just to say, "Always make sure you are meeting the nutritional requirements of your pregnant cows."

That's simple, but as someone with a cow-calf background, I realize that is also a little too simplistic. This is really an economic question. Pouring thousands of dollars into feeding cows to maintain body condition during a drought might help you avoid those effects of fetal programming, but it might also drive you right out of the cattle business. Producers have options to avoid negative effects of fetal programming in a costeffective way.

When I think about fetal programming and nutrient restriction, I think more about the whole management system than I do about the one

CONTINUED ON PAGE 20

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if so desired. New 5-6 barbed wire fences with cross fencing for cattle grazing rotation and property is completely border fenced. Amenities include commercial grade working pen facility and load-out chutes for livestock. Additional improvements include one older barn for machinery storage, one 54'x60' hoop barn for hay storage, and one 40'x 30' insulated metal shop building on concrete with 110v and 220v outlets, electric bay door, restroom and shower facility. There are two, older small homes, in state of disrepair, could be used for hunters primitive shelter. This property offers several ideal building sites for construction of homes, lodges, outbuildings, etc.

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MOTHER NATURE FROM PAGE 18

specific event. Droughts happen. Variation happens. "Hundred-year floods" don't seem to know they are supposed to happen only every hundred years, and I am not sure Missouri has ever actually got her average annual rainfall. As odd as it sounds to say, average isn't normal; extremes are normal. That is just a part of this business.

The question is whether your management system is capable of adapting to what Mother Nature throws at you this year. Here are my tips for a drought-tolerant system.

> Manage your forage **base.** The best thing you can do to have a bombproof management system is to manage for the maximum carrying capacity possible on your farm. To do that, you have to have a system, avoid overgrazing and be adaptable.

> Monitor forage availability, regrowth and rainfall to guickly identify if or when the carrying capacity of your land is decreasing. Some studies have demonstrated a relationship between precipitation during gestation and performance of those calves. The forage a cow does or does not have her calf.

 Know who your least profitable grazing animals are and have a plan to get them off of your farm as quickly as possible when your carrying capacity drops. That might be stockers, less profitable cows or both. Know who you will sell before you ever need to sell them, and commit to actually selling those animals at the first sign of pasture quality loss. If you are paying attention and being proactive, you will actually beat the market decline that happens during droughts.

• Have a defined breeding season and have your veterinarian pregnancy check your cows. Do it early enough that you can

accurately determine fetal age and expected calving date. Your cows that have conceived late in the breeding season are by definition your less profitable cows. They will be calving late, weaning lighter calves and will be less likely to re-breed next year. If you get in a situation where you need to sell pregnant cows, those should be the first to go.

• Supplement strategi**cally.** If you can pay for it and you have a way to store commodities (bins, commodity barns, etc.), buy those feeds when the market is right and have them on hand. A sacrifice paddock, hay and supplement in July and August might be exactly the right financial move in a tough drought year. It'll hopefully minimize any negative fetal programming of calves, and it will also give pastures time to recover. Work with your regional extension livestock specialist to make a plan.

That is how to be proactive, but what if the damage is already done? What do you do about those calves that you know went through a drought or tough spell? Not much research answers that question from a management standpoint, but again, I think it is available to her will affect more of an economic ques-

> When a cow's nutritional requirements are high, it means it is easier for her to be in a deficit.

tion. Make an informed decision, and make some choices that minimize risk. For example, growth and carcass merit can be impacted by fetal programming, so that load of steers from the drought year might be one you want to sell rather than retain ownership on all the way through finishing. Heifers may have delayed puberty. I would be especially sure to have them developed to an adequate target weight before breeding, and I would

also encourage you to use a progestin-based estrus synchronization protocol (MGA or CIDR) to get them jumpstarted cycling.

If you find you still can't get a number of those heifers pregnant early in the breeding season, those heifers should become feeders. Heifers that become pregnant late in their first breeding season will fall out of the herd faster as cows. and they may not even wean enough calves to cover their development costs. Don't let poor performance of some drought-stricken heifers compromise your standards. Keep only your early-conceiving heifers.

Nobody wants to be hit with a drought, but actively managing your herd through it has a lot of silver linings. By culling out low-performing cows, maintaining your top performers in the best condition possible, and making sure you avoid overstocking, you do far more than just minimize some of the negative effects of fetal programing. You come out the other side of the drought with a better cow herd than you started with and an opportunity to market high-quality calves as the market returns.

—Source: Jordan Thomas is assistant extension professor, animal science, University of Missouri-Columbia.

		GRANGE * (eprinomectin)		
Extended-Release Injectable Parasiticide 5% Sterile Solution NADA 141-327, Approved by FDA for subcu For the Treatment and Control of Internal a		tle on Pasture with Persistent Effectiveness		
CAUTION: Federal law restricts this drug INDICATIONS FOR USE LONGRANGE, when administered at the rec of 20 species and stages of internal and ext	ommended dose volume o	of a licensed veterinarian. if 1 mL per 110 lb (50 kg) body weight, is eff	ective in the treatment and control	
Gastrointestinal Roundworms	Lungworms	Parasites	Durations of	
Bunostomum phlebotomum –	Dictyocaulus		Persistent Effectiveness	
Adults and L ₄	viviparus – Adults	Gastrointestinal Roundworms		
Cooperia oncophora – Adults and L_4	huuits	Bunostomum phlebotomum	150 days	
Cooperia punctata – Adults and L_4		Cooperia onconhora	100 days	

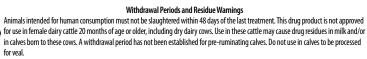
Cooperia oncophora – Adults and L_4	Adults	
Cooperia punctata – Adults and L_4		
Cooperia surnabada – Adults and L_4		
Haemonchus placei – Adults	Grubs	
Oesophagostomum radiatum — Adults	Hypoderma bovis	
<i>Ostertagia lyrata</i> — Adults		
<i>Ostertagia ostertagi</i> — Adults, L ₄ , and inhibited L ₄		
Trichostrongylus axei – Adults and L_4	Mites	
Trichostrongylus colubriformis — Adults	Sarcoptes scabiei var. bovis	

Parasites	Durations of Persistent Effectiveness			
Gastrointestinal Roundworms				
Bunostomum phlebotomum	150 days			
Cooperia oncophora	100 days			
Cooperia punctata	100 days			
Haemonchus placei	120 days			
Oesophagostomum radiatum	120 days			
Ostertagia lyrata	120 days			
Ostertagia ostertagi	120 days			
Trichostrongylus axei	100 days			
Lungworms				
Dictyocaulus viviparus	150 days			

DOSAGE AND ADMINISTRATION

LONGRANGE® (eprinomectin) should be given only by subcutaneous injection in front of the shoulder at the recommended dosage level of 1 mg eprinomectin per kg body weight (1 mL per 110 lb body weight).

WARNINGS AND PRECAUTIONS



Animal Safety Warnings and Precautions

The product is likely to cause tissue damage at the site of injection, including possible granulomas and necrosis. These reactions have disappeared without treatment. Local tissue reaction may result in trim loss of edible tissue at slaughter. Observe cattle for injection site reactions. If injection site reactions ar suspected, consult your veterinarian. This product is not for intravenous or intramuscular use. Protect product from light. LONGRANGE® (eprinomectin) has been developed specifically for use in cattle only. This product should not be used in other animal species. When to Treat Cattle with Grubs

LONGRANGE effectively controls all stages of cattle grubs. However, proper timing of treatment is important. For the most effective results, cattle should be treated as soon as possible after the end of the heel fly (warble fly) season.

Environmental Hazards Not for use in cattle managed in feedlots or under intensive rotational grazing because the environmental impact has not been evaluated for these

scenarios.

Other Warnings: Underdosing and/or subtherapeutic concentrations of extended-release anthelmintic products may encourage the development of parasite resistance. It is recommended that parasite resistance be monitored following the use of any anthelmintic with the use of a fecal egg count reduction test program.

TARGET ANIMAL SAFETY

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Store at 77° F (25° C) with excursions between 59° and 86° F (15° and 30° C). Protect from light. Made in Canada. Manufactured for Merial, Inc., Duluth, GA, USA. "The Cattle Head Logo and "LONGRANGE are registered trademarks of Merial, Inc. @2015 Merial, Inc. All rights reserved. 1050-2889-06, Rev. 2/2015, 8LON016C

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Set 'Em Up for Success

Being proactive about calf health can pay off

By Lisa Henderson for Cattlemen's News

Producers who use a fall calving program often cite improved calf health as a major advantage. Fall calving usually offers better weather conditions and improved forage grazing for the cows than late-winter or early-spring calving. Those factors usually decrease the risk of contamination and a buildup of pathogens that may infect a newborn calf.

Further, newborn calves born in the fall are less likely to be stressed due to weather. Under wet, muddy and cold conditions, calves' energy requirements are greater and have been shown to diminish the ability of the calf to absorb colostral immunoglobulins.

Even with those advantages, however, fall-born calves require management to maintain health. With winter approaching, Randal Spare, a veterinarian at Ashland Veterinary Center in Ashland, Kansas, says producers should, "Use a vaccination program that minimizes risk of disease for their particular geographic areas, and then also prepares calves for the next major stressor in their production cycle, which is most likely weaning."

Sandy Johnson, a livestock specialist with K-State Extension says combating winter's stressors starts when the calf is born.

"Making sure a calf is prepared for any winter weather stressors starts with adequate intake of high-quality colostrum from a dam that has the nutrients she needs to build good immunity and has received timely vaccinations appropriate for the region," Johnson says.

Calves born in September and October are less likely to experience wet and cold weather conditions common in spring calving systems. Consequently their health and survival may exceed spring-born calves.

"The beauty of fall-born calves is that they are born when cows are rarely supplemented, and the cows are in more than adequate body condition," Spare says. "This sets the calf up to receive more than adequate levels of colostrum because it is born in a time of non-environmental stress."

Calving in the fall allows your cows to roam to find comfortable surroundings to calve. When cows are able to find their own calving grounds, it will likely be a long distance from other cows and calves. The chances of spreading pathogens from one pair to another is greatly diminished when space is not restricted.

Healthy calves are better able to reach their growth potential, too.

"It is apparent when fall-born calves are subjected to winter or weaning stressors, they are much more likely to remain healthy and exhibit their genetic potential," Spare says. "Using an immunization program that minimizes risk of disease for the particular geographic location and starts to set the calf up for weaning process later in the production cycle is critical." Even though fall calving can improve health, Spare says producers must continue to be proactive against bovine viral diarrhea (BVD), the viral disease caused by the bovine viral diarrhea virus (BVDV), which can be transmitted in a number of ways.

"BVD management is an absolute must, no matter if springborn or fall-born," Spare says. "When BVD control is maintained as the cornerstone of the health management, other disease challenges are less likely to overwhelm the calf's immune system. The cow herd manager must certainly be aware that BVD control is a three-pronged approach of testing, vaccination and biosecurity."

Still, Spare, who works with many ranches that use fall calving, says the practice offers significant health advantages.

"If we were to look at the literature and practical experience, it is apparent that fall-born calves have less morbidity and mortality while they are on the cow than spring calving cow herds," he says. "Because of the intentional supplementation programs for the cows, the calves are consuming the same diets as the cows and rarely are they nutritionally stressed. When these calves can eat and consume, they will not become disease challenged." Fall calving means your cows will be lactating during the winter, and getting ready for rebreeding. Spare says it will be critical to understand your cows' needs and have a winter feeding plan.

"Hopefully producers have assessed their cows' body condition scores prior to calving and have a plan to feed going forward," he says. "Being in the middle or end of fall calving, our next production event is breeding season. From the cow's perspective, this is the physiologic taxing time period as she is hitting peak lactation, and we are asking her to cycle quickly so that she will have the opportunity to conceive early in the breeding season."

This time of year, Spare says, production is about knowing what forage is available to feed the cow herd.

"It is imperative to know the level of nutrient content in the stockpiled forages or in the baled forage," he says. "By taking samples for nutrient analysis, we can know for sure what the moisture content, protein, energy and digestibility of the available feed. After knowing this, a supplement plan can be implemented to meet the cows' nutritional needs for lactation and breeding. As the weather changes and becomes colder and or wetter, the nutritional requirements will increase."

Fall calving offers significant health advantages, says Dr. Randall Spare, a Kansas-based veterinarian. Better weather conditions at calving time and improved forage grazing for cows are two benefits. "The beauty of fall-born calves is that they are born when cows are rarely supplemented, and the cows are in more than adequate body condition," Spare says. —Photo by Jillian Campbell for Cattlemen's News.



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Fescue and the Breeding Season

Toxicosis can impact reproductive success

By Macey Hurst for Cattlemen's News

n easily grown and commonly used forage crop in Missouri is tall fescue. But with that convenience comes one major obstacle. Tall fescue toxicosis is a widespread problem for cattle producers across the Midwest. Eldon Cole, University of Missouri Extension livestock specialist, and Tim Schnakenberg, University of Missouri Extension agronomy specialist, give a detailed look at the epidemic and tools to fight it.

Fescue: A costly choice

Tall fescue continues to be the major forage choice for livestock producers for good reason: it is very palatable to livestock, especially in its early growth stages, according to Schnakenberg.

"It is durable, standing up to heavy grazing pressure, drought, insects and diseases and is very cold-tolerant. It is the best perennial fall and winter grazing option we have, contributing high-quality forage well into winter if properly stockpiled in the fall. And it is fairly easy and inexpensive to establish," he said. "However, its big downside is the fescue endophyte problem that it has."

It's the endophyte issue that plagues 80% to 90% of the tall fescue pastures in the Ozarks, Schnakenberg adds.

University of Missouri research found the epidemic costs Missouri beef producers more than \$160 million every year. The endophyte fungus can be found in many parts of the plant and infects cattle with fescue toxicosis.

"Fescue toxicosis results from cattle grazing plants or eating hay that contains an endophyte fungus, which produces ergot alkaloids," Cole said.

Of those alkaloids, ergovaline is the most detrimental. It impairs blood flow throughout the animal's body, which is reflected through various physical symptoms. "Many of these symptoms are a result of constricted blood flow and increased body temperature," Schnakenberg said. "As a result, during the summer, cattle spend more time in the shade and in ponds trying to cool off, instead of grazing grass or spending time at the feed bunk."

This presents a big issue for feeder calf production as it causes drastically reduced weight gain. Average daily gains could drop as much as half a pound to a pound per day when cattle are consuming infected forage in hot weather and spending less time consuming nutrients. In addition, this weakens their defenses against disease.

Toxicosis: Watch for the signs

Other endophyte consumption symptoms include more signs of heat stress, elevated respiration rate, fescue foot, increased internal body temperature and decreased hormone levels, specifically the milk-producing hormone, prolactin.

These particular effects reveal themselves in many ways, both physically and in reproductive success. Common outward signs of toxicosis include rough hair or slow to absent shedding of winter coats in the summer and frozen ears, noses and tails in the winter.

Toxicosis can also affect the hooves of livestock, often resulting in swelling in the lower leg below the hock, lameness of one or both rear hooves, and even skin openings twisting around the ankle and hoof areas in advanced stages. This is caused by the reduced blood flow and may also be present in the tail switch. Both the tail and hooves could eventually be lost. If not, the toes may grow longer and cause limping. At this point, Cole says the best option is probably selling the animal, although hoof trimming is also an option.

Unfortunately, many other costly effects of the fungus and main alkaloid are exhibited in the livestock's reproductive health.

"High levels of ergovaline can elevate body temperatures above 104 degrees," Cole said. "These temperatures may cause a pregnancy loss especially in the early stages. Bull fertility can be affected by high body temperatures, which results in lower semen quality. Affected bulls may be less active in the breeding pasture, especially if fescue foot is involved."

CONTINUED ON NEXT PAGE



Fescue toxicosis can affect the hooves of cattle, resulting in swelling below the hock as well as lameness. Skin openings around the ankle as seen above are common in advanced stages. *—Photo by Joann Pipkin.*

BREEDING SEASON FROM PREVIOUS PAGE

Many options are available for producers encountering these issues. The most obvious, but seemingly most challenging, is simply avoiding consumption.

Dilution: A notable solution

"Reducing cattle's exposure to toxic fescue is a big step to take in combatting the problem. Dilution with a variety of forages or concentrates helps, especially if the problem is detected early. There are tests available to check pastures and hay for toxin levels," Cole said. "However, cattlemen should know their pastures and cattle from the outward signs if there's a serious toxicity problem. If the cattle live in mud holes, have mud all over them and retain their hair coats year-round, there's a problem."

Cole continued, noting that some cattle are genetically better at handling endophyte. This can be observed in cattle habits and steps should be taken to phase out those genetically toxic, fescue-sensitive cattle.

Cow-calf producers can also avoid risk by making a switch in breeding practices.

"Cow-calf operators may choose to move to fall-calving, which helps by moving the breeding season to cooler weather," Cole said. "If you stay with an early-in-the-year calving time, try to complete the breeding season by mid-June to avoid hot weather."

Schnakenberg said those producers can increase conception rates with proper herd rotation.

"The University of Arkansas found that with careful planning to put mid-to-late semester cows onto novel fescue and off of the hot fescue," Schnakenberg said. "Their calving rates have been excellent, especially in the fall, even when the paddocks only have about 25% novel fescue."

Regarding dilution, producers can choose from a variety of alternative forage crops to integrate into pastures.

"The use of forages that don't contribute to the problem is needed," Cole said. "Renovating pastures with as little as one-fourth to one-third of something other than Kentucky 31 fescue is a good start. Diluting with legumes is also a good place to start."

Schnakenberg echoed saying reducing endophyte presence in infected pastures really is the best bet.

"Dilution is the solution.' This is commonly done by adding legumes into the pasture. Not only is pasture nutrition enhanced but the forage dilutes the impact of the endophyte," Schnakenberg said. "Having the option of summer pas-

ture with warm season grass options will dilute and also meet good nutritional pasture needs of the animal throughout the hot summer. Options may include crabgrass, Caucasian bluestem, bermudagrass, big bluestem, Indiangrass, Switchgrass and Eastern gamagrass."

Others are "novel" or "friendly" endophytes that lack toxins but remain hardy as a forage crop.

"University of Georgia research has found that cattle that previously grazed novel fescue entered the feedlot 117 pounds heavier and finished 108 pounds heavier than cattle that grazed hot fescue," Schnakenberg said.

Although it is a large investment of time and labor, implementing new forage practices could have significant returns. Cole said, for those considering retirement or liquidation, renovation may not be the most efficient method, but it is ideal for others with future expectations from the land.

"I encourage farmers who have fescue problems to think about the future generations of their family. Consider pasture renovation on some of the worst affected pastures," Cole said. "The payback may come sooner than you think."

Unique Methods Help Manage Fescue Toxicosis

Throughout Eldon Cole's career in livestock production, he has seen and

heard of some unique methods farmers and ranchers use to cope with fescue toxicosis. While many are not research-based and might actually contradict others, here a few interesting tactics producers tried when combating endophyte.

- Include walnut by-product supplement.
- Give aspirin to reduce temperature.
- Feed tea leaves, caffeine, oregano, garlic or apple cider vinegar.
- Clip hair off affected cattle in heat.
- Provide a mix of charcoal, cayenne pepper, salt, vinegar and kelp feed at the rate of 8 to 10 ounces per day.

Although many of these unconventional tricks may or may not work, Cole says the only truly effective methods

TIP: Get more details on managing fescue toxicosis online at https://extension2. missouri.edu/g4669.

are pasture management, livestock observation and genetics.

"I'd have to stick to diluting toxic fescue pasture or hay with legumes. On the hay side, I really like alfalfa as a dilutor. On pasture, ladino clover and lespedeza are good," Cole said. "Watch your cattle closely for lost tail switches, slow shedding, labored breathing, extended calving intervals and cull them. I am confident researchers will get the genomics figured out so a genomic test will help to select cattle that can handle "hot" Kentucky 31 fescue."

—By Macey Hurst for Cattlemen's News.

Preparing for Winter On The Farm

Make sure you are ready for frigid weather

By Kelsey Harmon for Cattlemen's News

The Farmers' Almanac is a bit controversial when used as a resource for winter weather predictions. Some farmers swear by it while other meteorologists and climatologists question its accuracy. It has been published since 1818 and claims to rely on a series of rules that have evolved into a formula that the publishers view as both mathematical and astronomical, according to its website farmersalmanac.com.

The Farmers' Almanac is calling for frigid and snowy winter conditions for the fourstate area and beyond. In fact, the website quotes Peter Geiger, the seventh Farmers' Almanac editor, as saying, "Our extended forecast is calling for yet another freezing, frigid and frosty winter for twothirds of the country."

Another long-range winter forecast resource, the Climate Prediction Center (CPC) recently issued a winter outlook

for December, January and February. Pat Guinan, University of Missouri Extension State Climatologist breaks down the CPC report. "The latest winter outlook (December, January and February) for Missouri calls for equal chances of above, below and near normal temperature across all of Missouri with the exception of far southern Missouri where there is a slightly enhanced likelihood for above normal temperatures," says Guinan. "There are equal chances for above, below and near normal precipitation for all of the Show-Me State."

Whether or not the Farmers' Almanac prediction will ring true or not, it is always a good idea for farmers to be prepared for weather over the winter months and to create a disaster plan for extremely cold weather.

Eric Bailey, University of Missouri Extension beef nutrition specialist, suggests that farmers prepare their operations by thinking through the fol- heat provides warmth to the lowing questions and addressing each one as needed:

• Do you have enough feed on hand?

• Do you have a plan to get feed to animals if pasture forage is covered in snow?

• If the cattle are confined, do you have a plan to get feed to them even in the event of severe weather?

• Do you have a plan to care for any newborn calves during a winter storm?

Bailey explains that his inclimate weather disaster plan focuses on how to logistically get feed and water to his livestock, making sure his equipment is going to start in extreme cold (an often overlooked challenge) and ensuring hay is stored in an accessible spot.

When it comes to providing shelter for livestock, he offers his advice. "I am of the opinion that cattle do not need shelter through most winter weather, with the major exception of newborn calves," says Bailey. "When cattle consume forages (hay or pasture), the microbes in the rumen produce heat during the breakdown process of that feed, and that cattle."

He recommends keeping plenty of forage in front of your cattle during cold spells and highlights that the biggest concern for farmers during severe weather events will be extremities (ears, tails, scrotums), as they are at risk of frostbite.

Frostbite and hypothermia are also risks to farmers when they are choring during extremely cold weather. The Agricultural Safety and Health eXtension Community of Practice (CoP) is a collaborative effort between universities, industry and government to provide user-friendly information for the general rural population, agricultural producers and agricultural safety and health professionals. The following information and tips regarding frostbite and hypothermia can be found at ag-safety.extension.org.

Hypothermia occurs when a person's body is unable to produce heat and has used all its stored energy or is losing body heat faster than it can be produced. As a result, a person's body temperature decreases. When a person's

CONTINUED ON PAGE 28

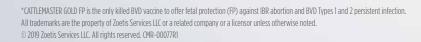




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PREPARING FOR WINTER FROM PAGE 26

body temperature drops below 95 degrees Fahrenheit, the heart, nervous system and other organs can be adversely affected. The most common causes of hypothermia are exposure to cold weather and immersion in cold water.

Early Symptoms

- Shivering
- Decreased energy
- Fatigue
- Loss of coordination

Symptoms after Prolonged Exposure to Cold

- Dilated pupils
- Decreased pulse
- Shallow breathing

• Loss of consciousness

First Aid Response

• Call 911 or emergency medical personnel.

• Find a warm room or shelter and remove any wet clothing.

• Drink a warm (nonalcoholic or caffeine-free) beverage if one is available.

• Stay dry and warm by wrapping up in a blanket.

• If you are assisting a person with hypothermia and he or she does not have a pulse, begin CPR.

Frostbite occurs when skin tissue freezes and loses water, leading to the potential for cell damage. Skin can freeze at temperatures of 30 degrees Fahrenheit and below, and wind chill can also cause frostbite. Fingers, toes, cheeks, nose and ears are the areas of the body most typically affected by frostbite. Frostbitten skin may look white or grayish yellow and may feel cold, hard and possibly waxy to the touch.

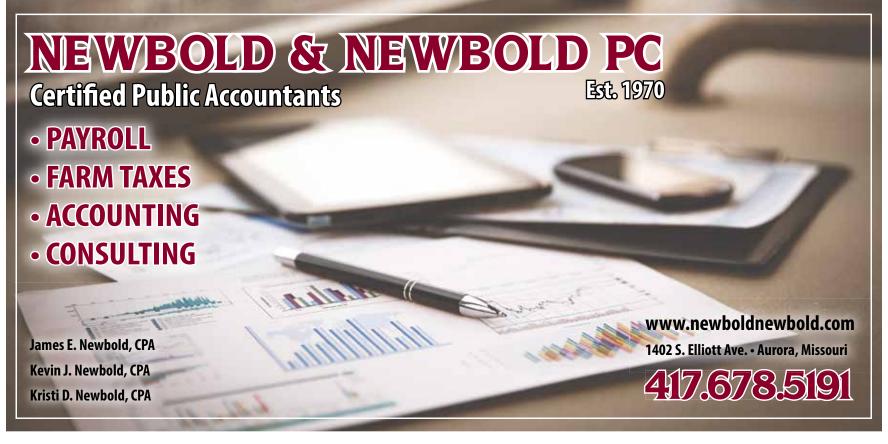
Symptoms

- Numbness
- Aching
- Tingling
- Stinging

First Aid Response

- Find a warm room or shelter.
- Avoid walking if your feet or toes are frostbitten.
- Soak affected areas in warm (not hot) water.
- Avoid rubbing the affected area because rubbing could cause tissue damage.
- Wrap affected area in a soft cloth.
- Do not use a heating pad, fireplace or radiator for warming.
- Do not warm the area if a risk of refreezing exists.

Although we may not completely know what is in store for the four-state region this winter, brushing up on these tips and information can help farmers prepare on the farm.



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ON THE CALENDAR

A Step Above the Rest

Six Show-Me-Select Heifer sales set for fall season

> ix sales of Show-Me-Select heifers from springcalving herds run from Nov. 15 to Dec. 15. The sales extend a Missouri benefit for beef farmers.

The fall auctions offer bred heifers with known development and genetics. They come from farms in the University of Missouri Extension heifer program.

SMS heifer protocols use 22 years of research, says David Patterson, MU beef reproduction specialist. The program continues to improve with new findings.

"Show-Me-Select sales are educational events," the MU specialist says. "Buyers learn data that improve their herds."

Advantages are many. Firstcalf heifers are difficult to manage and suffer high death loss at calving. Pre-breeding exams help farmers cull heifers that can't produce a live calf. With better genetics, heifers improve herds. They replace cows of lower value.

While sales make big news, the real value grows in participating farm herds. Farmers enrolled benefit big. Buyers gain as well. When buying replacements, farmers need not do detailed development work themselves.

Only heifers certified by local MU Extension livestock specialists qualify for sales. Show-Me-Select heifers carry a black-andgold logo ear tag. MU specialists manage sales, which are run by SMS producers.

Fall sales offer bred replacements that will calve next spring. Spring sales sell from a growing number of fall-calving cow herds in Missouri.

Each sale offers a catalog with data on each heifer. That adds value.

Producers guarantee their heifers to be bred. Consignments are pregnancy checked twice by veterinarians. All heifers are checked by graders from the Missouri Department of Agriculture. Any with faults are sent home.

Sale dates, times and locations are:

Nov. 15, 7 p.m., Joplin Regional Stockyards, Carthage;

Nov. 22, 6:30 p.m., Kirksville (Mo.) Livestock Auction;

Nov. 30, 11:30 a.m., Kingsville (Mo.) Livestock Auction;

Dec. 7, 11 a.m., SEMO Livestock Sales, Fruitland;

Dec. 13, 7 p.m., Farmington (Mo.) Livestock Auction; Kendra Graham, Farmington

Dec. 14, 12:30 p.m., F&T Livestock Market, Palmyra; Daniel Mallory, New London

After each sale, MU Extension specialists survey buyers to check satisfaction. Buyers like known expected calving dates. With ultrasound, veterinarians see stage of calf development at pregnancy checks.

Daniel Mallory with the Palmyra sale learned projected calving dates were 98% accurate last year.

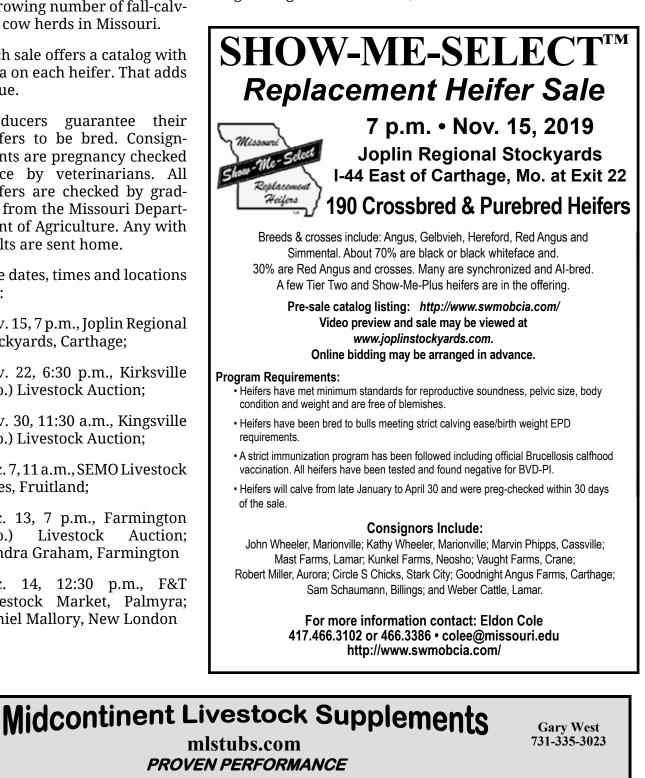
In southwest Missouri, Eldon Cole, sale manager at the Joplin Regional Sale, found buyers liking calving ease. His returns,

so far, show no calving help needed. All calves survived.

Specialists find the calvingease trait often brings early delivery, ahead of predicted date. At sales, they urge buyers to start watching heifers early.

Ahead of sales, buyers can find the latest information each event on the web: AgEBB.missouri.edu/Select/sales/sales. php.

—Source: MU Extension Release.



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hat is the quality of your hay, and will it meet your cattle's nutritional needs this winter?

"Conducting a forage test helps answer these questions. Proper forage-testing protocol is important to get accurate results. Furthermore, understanding forage test results and how to incorporate them into a winter feeding program allows the most benefit out of the results.

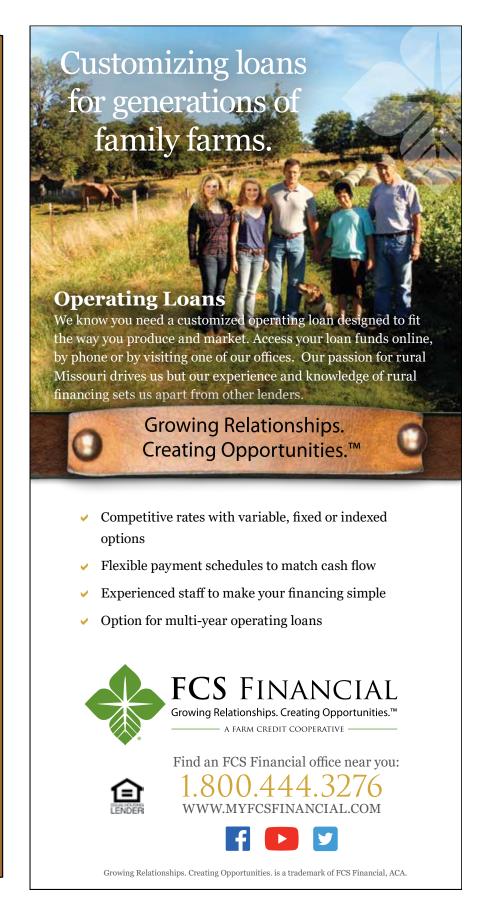
"For proper hay sample collection with large rounds, a bale probe needs to be drilled or pushed into the round side of the bale," says Patrick Davis, a regional livestock specialist with University of Missouri Extension. He urges cattle producers to subsample 10% of their winter-feeding hay resources. After collection, mix these subsamples in a plastic bucket, and then take a sample to send to the forage-testing lab to determine hay quality.

Davis reminds producers that a representative sample is key to accurate hay quality determination. Since hay quality can vary by barn, purchase or baling location, multiple tests of winter-feeding hay resources may be needed for a representative sample and accurate hay quality determination.

"Sample management from collection to testing lab is important for accurate results," says Davis. Wet forage samples should be frozen after collection and kept cool during the transport process to the testing lab for reduced deterioration leading to inaccurate results. Also, send samples early in the week for speedy lab analysis and results. For questions about lab sample transport, contact your preferred foragetesting lab.

"Cows consume pounds of forage dry matter (DM) and not bales of hay," says Davis. As more baleage is produced, a forage test is important to determine the forage DM. Forage DM information is used in proper forage allocation to cattle.

"In addition to forage DM, understanding forage fiber content allows prediction of cattle forage intake and utilization," says Davis. Neutral detergent fiber (NDF) and acid detergent fiber (ADF) are forage test measurements used to predict forage intake and digestibil-**CONTINUED ON NEXT PAGE**



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FORAGE TO THE TEST FROM PREVIOUS PAGE

ity, respectively. Given a cow consumes 1.2% of their body weight in NDF DM daily, forage NDF measurements can be used to predict daily forage DM intake.

Total digestible nutrients (TDN) and crude protein (CP), represent forage energy and protein content, respectively. "These two measurements help to determine if forage resources have enough quality to satisfy a cow's energy and protein needs," says Davis. If deficiencies are found, economical supplement strategies can be developed for optimum cattle performance and profitability. Contact your local MU Extension livestock field specialist for suggestions on supplement strategies of low-quality forages.

"Lots of hay was baled late this year, which may lead to lower than usual hay quality depicted by high NDF and ADF levels as well as low TDN and CP content," says Davis. Hay testing is useful in determining how to get the best hay use. With poorer quality hay potential, identifying and economically supplementing cattle results in optimum cattle performance and profitability. For questions on subjects discussed or for feeding and supplementation strategies, contact your local MU Extension livestock field specialist.

TRENDING NOW

More than a Label

K-State economist takes a look at impact of MCOOL

Kansas State University agricultural economist says a law that once required mandatory reporting of the origin of meat sold in grocery stores likely did not have an impact on consumers' demand for those

Glynn Tonsor has completed an analysis of meat demand before, during and after the U.S. Department of Agriculture had implemented mandatory country of origin labeling for meat products.

products.

Known as MCOOL, the law was in place in the United States from 2009 through 2015 and required food labels in grocery stores to include a statement indicating where the animal was raised before it was harvested for a meat product.

Essentially, said Tonsor, "if beef and pork products went through the grocery store, then they had to be labeled. With that (labeling) comes the cost of compliance, which goes into a benefit-cost assessment, and an attempt to quantify the benefit."

They tried to determine the law's impact on the demand for meat, and if the benefitcost ratio was positive. "There's no evidence of a positive demand development following implementation of the law," Tonsor said. "So if you don't have evidence of a benefit, and you do have evidence of a cost, that's not a desirable benefit-cost ratio," which led to the law being repealed in late 2015.

Four years later, Tonsor said there is "no reason to think" that repeal of MCOOL would provide a measurable boost to the demand for meat products. "One of the estimates we have reported looks that way, but there are a lot of things that change. Beef demand or pork demand could be better after MCOOL, and have nothing to do with MCOOL being repealed."

Recent drivers in meat demand are more likely due to consumers' higher preference for protein diets, and the population mix from 10 years ago has changed, Tonsor said.

He and his colleagues have published a paper outlining many factors that have affected meat demand before, during and after MCOOL was in place. The fact sheet is available online at www.agmanager.info, and titled, "Overview of MCOOL Impact on KSU Domestic Beef and Pork Demand Indices."

The fact sheet may be especially valuable as there is some renewed interest in bringing MCOOL back.

—Source: K State release.





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ECONOMIC INDICATORS

Bigger Isn't Always Better

K-State ag economists rank state's farms

A pair of Kansas State University agricultural economists have taken a look at the char-

acteristics that make farms successful in Kansas and have found that bigger doesn't always mean better.

Greg Ibendahl and Terry Griffin reviewed 10 years of data from the Kansas Farm Management Association (KFMA) to develop a ranking of several hundred farms based on economic performance.

KFMA is a program offered through K-State's department of agricultural economics that provides production and financial management information to farm families in the state.

"Based on the farm sizes that we have in our KFMA database, there really is no advantage to being a bigger farm," Ibendahl said. "I expected the bigger farms to be more efficient because they have the ability to buy inputs at lower prices and because they may have better marketing opportunities."

Ibendahl noted that the K-State analysis has not yet looked at all potential factors of profitability, "but the surprising thing I've seen so far is that once you get to a certain size, there may not be an advantage to getting any bigger than that."

He added that the farms in the KFMA database are mostly between 1,000 and 4,000 acres.

"The higher your debt level was, the lower you tended to rank," Ibendahl said. "To me, when you relate that back to farm size, I don't think farmers should be looking at the



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e that back to n't think farmlooking at the costs and the allocation of acres to given crops.

The takeaway here is that it's a good, quick benchmarking for growers to see how they compare, and hopefully they will realize that they are not different from average and above-average farms."

fact that they need to expand

aggressively. Because if you're

already at a certain size, just

getting bigger is not going to

help you, but adding more

debt is going to be more det-

rimental to your net farm in-

I think it's more important

to keep your debt in check.

We're seeing this even with

interest rates kind of low. If

there was a situation where

we had higher interest rates,

I think that debt thing would

stick out even more than what

Griffin said the analysis con-

sidered the influence of five

come.

it does."

The full analysis as well as other fact sheets related to characteristics of successful farms is available from K-State online at www.agmanager.info. Griffin said some of the information they've been providing dates back several months.

"There is a lot of stress right now, and stress is caused by low commodity prices," Griffin said. "The weather in 2019 is not what anyone anticipated, and so there are lots of different stresses out there. One of the things that I'm trying to get across to producers that I'm talking with is that this study allows you to compare yourself to the majority. A lot of farms were putting more pressure on themselves than they needed to; they thought they were being outliers or their ratios weren't where they should be. This allows them to get a clearer sense of where they stand."

If you were consistently a good farmer and ranking in the top 5 or 10% of the rankings every year, that probably says you are doing something

CONTINUED ON NEXT PAGE



BIGGER ISN'T ALWAYS FROM PREVIOUS PAGE

better than your competing farmers, and the same thing on the low end."

In another surprise finding, the economists noted that farmers who had higher investments in machinery were ranked as more profitable farms in the long haul.

"Normally you would think extra machinery would be a drag on profitability, but it's really not," Ibendahl said. "I think farmers are using machinery as a cash flow tool, so that when they do have good years, they tend to take those extra profits and invest in more machinery as a way to hold down their taxes."

Griffin added: "If we dig into it, we probably would find out that farms that had more invested in machinery might be more efficient, might be able to plant and harvest more timely. But we have not tested the hypothesis of whether more profitable farmers are investing more in machinery, or did the investment in machinery lead to more profitability."

—Source: K-State release. 🌱

MANAGEMENT MATTERS More Bang from the Bull

Bull management in multi-sire pastures

By Glenn Selk

Before the fall breeding season begins, a few simple management procedures involving the bulls can increase the likelihood of a high pregnancy percentage among the cows.

In multi-sire breeding pastures, make certain the bulls that will be pastured together have been in a common trap or pasture prior to the breeding season. Bulls will establish a social hierarchy. They will fight to find out who is king of the mountain. It is better to get this done before the breeding season begins rather than wait until they are first placed with the cows.

Put young bulls with young bulls and mature bulls with mature bulls. Mixing the ages will result in the mature bull dominating the younger bull completely, and in some instances, causing a serious injury. If the plan is to rotate bulls during the breeding season, then use the mature bulls first and follow with the yearling bulls in the last third of the breeding season. In this way, the young bulls will have fewer cows to breed and will be one to two months older when they start breeding.

Breeding soundness exams will be a cost-effective way to help weed out those bulls that might be dominant in the bull pasture, but due to poor semen quality, could cause a lowered pregnancy rate or elongated calving season next fall. Visit with your local large animal veterinarian about testing the bulls soon so that if replacements are necessary, enough time and opportunity is available before the fall breeding season begins. If the bulls need to have the feet trimmed, now is the time to have that completed so that the feet will not be sore during the first week of the breeding season.

Also, be certain to ask your veterinarian about the need to test the bulls for the reproductive disease, trichomoniasis. Bulls to be sold at production sales must meet certain testing guidelines before moving to new owners and across state lines. Information about the testing requirements in Oklahoma can be found at the Oklahoma Department of Agriculture, Food, and Forestry website at http://www.oda. state.ok.us/ais/bovinetrich. htm.

—Source: Glenn Selk is an Oklahoma State University Emeritus Extension animal scientist.

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NOVEMBER 2019 33

Winter-Ready Preparing your spring-calving cows for the season

By Lisa Henderson for Cattlemen's News

ith winter rapidly approaching, veterinarians suggest you take time to review your animal health program. Cow-calf operators should have checked for fall pregnancy and culled any open cows or moved them to a fall-calving herd.

"Now it is time to prepare for the impending winter season," says Rebecca Price, veterinarian at the Animal Clinic of Monett, Missouri. "Ideally, this means watching the body condition score of heifers and cows separately. You can then supplement these two different groups more efficiently, effectively and economically."

Will Gentry, veterinarian at the Veterinary Clinic in Diamond, Missouri, agrees body condition is the first consideration for cows going into winter.

"For some producers, this seems like a no-brainer, but it's kind of cool when you stop to think about what all this is actually doing for you. Simple things like hair coat quality and a good layer of fat are directly related to nutrition, and both are great sources of insulation," Gentry says.

"While considering body condition, also consider increasing your feed delivery. Staying warm is an increased energy demand and therefore demands more energy, but in the winter cattle world, you can use that to your advantage," he says. "Increased feed delivery equals increased fermentation in the rumen. For producers who feed silage, you know the byproduct of fermentation is heat. Increasing the amount of feed you're delivering to your cattle will literally make them warmer."

Gentry says the concept can be taken a step further if you are willing to break away from your routine.

"We get used to feeding cattle the same amount at the same time every day," he says. "We are all creatures of habit, but consider increasing the amount that you're feeding about 12-24 hours before they are calling for a record low temp. By adjusting your routine, you will literally be keeping your cattle warmer from the inside."

Gentry says not to be afraid to treat thinner or poor-health cattle differently. "Lice love winter and are easily transmitted when everyone is shoulder to shoulder around a hay ring," Gentry says. "This is simply another parasite demanding more energy from individuals who could be using that energy to keep warm. Patchy-haired calves not only look less desirable, they are using energy to scratch constantly, and that hairless patch is that much less hair to help insulate."

Price believes lice control is a must, and "most pour on products are labeled for control of lice. Skipping this results in partitioning of nutrients away from the cow and growing fe-



TIP: To keep cattle warmer, increase the amount you feed cattle 12 to 24 hours before a forecasted record-low temperature.

—Will Gentry, D.V.M.

"If you have the pen space, separate these girls," he says. "Don't make them compete with their bossy compadrès. Increase their feed delivery, and make sure they are not having to fight for bunk space or time at the bunk."

One of the first animal health strategies these veterinarians recommend is to deworm your cows.

"Especially before turning those cows out to winter pasture," Price says. "It allows reduction of egg contamination in the pasture. Consider it an investment in your unborn calves. By lowering the worm burden in your cows and thus your 'clean' pasture, you are reducing the load those future calves will have when they begin grazing."

Both veterinarians recommend treating for lice, too.

tus. Weight loss and cold stress are possible effects, but even immunity takes a hit."

If you are concerned about lice control affecting the unborn fetus, Prices says to simply read the product's label.

"If dosed accordingly, most products on the market are safe for use in pregnant animals," she says. "I will caution about trying to save a few dollars on generic products. One definitely gets what he/she pays for. And if an extra \$30 is worth the possibility of preventing repeat treatments or even parasite resistance, then go for it."

Fall is also a great time to vaccinate your herd, the veterinarians say.

"We are finally out of the summer heat so we can get these herds worked much safer," Gentry says. "Specific vaccine recommendations depend on specific herd risks."

Price says that in a mature cow herd, "vaccinations should revolve around potential risk of pathogen exposure and fetal protection. If you maintain a closed cow herd, with no fence line contact with other herds and no breeding animals entering the herd, then a vaccine that covers Leptospira and Campylobacter is all that you may need."

However, she says, if you "rent bulls or expand your herd by purchasing replacements, then you need more components to your vaccine program. Those include, but are not limited to, BVDV types 1 and 2, and IBR."

Price also recommends a scours vaccine if you typically have problems in the spring. She says the key to most scours vaccines is to vaccinate roughly 4-6 weeks prior to calving to ensure maximum colostrum concentration.

Regarding BRD and BVD, Gentry offers the advice he says he heard often in veterinary school: "An ounce of prevention is worth a pound of cure."

Vaccines, he says, are "the most economical step to address these diseases."

Price says you may also want to consider quarantine and detection protocols help prevent the entry of BRD and BVD into your herd.

"A 30-day segregation of newly purchased animals away from the herd – including more than a fence-line separation – will allow for any animals actively infected and/or shedding IBR to clear before residing with the herd," she says. "In addition to quarantining, ear notch testing for BVDV will eliminate any persistently infected (PI) animals."

As for weaning vaccinations, Price says, "Since we can only control our own cattle and not the neighbors, vaccinations against IBR, PI_3 and BVDV should be implemented around weaning. I strongly recommend a vaccine that includes a bacterin containing Mannheimia or Histophilus. Then in four weeks, boostering those calves with a vaccine containing the other bacterin.





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Keys to Winterizing Farm Equipment Find the value in winterizing

By Kelsey Harmon for Cattlemen's News

approaching, and much needs to be done on the farm before it gets here. Jed Heilig, service manager at S&H Farm Supply weighs in on the value of properly winterizing farm equipment.

According to Heilig, winterizing equipment is part of owning equipment. "This is an investment you've made for your farm to help you do the job at hand," says Heilig. "It's an investment that costs a lot of money and taking care of it and winterizing it will help your bottom line in the long run."

In fact, Heilig sees firsthand the delay in productivity for farmers that have not winter-

inter is quickly ized equipment come spring. "Every year, customers call me at the first sign of dry weather, and they are wanting to get in the fields for that first cutting of hay," says Heilig. "They hook onto their hay cutter or baler, and they have a bearing out, or they have known that the clutch on their tractor has been getting weak all winter but didn't address it during the winter."

> Heilig lists a few common consequences he sees when farmers do not winterize equipment. He says tractors will have starting issues from low or dead batteries and running issues from not having the fuel filters changed or bad fuel. Balers will have chains and



Jed Heilig, service manager, S&H Farm Supply, says winterizing your farm equipment can help extend its life as well as help reduce break downs and down time. —Submitted photo.

bearings damaged from not maintain, service or winterbeing lubed and water rusting them.

The main advantage of properly winterizing farm equipment is extending the life of the equipment. "To me, winterizing equipment to me is the same as maintenance," says Heilig. "The better you

ize your equipment the longer it will last." He notes that break downs and down time is something that farmers will not get back and adds the solid, relevant metaphor, time is money.

CONTINUED ON NEXT PAGE



FARM EQUIPMENT FROM PREVIOUS PAGE

Heilig suggests farmers begin the process of winterizing equipment on Oct. 1 as a good rule of thumb. He highlights that usually during this time, most of the hay is already done, and the weather is starting to change. Farmers are starting to get a little relief from the hustle and bustle of summer.

Heilig recommends the following tips for winterizing farm equipment:

For tractors, Heilig says to check the antifreeze and ensure that it is covered for the low winter temperatures in your area. In Southwest Missouri, he says we do not typically see temperatures drop below 0 to -5 degrees. At S&H Farm Supply, they recommend antifreeze coverage at -30 to 40 degrees. Heilig also suggests running a good additive in fuel during the winter months.

If farmers buy fuel in bulk, Heilig suggests having it delivered to their farm because most places already have additives in the fuel. If that is not the case, he recommends using a fuel additive to protect the fuel from jelling. Heilig says that a lot of fuel has some amount of water in it. In the cold temperatures this water gels trying to freeze, but the additive will help prevent this and help to dissipate the water. Heilig also recommends checking tractor batteries. He explains in colder temperatures it takes more amps to start a tractor. He says farmers should check tractor belts and hoses for any cracking. He notes it is also important to protect equipment against rodents since they love chewing on wiring, and this can cause equipment failure and possibly even fire damage.

Heilig advises to store equipment under a roof if at all possible. This will help protect investments against the winter elements and preserves the paint from fading. He says that when farmers begin to get equipment ready in the spring for harvest, they should raise the hoods of tractors daily and to check for bird nests. He cautions that birds will build nests on top of engines overnight, and when tractor engines gets hot it will ignite the nest and cause a fire.

For balers, Heilig suggests cleaning out any loose hay left in the baler. He explains that loose hay draws moisture, which causes rust and in turn can keep your baler from performing like it should. He says that lubing the chains well before parking it for the winter will keep the chains from rusting. Greasing the bearings will keep any moisture from getting into the bearing and causing a bearing failure

Clearing hay and other debris from farm equipment prior to storage should be part of the winterizing process. The practice will help ensure equipment is in proper working order when needed next spring. *—Submitted photo.* when farmers begin to use it the next season.

For sprayers, Heilig suggests draining any spray left and adding some RV antifreeze to it, running the antifreeze throughout the system.

It may be tempting for farmers to buy the cheapest winterizing products, but Heilig advises using quality products, as there is a difference in performance.

5 One last bit of advice that Heilig offers is for farmers to ask questions and to call their local dealer about proper winterization maintenance for farm equipment. "Here at S&H Farm Supply, we say, 'service doesn't cost, it pays'," says Heilig. "It pays because the farmer is productive and can take care of his family, farm and livestock, rather than be broken down because of something that could have been prevented."





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NETWORK KNOW-HOW

AgVocating Every Day

Can't stop. Won't stop.

By Erin Hull for Cattlemen's News

Very month I urge you to open your barn doors and let in the public. I urge you to have farm tours. I urge you to educate. But just this week I realized that advocating for our industry does not have to be a big event. I realized that I advocate every day in simple ways that may seem minimal at the moment, but in the long run may have the largest impact of all.

Every Sunday I go grocery shopping. Sundays are generally when I have the time to go, and I am one of those odd people that actually likes to grocery shop. I live 30 minutes from the nearest "real" grocery store, so when I go, it's usually a several-hour occasion. This means multiple hours of peace and quiet without children. Because we live such a distance from a town of any substance, grocery shopping usually turns into a stop at a big box store, maybe some shoe shopping, grabbing essentials we need, etc.

By the time I'm done, I have usually hit four stores and talked to several strangers. You see, I'm that person who stands in line and looks at the grocery cart behind me and daydreams about what that household is like. I'm judging. My husband and I always joke that everyone judges all the time. What matters is what you do about those judgements.

I'm also the same person who will strike up a conversation, and based on the contents of the grocery cart, ask them what they're making for dinner. This past Sunday, the tables were turned on me, and as I laid out my groceries on the conveyor belt, the person in front of me asked me if I was a vegetarian. This was quite surprising to me. I half laughed and answered. "Nope, why do you ask?" They noticed the lack of meat that I was buying.

I had to laugh at this because I never really thought about it. We raise the majority of meat our family eats. That includes beef, chicken (for the most



part), lamb, and we buy ½ a pig from a family member.

• Side note #1: I hate pigs and will not raise them no matter how much we love bacon. I despise pigs. They're ridiculously smart, which means they're incredibly naughty.

• Side note #2: I am pushing hard for my daughter to show a market pig next year. I may be crazy. I may be thinking of her college savings account. We'll see next year which one is true.

Because we raise all of our own meat, I rarely buy meat from the store. This means that everyone who has stood in front of me in the grocery store and is like me has assumed we are vegetarians.

This is quite comical. My 15-year-old son ate an entire sirloin by himself last week for a snack! We are an animalprotein-heavy household and proud of it. Yet, this one question gave me the opportunity to explain what we do. We raise animal protein. That also gave me two minutes to stand on my soapbox and explain how and why protein animals are raised. Did I hit a big audience? Nope. But I educated one person. That person didn't know these things previously. AgVocating.

My daughter is in a local dairy 4-H club. Because we live in dairy country, we assume that everyone in our rural community understands farming, which is a bad misconception. One of our best fundraisers for the club is to make and sell milkshakes. A local dairy co-op

donates all the ice cream. We recently sold \$680 worth of \$4 milkshakes at a cancer fundraiser high school soccer game. It was 40 degrees and raining, and we were still out there. To the kids, we're there to raise money for the club (or in this instance, for cancer research as we donated all our proceeds to the event). To the adults, it's a much larger picture. We're out there to get our message across to the community. We are part of this community. We love this community. We love our animals. AgVocating.

I drive a Jeep Wrangler. On both sides, I have "BEEF" stickers. These stickers stand for what I love. They stand for my passion. More importantly, they make people ask questions. These questions generally lead to a conversation about beef production, even if only for a minute. AgVocating. Educating doesn't have to be in a formal setting. It can happen in the simplest of ways...a small conversation. Every person you connect with and have a conversation with is helpful to our industry. My community is probably very much like yours: rural with a mixture of whitecollar, blue-collar and ranchers/ farmers. As time marches on, the ranchers and farmers are far outnumbered. But like it or not, we probably stick out. Use that difference to your advantage to strike up a conversation. Use that difference to let a whitecollar resident meet someone who's raising the food they eat. Trust me. They are intrigued, and they have questions.

Use that difference to AgVocate with pride. —Source: Erin Luchsinger Hull is a board member of the New York Beef Council.

MANAGEMENT MATTERS Keeping Tabs

Make good records an important part of farm management

By Bob LeValley

G ood record keeping can be an important asset in management strategies for all phases of cattle production, from the cow/ calf producer to the feedlot. Record-keeping systems may be elaborate and extensive using computer software, or simple, well-organized handwritten notes.

The system is not what is important; keeping them up-todate and accurate is critical for use as a management tool. The Beef Quality Assurance (BQA) program stresses keeping records not only for management purposes, but also as a means to document the proper use and safety of animal health products. The industry must be able to document it has tight control of risk factors such as withdrawal periods for residue avoidance. This also helps to ensure and strengthen consumer confidence in beef safety.

Accurate records are important to validate herd health treatment recommendations. It allows veterinarians to adjust treatment regimens as animals and environmental conditions change. The BQA program suggests the development of a Treatment Protocol Plan specific to your operation. It is simply a written plan developed with your veterinarian, for what treatments are to be used when cattle get sick.

It also specifies a plan to follow and/or alternative treatment if the initial treatment does not produce the desired result. The plan should be reviewed and updated regularly with your veterinarian. Records should be kept on the use of all medicated feeds and minerals. This will help avoid the potential for violative residue, as withdrawal times must be strictly followed.

The BQA program has a good review of suggested record-keeping details. For more information on the BQA program or to become BQA-certified, visit the Beef Quality Assurance website at BQA.org, or contact your OSU Extension office. Producers can become BQA-certified either through the online process or by attending an in-person BQA certification program.

—Source: Oklahoma Cooperative Extension service.



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JOPLIN REGIONAL STOCKYARDS - SURVEY

ATTN: MARK HARMON P O BOX 634

CARTHAGE, MO 64836

SURVEY to BETTER SERVE YOUR NEEDS FROM JRS

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NameFarm/Ranch Name
AddressCity / State / Zip
Home PhoneMobile PhoneEmail Address
Would you be interested in receiving email blasts from JRS on special sales? Yes No
Would you be interested in receiving email blasts from companies with new products and services? Yes No
Are you: Male Female Full-time Farmer Part-time Farmer 20-30 31-40 41-50 51-60 61-70 71+
What best describes your operation?Beef (registered)Beef (commercial cow/calf)Background CalvesBackground YearlingsCombination Cow/Calf & BackgroundDair
Where do you typically get your farm information? Print Radio Websites
What publication?What Website?What Website?
MARKETING
How do you typically market your cattle? (Check all that apply) Livestock Market Video Preconditioned Sale Other (Please explain)
Have you used our commingling services? Yes No Are you interested in (Check all that apply):ComminglingValue Added Sales (Preconditioning)Backgrounding:Risk Management/Video Marketing
CATTLEMEN'S NEWS
Do you enjoy reading Cattlemen's News? YesNoHow would you compare Cattlemen's News to other publications you read?More InterestingLess Interesting
What would you like to see in Cattlemen's News? (Check all that apply)
National Industry NewsLocal Industry NewsMore "How To" ArticlesArticles on Other ProducersOther (please specify)
On a scale of 1-10 (1 being worst, 10 being best), how would you rate Cattlemen's News?Do you like to read the market reports in Cattlemen's News? Yes No
Are the ads in Cattlemen's News helpful in making purchase decisions? Yes NoDo you find the articles in Cattlemen's News interesting to read? Yes No
How would you prefer to receive Cattlemen's News? Conventional MailEmail/Digital
DIGITAL & SOCIAL MEDIA
How often do you visit JRS social media (Facebook Twitter) for markets / events or information?
5+ times/week3-5 times/weekOnce/WeekOnly occasionally
How often do you visit the JRS or Primetime Livestock websites?5+ times/week3-5 times/weekOnce/WeekOnly occasional
Would you be willing to complete a 10-minute survey on the JRS website? Yes No
Why do you visit the JRS website / Primetime Livestock or Facebook or Twitter? (Check all that apply)
Market InformationIndustry News & Weather <i>Cattlemen's News</i> Programs & ServicesAdvertisementsVideos featured on Cattlemen's View
Do you currently view and use apps on your mobile phone?YesNo Do you watch Corbitt Wall's FEEDER FLASH?YesNo
EDUCATION
What are your major education needs in the next 5 years?
Would you be interested in attending a producer/educational meeting in the future?YesNo
If you answered "Yes" above, what topics would you like addressed?
When is the best time for you to attend a producer/educational meeting?WeekdayLate Afternoon/EveningWeekday EveningSaturday
How can our field representatives better serve your needs?

	-		-		-		-			20		-02	JZI				-			-	
Wean da	Thursda	Value-Added Thursda	COMPLETE FRONT AND BACK! INCOMPLETE FORMS WILL BE RETURNED!	Please attach proof of purchase and return documentation and completed form 10 DAYS PRIOR TO SELL DATE to: JRS Value Added Enrollment mailed to, P.O. Box 634, Carthage, MO 64836 or fax to 417-548-2370 – Can be scanned and email to markh@joplinstockyards.com: For more info or questions please call Mark Harmon at 417-316-0101 or office 417- 548-2333. Info is also available on our website: <i>www.joplinstockyards.com</i>	Taos must be nurchased through IRS	Castrated/spayed Dehomed (date)	Other Management Practice Information Please check and date all that apply:	JRS Livestock Auction	Dreeu Check Marketing Choice:		Approximate Marketing Date (mm/dd/yy)_	Weaning Date, if applicable (mm/dd/yy)		Marketing Information	Field Representative	Phone/Cell	AddressCity	Owner/Manager	<u>RANCH/OPERATION INFORMATION</u> Name cattle will be sold under	Vac Sourced /	nroll in J
ite Nov. 18, 2019	Thursday, Jan. 2, 2020	Value-Added Feeder Cattle Sale Thursday, Dec. 5, 2019	! INCOMPLETE FORMS	mentation and completed form 10 DAVS PRIOR TO SELL I 34, Carthage, MO 64836 or fax to 417-548-2370 – Can be scanne 16 or questions please call Mark Harmon at 417-316-0101 or offi Mobilitylockwards.com	or a Complying Program suc	(date) Bunk broke (date) Tank broke	2	uction IRS Video Auction			Tre		Estimated Number of Heifers			Fax	StateZip			Weaned Sourced /	- 🗩
	_	e Sale	WILL BE RETURNED!	DAVS PRIOR TO SELL DATE to: 7-548-2370 – Can be scanned and mon at 417-316-0101 or office 417-	h as MFA Health Track	(broke (date) Guaranteed Open day of Sale		lation					ers							Stocker Vac /	dded Program
Signature of Owner/Manager/Veterinarian		I certify that the calves lis administered according to form is true and accurate	PRODUCTS A	All males are t found or heife given the optic	X indicates		Implant	(Dewormer)	Haemolytica	Mannheimia	Haemophilus (Optional)	Ologi Idialio	Clostridial/Rlackleo	Booster Dose MLV only	1st Round MLV or Killed	Respiratory Virals	Vaccine Protocol	PRODUC	vaccinat	Adminis	Vaccinations s Write date of a
Manager/Veterinarian	ither OWNER/M	e calves listed m according to labe nd accurate.	ADMINISTERED	io be castrated g rs bred, seller wi on to take home l	the vaccine is			Itrol		Mannheimia (Pasteurella)	s Somnus	lachieg	lacklen	e MLV only	з-вкъv LV or Killed	Virals	tocol	PRODUCT ADMINISTERED	ion proto	stration Ir	hould be adminiadministration for
Ranch/Operation Name	Signature of either OWNER/MANAGER or VETERINARIAN is <u>REQUIRED</u>	I certify that the calves listed meet or will meet JRS requirements and products have been or will be administered according to label directions and BQA guidelines. I also certify that the information on this form is true and accurate.	PRODUCTS ADMINISTERED ACCORDING TO BQA GUIDELINES	All males are to be castrated guaranteed steers and all heiters are guaranteed "open". If any bulls are found or heifers bred, seller will be billed for the difference in price loss; sellers of bred heifers will be given the option to take home heifers that are bred.	X indicates the vaccine is required and must be administered.									2nd		1st	List Product & Brand in this column	ERED	vaccination protocol - use name brand vaccines and wormers	Administration Information: JRS recommends a goo	Vaccinations should be administered in the neck area following Beef Quality Assurance guidelines Write date of administration for each product used in appropriate area, month and day.
Date	l is <u>REQUIRED</u>	nents and products es. I also certify th	DELINES YES	n price loss; sellers	administered.	-				×		>	×		×	White Tag	1st Dose Date	JRS Calf Vac Sourced	and vaccine	ecommend	ing Beef Quality As riate area, month a

JRS VALUE-ADDED CALF TAGS



JRS CALF-VAC SOURCED (WHITE TAG)

Calves must be born on producer's farm and given one round of shots within six weeks prior to sale date. These calves can be weaned but must still wear the calf-vac tag.

JRS WEAN-VAC 45 SOURCED (GRAY TAG)



Calves must be born on producer's farm and given two rounds of shots. The second round boosters must be given 2-5 weeks after the first round, modified-live vaccine is required for the booster shot. Cattle must be weaned for a minimum of 45 days.



JRS WEAN-VAC 45 NON-SOURCED (ORANGE TAG)

Calves must be given two rounds of shots with the second round booster given 2-5 weeks after the first round, modified-live vaccine is required for the booster shot. These calves must be weaned a minimum of 45 days. This program is for stocker cattle that are purchased and weaned for a minimum of 45 days.

EVENT ROUNDUP

November

- 12 Farm to Fork Appreciation Night Lost Creek Event Center, Bordertown Casino Wyandotte, Oklahoma FMI: 417-451-1925
- 13 Special Replacement Cow & Bull Highlight Sale Joplin Regional Stockyards, Carthage, Missouri FMI: 417-548-2333
- 15 Show-Me-Select Replacement Heifer Sale Joplin Regional Stockyards, Carthage, Missouri FMI: 417-466-3102
- 18 Green Springs Bull Test Sale Three Cedars Sale Facility, Nevada, Missouri FMI: 417-448-7416
- 18 6:15-8:30 pm. Free Farm Tax Workshop MU Extension Center, Bolivar, Missouri FMI: 417-326-4916
- 18 6:15-8:30 pm. Free Farm Tax Workshop MU Extension Center, Hermitage, Missouri FMI: 417-646-2419
- 18 6:15-8:30 pm. Free Farm Tax Workshop MU Extension Center, Marshfield, Missouri FMI: 417-859-2044

Administration I	Administration Information: JRS recommends a good	ecommends	a good
vaccination prote	vaccination protocol - use name brand vaccines and wormers	und vaccines	and worme
PRODUCT ADMINISTERED	TERED	JRS Vac 45 Weaned Source	eaned Source
Vaccine Protocol	List Product & Brand in this column	1st Dose Date	Booster Date
Respiratory Virals IBR-BVD-P13-BRSV	1st	Gray X	Tag
Booster Dose MLV only	2nd		×
Clostridial/Blackleg		×	×
Haemophilus Somnus (Optional)			
Mannheimia (Pasteurella) Haemolytica		×	
Parasite Control (Dewormer)		x	
Implant			

All males are to be castrated guaranteed steers and all heifers are guaranteed "open". If any bulls are found or heifers bred, seller will be billed for the difference in price loss; sellers of bred heifers will be given the option to take home heifers that are bred.

PRODUCTS ADMINISTERED ACCORDING TO BQA GUIDELINES

YES

I certify that the calves listed meet or will meet JRS requirements and products have been or will be administered according to label directions and BQA guidelines. I also certify that the information on this form is true and accurate.

Signature of either OWNER/MANAGER or VETERINARIAN is REQUIRED

ner/Manager/Veterinarian Ranch/Operation Name

Date

9

42 NOVEMBER 2019

EVENT ROUNDUP

November

- Wean Date for Jan. 2, Value-Added Feeder Sale 18 FMI: 417-548-2333
- 19 Warm Season Grass Cattle Grazing Workshop Bates Co. NRCS/SWCD Office, Butler, Missouri FMI: 660-679-6124, ext. 3
- 21 Prime Time Livestock Video Sale Downstream Casino, Ouapaw, Oklahoma FMI: JRS office 417-548-2333 or Colby Flatt, video manager, 620-870-9100
- 23 Hill 'N' Dale Ranch Land Auction The River Centre at The Landing, Van Buren, Missouri FMI: Younger Auction Company, 660-541-1977
- Paul Morris Real Estate & Personal Property Auction 23 3542 Lawrence 2200, Pierce City, Missouri FMI: Essick Auction Service, 417-883-SOLD
- Sydenstricker Genetics Angus Production Sale 23 at the farm, Mexico, Missouri FMI: 573-581-1225
- Yearling Highlight Sale 25 Joplin Regional Stockyards, Carthage, Missouri FMI: 417-548-2333

November

- 25 Winter Cattle Feeding & Health Management Workshop Three Cedar Event Center, Nevada, Missuri FMI: 417-276-3313
- 30 College of the Ozarks Production Sale Point Lookout, Missouri FMI: 417-342-0871

December

- 5 Value-Added Feeder Cattle Sale Joplin Regional Stockyards, Carthage, Missouri FMI: 417-548-2333
- 5 Prime Time Livestock Video Sale Joplin Regional Stockyards, Carthage, Missouri FMI: JRS office 417-548-2333 or Colby Flatt, video manager, 620-870-910
- Southwest Missouri Cattlemen Foundation Auction 7 Kings Way Christian Church, Mt. Vernon, Missouri FMI: swmocattlemens@gmail.com
- Replacement Cow & Bull Highlight Sale 11 Joplin Regional Stockyards, Carthage, Missouri FMI: 417-548-2333

January

- Value-Added Feeder Cattle Sale 2 Joplin Regional Stockyards, Carthage, Missouri FMI: 417-548-2333
- 10-12 Missouri Cattlemen's Association Convention Holiday Inn Executive Center, Columbia, Missouri FMI: 573-499-9162

		dministered.	X indicates the vaccine is required and must be administered.	X indicates the vaccine i
				Implant
		×		Parasite Control (Dewormer)
		x		Mannheimia (Pasteurella) Haemolytica
				Haemophilus Somnus (Optional)
	x	x		Clostridial/Blackleg
	×		2nd	Booster Dose MLV only
	Tag	Orange X	1st	Respiratory Virals IBR-BVD-P13-BRSV 1st Round MLV or Killed
	Booster Date	1st Dose Date	List Product & Brand in this column	Vaccine Protocol
	/ac	JRS Stocker Vac	ERED	PRODUCT ADMINISTERED
ers	a good and worme	commends nd vaccines	Administration Information: JRS recommends a good vaccination protocol - use name brand vaccines and wormers	Administration In vaccination proto
	rance guidelines. day.	g Beef Quality Assu ate area, month and	Vaccinations should be administered in the neck area following Beef Quality Assurance guidelines Write date of administration for each product used in appropriate area, month and day.	Vaccinations should be admini Write date of administration for

All males are to be castrated guaranteed steers and all heifers are guaranteed "open" found or heifers bred, seller will be billed for the difference in price loss; sellers of bred given the option to take home heifers that are bred. heifers will be . If any bulls are

PRODUCTS ADMINISTERED ACCORDING TO BQA GUIDELINES YES

administered according to label directions and BQA guidelines. I also certify that the form is true and accurate. certify that the calves listed meet or will meet JRS requirements and products have information on this been or will be

Signature of either OWNERMANAGER or VETERINARIAN is REQUIRED

ure of Owner/Manager/Veterinarian Ranch/Operation Name

Date

www.joplinstockyards.com

MARKET WATCH

Joplin Regional Stockyards

Complete Feeder Cattle Market Summary online at www.joplinstockyards.com.

Market Recap | Prime Time Livestock Video Sale Oct. 10, 2019 • Receipts 8,670

Demand moderate to good for this Prime Time Video Auction at the Joplin Regional Stockyards. The cattle offered are in Missouri, Arkansas, Kansas, Oklahoma, and Texas. An eight to ten cent slide and two to three percent pencil shrink will apply. Deliveries are current through February, 2020. Current deliveries are cattle that will deliver up to 14 days from the video sale date. Current delivery is through October 24, 2019. Supply included 75 percent steers, 25 percent heifers, with 99 percent over 600 lbs.

Southcentral States: Texas, Oklahoma, New Mexico

Feeder Steers: Medium and Large 1

Head	Wt Range	Avg Wt	Price Range	Avg Price	Delivery
650	860	860	141.00	141.00	Current
64	775	775	145.00	145.00	Oct-Nov
63	800	800	142.25	142.25	Oct-Nov
420	850-875	861	140.90-143.25	142.06	Oct-Nov
65	785	785	144.00	144.00	Nov
436	800-825	811	140.00-142.00	140.87	Nov
1077	850	850	137.25-140.60	139.87	Nov
785	900	900	140.10	140.10	Nov
72	725	725	145.25	145.25	Nov-Dec
240	825	825	141.75	141.75	Nov-Dec
749	850-860	857	138.25-141.35	139.96	Nov-Dec
460	900	900	139.50-140.00	139.57	Nov-Dec
60	800	800	139.85	139.85	Dec
60	850	850	140.00	140.00	Dec
205	925	925	139.10	139.10	Dec
250	810	810	142.25	142.25	Jan
65	775	775	141.00	141.00	Jan-Feb



JRS Sale Day Market Phone: (417) 548-2012 Mondays (Rick Huffman) | Wednesdays (Don Kleiboeker) Market Information Provided By Tony Hancock Mo. Department of Agriculture Market News Service Market News Hotline (573) 522-9244 Sale Day Market Reporter (417) 548-2012

Feeder Heifers: Medium and Large 1

Head	Wt Range	Avg Wt	Price Range	Avg Price	Delivery
128	785	785	134.25-138.75	136.50	Current
62	860	860	131.00	131.00	Current
64	675	675	138.25	138.25	Oct-Nov
66	725	725	135.50	135.50	Oct-Nov
455	750	750	135.25-135.85	135.56	Oct-Nov
130	800	800	132.00	132.00	Oct-Nov
350	750	750	133.00	133.00	Nov
130	800	800	132.00	132.00	Nov
80	650	650	140.75	140.75	Nov-Dec
63	800	800	132.75	132.75	Nov-Dec
140	725	725	134.75-136.75	135.75	Dec
400	750	750	132.60	132.60	Dec

Eastern States: All states east of the Mississippi, Louisiana and Arkansas

Feeder Steers: Medium and Large 1

Head	Wt Range	Avg Wt	Price Range	Avg Price	Delivery
95	525	525	158.00	158.00	Oct-Nov
206	750	750	146.75-149.25	147.60	Oct-Nov
260	775	775	143.75	143.75	Nov
126	800	800	137.00	137.00	Jan

Feeder Heifers: Medium and Large 1

Head	Wt Range	Avg Wt	Price Range	Avg Price	Delivery
68	700	700	140.00	140.00	Nov
70	725	725	133.75	133.75	Jan

—Source: USDA-MO Dept of Ag Market News Service Lonnie Peetz, Market Reporter, 573-751-5618. 24 Hour Market Report 1-573-522-9244. www.ams.usda.gov/mnreports/JC_LS770.txt.

Feeder Steers: Medium and Large 1-2

Head	Wt Range	Avg Wt	Price Range	Avg Price	Delivery	
56	900	900	135.25	135.25	Nov	

Risk Management | Video Marketing

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MANAGE YOUR RISK. Selling your cattle shouldn't be a risky venture. We're here to help with our **innovative marketing** strategies. **UPCOMING SALES**

NOV. 21, 2019 "THE FALL FRENZY"

AT DOWNSTREAM CASINO, QUAPAW, OKLAHOMA CONTRACTS & VIDEOS DUE NOV. 14

> **DEC. 5, 2019** AT JOPLIN REGIONAL STOCKYARDS CONTRACTS & VIDEOS DUE NOV. 27

DVAUCTION.COM | primetimelivestock.com



Colby Flatt Video Mgr. 620.870.9100 Skyler Moore 417.737.2615 Bailey Moore 417.540.4343 Jackie Moore 417.825.0948

44 NOVEMBER 2019

MARKET WATCH

Market Recap | Feeder Cattle Auction Oct. 28, 2019 • Receipts 6,108

Compared to last week, steer and heifer calves steady to 4.00 lower, yearlings steady to 2.00 lower. Demand and supply moderate. The recent USDA Cattle On Feed report showed 99 percent On Feed, 102 percent Replacements, 101 Marketed. Supply included: 100% Feeder Cattle (49% Steers, 43% Heifers, 8% Bulls). Feeder cattle supply over 600 lbs was 53%.

Feeder Steers: Medium and Large 1 350-400 lbs 160.00; 400-500 lbs 147.00-170.00; 500-600 lbs 147.00-161.00; 600-700 lbs 139.00-156.00; 700-800 lbs 140.00-157.00; load 1013 lbs 131.25. **Medium and Large 1-2** 400-500 lbs 144.00-155.00; 500-600 lbs 137.00-147.50; 600-700 lbs 131.00-145.00; 700-800 lbs 137.00-148.00; 800-900 lbs 133.50-144.00.

Feeder Heifers: Medium and Large 1 300-350 lbs 136.00-150.00; 400-500 lbs 130.00-142.00; 500-600 lbs 126.00-137.00; 600-700 lbs 130.00-146.00; 700-800 lbs 129.00-134.00. **Medium and Large 1-2** 300-400 lbs 130.00-140.00; 400-500 lbs 120.00-127.00; 500-600 lbs 120.00-131.00; 600-700 lbs 122.00-138.00; 700-800 lbs 123.00-133.00.

Feeder Bulls: Medium and Large 1 400-500 lbs 145.00-157.00; 500-600 lbs 127.50-142.00. **Medium and Large 1-2** 350-400 lbs 137.50-147.50; 400-500 lbs 135.00-147.50; 500-600 lbs 110.00-135.00.

—Source: Missouri Dept of Ag-USDA Market News Service, Joplin, MO. Rick Huffman, Market Reporter, 573-751-5618. 24 Hour Market line number 1-573-522-9244.

Tune in to the JRS Market Report

Station	Frequency	Day	Time
ккоw	860 AM	M/W	12:50 p.m. & 4:45 p.m.
KRMO	990 AM	M-F	9:55-10:05 a.m.
KRMO	990 AM	M/W/F	Noon Hour
KRMO	990 AM	T/Th	Noon Hour
Outlaw	106.5 FM	M/W	11:45 a.m.
The Z	102.9 FM	M/W	12:40 p.m.
KTTS	94.7 FM	M/W	11:30 a.m. & 12:30 p.m.
KGGF	690 AM	M/W	11:30 a.m. & 12:30 p.m
KWOZ	103.3 FM	M/W	11:30 a.m.
KHOZ	900 AM	M/W	12:15 p.m.



Stay up-to-date on everything at JRS

Special Listing to Sell

2 P.M. | WEDNESDAY | NOV. 13, 2019 DURING OUR REGULAR COW & BULL SALE JOPLIN REGIONAL STOCKYARDS

I-44 & EXIT 22 | CARTHAGE, MISSOURI

Complete Dispersal

Mostly black Limousin Cows - Home-raised 14, 3-5 years old. Fall calvers bred to Limousin bulls. 7, 6-9 years old. Fall calvers bred to Limousin bulls. 1, 3-year-old Limousin bull. For more details, contact Kenny O'Hara. Phone: 417-439-0219.

<u> 100 Cows — 75% Wagyu, 25% Angus</u>

Cows are 24 years old and will start calving in January. Bred to full-blood Wagyu black bulls. All are home-raised cows. Started with reg. Angus herd bred to Gardiner bulls. Then, heifers were kept as replacements. They were true F1's bred back Wagyu. All cows selling are true F2's. Very docile when handling. All cows are broke to cake and feed, and they can be easily moved from pasture to pasture and at processing. All cattle on a strict vaccination program.

For more details, contact James Kennedy at 337-274-7406.

45 Black Cows

7 years old and short and solid mouth. Start calving March 1. Bred to SimAngus bulls. Field Rep: Jason Pendleton. Phone: 417-437-4552.

Complete Dispersal: 90 Black Cows

Running ages. Bred to black Angus bulls. Bred in second and third period. For more information, contact Fred Gates at 417-437-5055 or David Stump at 417-434-5420.

25 Black Cows

Running ages. Bred in second and third stages to black Angus bulls. Field Rep: Fred Gates. Phone 417-437-5055.

<u>Beau's Black Angus</u>

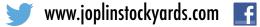
Selling a registered Angus bull and heifer with proceeds to benefit the Cash Moore Foundation. Angus Heifer - AAA#19496043 BB's Lassie W875 — Born 10/14/2018. Great way for a young person to start a cow herd! Angus Bull - AAA#19366288 BB's Tour of Duty 814 — Born 2/22/2018 Sired by R B Tour of Duty 177. Field Rep: Jim Hacker. Phone: 417-328-8905.

35 Red Angus Cows

3-5 years old. Bred 4-6 months to Red Angus or Herford bulls. For more information: Nikki Simmons. Phone: 479-220-8562.

8 Red Angus Heifers & 3 Red Angus Bulls

6—Springers or with calves at side. All Al bred. 2—Due to calve in February. 3—Red Angus bulls. 18-20 months old. All high-bred out of a closed reg. Red Angus herd. Only selling because don't have enough land. Field Rep: Nick Flannigan. Phone: 417-316-0048.





Jackie Moore

417.825.0948

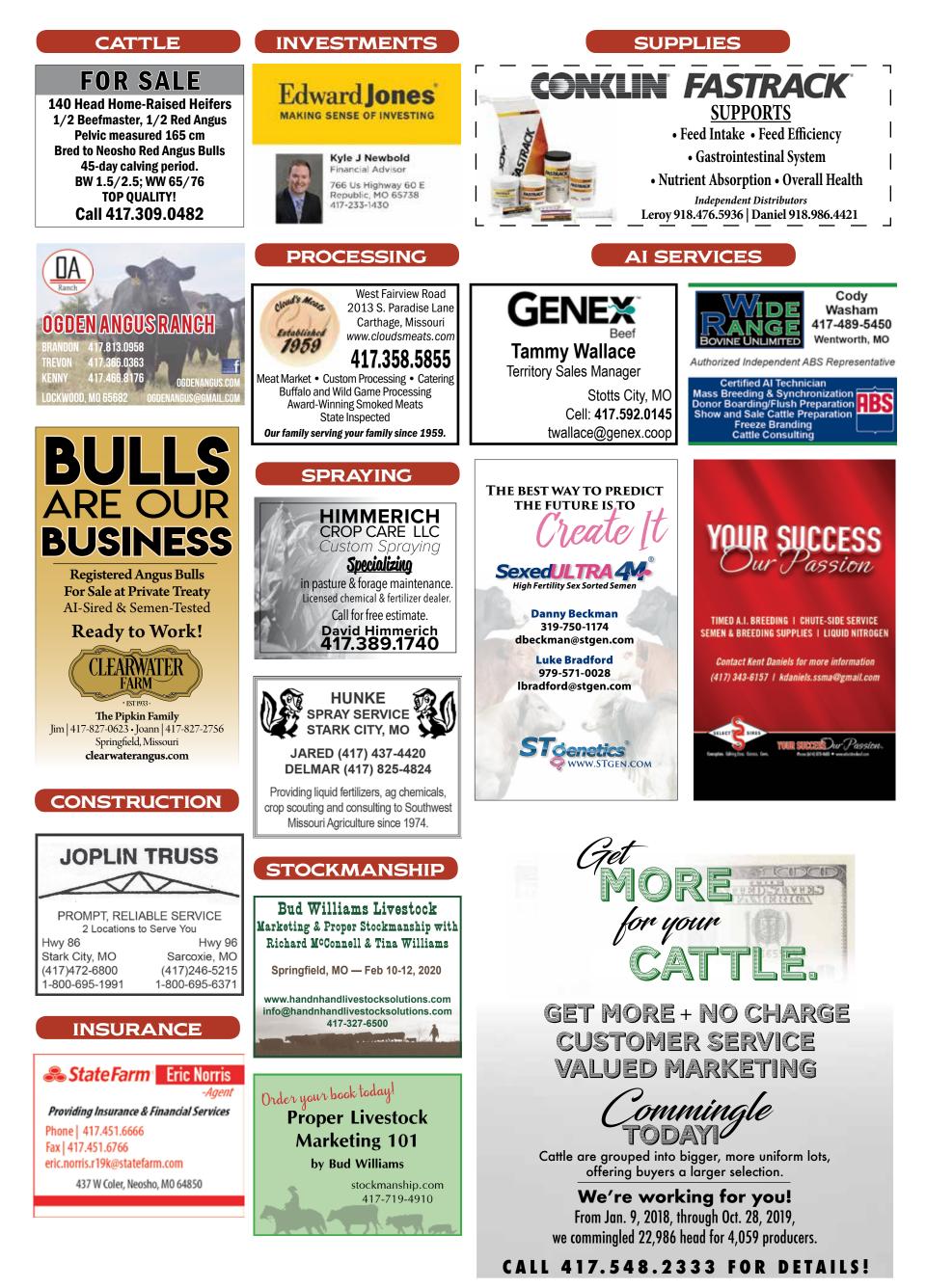
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