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# VIEW FROM THE BLOCK

Cattle marketing seems to be a struggle simply because we can't get anything for fat cattle. And, we've got to get that price up there before we can ever get anybody excited to bid higher for feeders.

The World Health Organization announcement that processed and red meat causes cancer really weighed on futures prices late in October. The October cold storage report also showed 31 percent more red meat in storage than a year ago. I suppose we're pretty lucky cattle are bringing the prices they are given all the negative news that's circulating.

Preconditioned calves still have some value in the market. This time of year the health on calves is just so-so, making those that are preconditioned worth around \$50-\$100 per head more.

The cow market is taking on some seasonal trends right

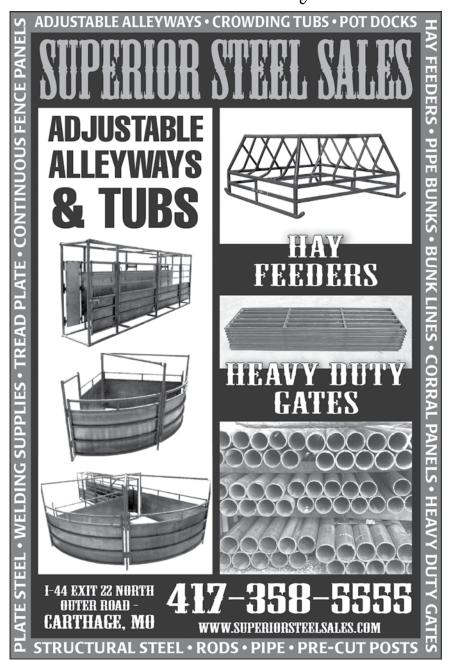
now, losing \$20-\$30/cwt from previous levels.
Replacement cow trade will remain

trade will remain good, though, if we can get some rain as demand exists for good, young females.

I expect prices to stay in their current range for the next couple of years. We're back to the scenario now where we need to get our ducks in order. Keep our best cows, our best calves. If you're a backgrounder, you're going to have to get your pencil out. Don't just buy calves and hope they make money. Put the pencil to it. We're in a different environment than we were two years ago when we could make money without having to try really hard. There are still going to be chances to make money, but you will have to pay more attention to business.

Good luck and God bless.

Jackie





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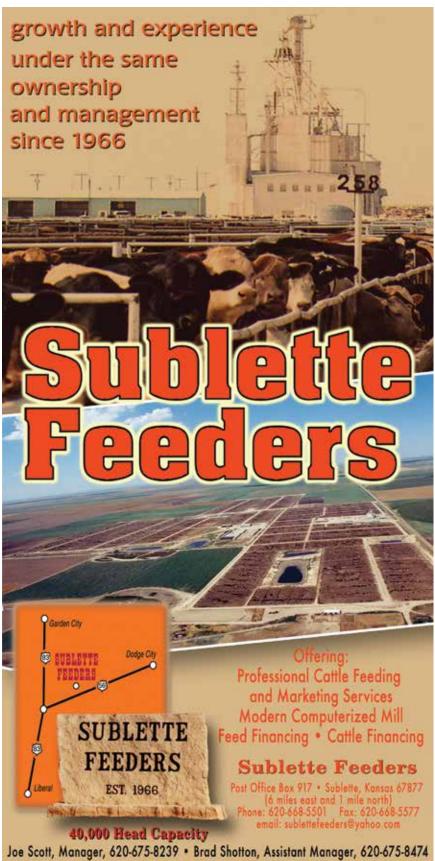
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Fall breeding season is upon us. Find out how to manage genetics in multi-sire pastures on page 20.

—Cover design by Joann Pipkin

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# **BEEF IN BRIEF**

# **Public Hearing Scheduled for Missouri Beef Checkoff**

The Missouri director of agriculture has received a petition from the Missouri Beef Industry Council board of directors to conduct a referendum of Missouri cattle producers, pursuant to section 275.352 RSMo as amended, to establish a \$1 per head state beef checkoff assessment.

A public hearing on the referendum will be held on Dec. 9, 2015, at 10 a.m. at the Missouri Electric Cooperatives building on the Missouri State Fairgrounds, in Sedalia, Missouri. At the hearing, all interested persons will have the opportunity to voice their opinions regarding the referendum to establish a \$1 per head state beef checkoff assessment. After the hearing, the director of agriculture may approve the petition to conduct a referendum.

If the director determines that a referendum should be held, cattle producers will be required to register to vote. If the referendum is held, registration of producers is scheduled to begin on Jan. 4, 2016, and close on March 4, 2016. Registration will be available online at http://agriculture.mo.gov/councils/ or at county Farm Service Agency (FSA) offices.

If the referendum is held, the Missouri Department of Agriculture will mail ballots to registered producers on April 4, 2016. For more information, contact the Missouri Department of Agriculture, 1616 Missouri Boulevard, Jefferson City, MO 65109 or 573-751-4211.

—Source: Missouri Cattlemen's Association Prime Cuts

# U.S. Meat Exports Disappointing in August

U.S. beef struggled in August, remaining below year-ago levels, according to data released by USDA and compiled by the U.S. Meat Export Federation (USMEF), contractor to the beef checkoff. August beef exports totaled 185.5 million pounds, down 18 percent from a year ago. Beef export value was down 24 percent to \$498 million, the lowest in 18 months. For the first eight months of 2015, exports were down 11 percent in volume to 1.55 billion pounds and dropped 5 percent in value to \$4.31 billion.

Beef export value per head of fed slaughter has averaged \$286.51 this year, up \$9.28 from the same period in 2014. Exports accounted for 13 percent of total production and 10 percent for muscle cuts, each down about one percentage point from the same period last year.

—Source: MyBeefCheckoff.com

# Missouri Cattle Industry Convention Registration Open

The Missouri Cattle Industry Convention and Trade Show will be held Jan. 8-10, 2016, at the Tan-Tar-A Resort located in Osage Beach, Missouri. The convention is the largest event of its kind in the state, according to Missouri Cattlemen's Association (MCA) President Janet Akers.

"The event is jam-packed with networking and educational opportunities, and features the largest trade show in the state exclusively for individuals involved in Missouri's beef cattle business," said Akers. "This is also the time that MCA members chart the course for their association. Our grassroots policy process will be on full display."

Preregistration deadline is Dec. 11. Registration material can be found online at www.mocattle.org. Akers encourages anyone interested in Missouri's beef cattle industry to attend the annual event.

"Anyone who is directly or indirectly involved in the beef cattle industry is encouraged to attend," said Akers. "This event is for the entire family, and we know the next generation of farmers and ranchers will be well represented."

—Source: MCA Prime Cuts

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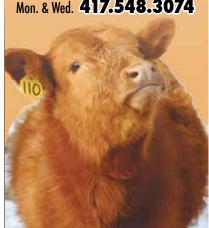
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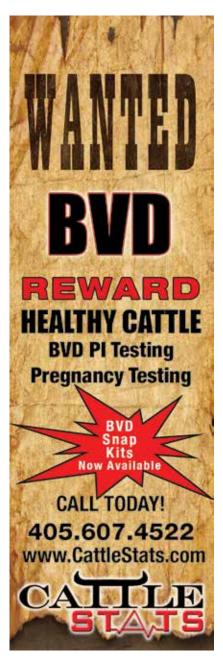
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# **ON TARGET**

# Vaccinate with a Plan

# Calf health begins before breeding season

Story By Justin Sexton

 $\bot$  to winter is a busy time, regardless of your calving sea-

Spring calvers wrap up weaning or fine-tune their preconditioning programs while getting cows ready for 2016. Fall calvers wrap up that season and prepare for breeding, traditionally signaled by Thanksgiving for those willing to start calving in late August. That holiday week is also when many fall-born calves get processed for the first time because cows are gathered for pre-breeding vaccines.

A big part of successful herd Futurity data shows for evmanagement comes down to effective vaccinations. The two-month old fall calves' maternal antibodies are on the decline, allowing them to develop an immune response. Getting their first shots with

6

The transition from autumn males castrated then will minimize stress and optimize health at weaning. And it's a lot more convenient than the roundup a month before weaning, when there might be concerns about using modified-live products on calves nursing pregnant cows.

> Whenever you process cows and calves, make sure it is part of an overall plan developed with your veterinarian. Herd health is paramount at every stage, and vaccinations are proven to enhance calves' ability to gain and grade.

> **Iowa Tri-County Steer Carcass** ery antibiotic treatment a calf must receive, both carcass quality grade and average daily gains decline. You can't afford to risk those losses, especially when a growing beef supply and erratic markets

pose a greater challenge to profit for retained ownership

Vaccines also play a key role in consumer discussions as they ask more questions about how cattle are raised and beef is produced. With increasing scrutiny on antibiotic use in meat animals, everyone in the supply chain should work to prepare calves to successfully move through the production channels. Vaccines combined with management and nutrition represent the best method to reduce antibiotic use in beef production.

If you have a spring-calving herd, you know the importance of making sure cows are ready for winter. Pre-calving management should focus on accumulating adequate body condition prior to calving and quality colostrum development.

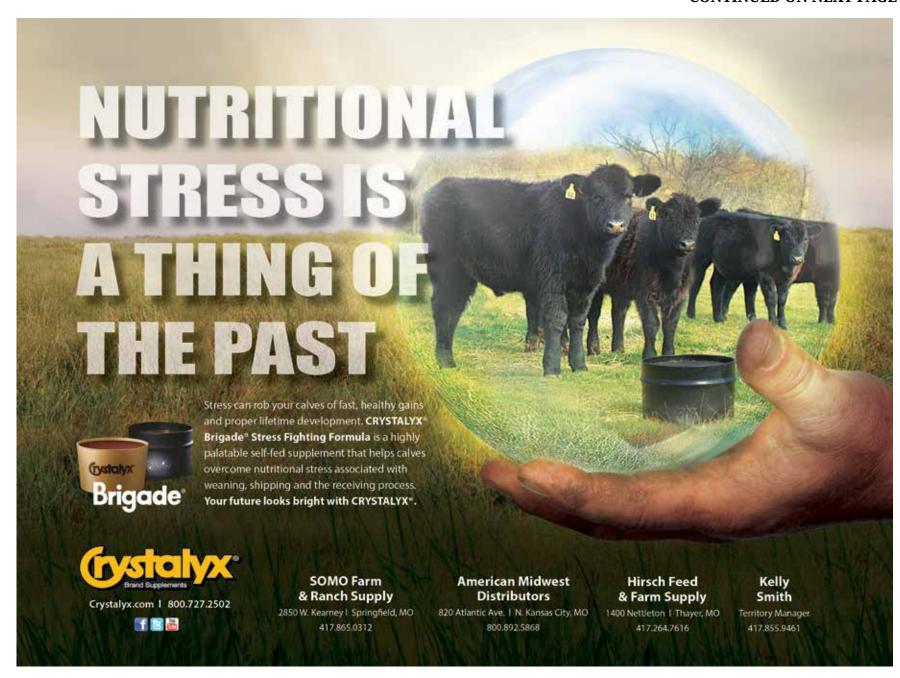
Cows will be lighter conditioned at weaning than at any other time of the year because of lactation demands. Weaning the calf instantly increases nutritional status of the cow as milk production stops. Deworming then also increases her nutrient supply by reducing the parasite burden.

During the milder fall and early winter weather, take advantage of the cow's opportunity for compensatory gain and accumulate needed precalving body condition rather than waiting until later in the season. Accumulated body condition will serve as an insulator during winter while ensuring adequate nutrients are available to form quality colostrum.

Many people worry that feeding cows too well contributes to calving problems. However, more concern comes from underfeeding cows prior to calving. Yes, that will reduce birth weight, but it will also cause weak cows and calves, poor-quality colostrum and reduced re-breeding success. Excessively fat cows might have calving problems, but most of those are bull selection issues rather than a nutritional one.

Part of the pre-calving management program might in-

# **CONTINUED ON NEXT PAGE**



# Temperament Counts, Even in Genetics

# Poor temperament adversely affects profit

Story By Glenn Selk

Once fall weaning takes place, spring-calving cows could be sorted into keep and cull groups so producers can decide which cows no longer are helpful to the operation and which heifer calves will be kept for future replacements. Selecting against ill-tempered cattle has always made good sense. Wild cattle are hard on equipment, people, other cattle, and now we know that they are hard on the bottom line.

Mississippi State University researchers (Vann and co-workers, 2006. Southern Section of American Society of Animal Science) used a total of 210 feeder cattle consigned by 19 producers in a "Farm to Feedlot" program to evaluate the effect of temperament on performance and net profit. Temperament was scored on a 1 to 5 scale — 1 = nonaggressive, docile; 5=very aggressive, excitable. Three measurements were used — pen score, chute score and exit velocity. Measurements were taken on the day of shipment to the feedlot. Exit velocity is an evaluation of temperament that is made electronically by measuring the speed at which the animal leaves the confinement of the chute. Exit velocity and pen scores were highly correlated. As pen scores increased, so did exit velocity. As pen score and exit velocity increased, health treatment costs and number of days treated increased, while average daily gain and final body weight decreased. As pen score increased, net profit per head tended to decline. Pen temperament scores and net profits per head were as follows: 1=\$121.89; 2=\$100.98; 3=\$107.18; 4=\$83.75; 5=\$80.81. Although feed and cattle price relationships have changed since this data was collected, one would expect similar impacts from the temperaments of cattle under today's economic situation.

Colorado State University research examined the effects of temperament on weight gains and the incidence of dark cutting. Cattle were temperament ranked, on a 5-point system, while animals were held on a single animal scale. Their results show there is a highly significant effect of temperament ranking on average daily gain. Animals exhibiting the highest temperament ranking also have the lowest average daily gains. Conversely, animals that were the calmest had the highest average daily gains. Their results also show that those cattle that have the highest temperament ranking, those that were berserk, also have the highest incidence of dark cutters. Dark cutter carcasses will be discounted approximately \$20-\$25

# VACCINATE WITH A PLAN FROM PREVIOUS PAGE

clude a scours vaccine. To improve protection, those should be given early enough to allow an immune response prior to colostrum development. Since colostrum formation begins around five weeks prior to calving, scours vaccines need to be given 8 to 12 weeks prior to calving, depending on label recommendations.

Calf health is a process beginning before the breeding season. Regardless of when you calve, autumn and early winter are critical times to ensure future success all the way to the consumer. For a look at ways to better manage that high-quality beef in the kitchen, visit http://www.certifiedangusbeef.com/kitchen/roast\_perfect.php.

—Justin Sexten is supply development director for Certified Angus Beef.



### **CONTINUED ON PAGE 9**

# **HEALTH WATCH**

# **Finding Balance in Genetics**

# Managing the herd for expression of genetic potential

Story By David Rethorst for Cattlemen's News

or cattle to truly express the **t** their full genetic potential, management must keep several factors in balance. To explain this point to his producers, a good friend of mine, Dr. Randall Spare, uses a four-legged milk stool as an illustration. The top of the stool represents herd performance. The legs represent nutrition, health, genetics and docility. If each of the four leg components is managed properly, the stool top is level, and the herd performance is optimal. If one or more of the legs are not managed as they should be, the stool is unstable resulting in less than optimal performance.

In recent years, several fetal programming studies have shown us that the need to manage nutrition properly begins early in pregnancy. It makes sense when I see a study that shows under-nutrition early in pregnancy reduces the number of muscle and fat cells formed in the fetus. The intriguing thing is that another study shows that over-nutrition early in pregnancy reduces the number of muscle and fat cells in the developing fetus. The takehome on this is that if you are breeding cattle that you want to market on a grid, you want the optimal number of muscle and fat cells. In order to a chieve that, the cows need

breeding.

to have nutrition to meet their requirements, not underfed, not overfed. Supplementation of adequate protein in late pregnancy also plays a role in the absorption of colostrum. The fat found in colostrum serves as an energy source for the newborn calf. Optimal reproductive performance is dependent on proper nutrition. In other words, adequate protein and energy should be provided to maintain a body condition score (BCS) of 5.5 throughout pregnancy and

Several components to the health leg of our stool exist, including stress management. Early-in-life castration reduces stress that, in many cases, has been associated with weaning and allows the immune system to function better. Low-stress handling throughout life and low-stress weaning methods improve the health of the

calves. Viruses such as infectious bovine rhinotracheitis (IBR) virus and bovine virus diarrhea (BVD) play a significant role in the development of respiratory disease as well as other issues. The vaccination protocol should address both of these viruses. There should also be a protocol in place to address the removal of cattle persistently infected (PI) with BVD virus from the herd.

Nutrition is another part of the health leg of the stool because the cow dumps trace minerals to the fetus during the last three months of pregnancy in order for the calf's immune system to function properly the first 60 days of life. Protein and trace mineral supplementation play a role in cattle health performance in the feedyard. Two papers out of New Mexico State University indicate that the manner in which protein is supplemented to cows has an effect on feedyard health even though the calves were put through a 45-day preconditioning program on the ranch. A difference in the manner in which trace minerals were supplemented in these cows might have contributed to this health effect.

The tools that are available today to aid in genetic selection are absolutely amazing. Forty years ago the industry used actual birth weight, adjusted 205-day and yearling weights, weaning and yearling ratios and a lot of "eyeball" in the selection process.

The predictability of the outcome was low, and progress was relatively slow. The use of EPDs began in the early 1980s. The size of the database used to develop EPD's helped predictability improve, along with the rate at which progress could be made. Today, EPDs exist for many measurements. Calving ease direct and dollar beef are two very useful EPDs that combine several parameters into one EPD. In recent years, genomic testing has been added to the toolbox. When the use of this tool is combined with the use of EPDs, predictability and consistency of the end product is excellent. We now have the tools to select bulls to address deficiencies in a herd with pinpoint accuracy.

Docility is the fourth leg of the stool for several reasons. The most obvious reason is that docile cattle are easier to handle. This helps keep tempers in check while working cattle, but more importantly improves the safety of the crew. Docile cattle are easier to wean, thus reducing weaning-associated stress and improving cattle health. Improved feedyard performance is another advantage of docile cattle. Profitability is greater because of improved average daily gain, feed efficiency and grading. Genetics comprises a portion of the docility leg of our stool because there is an EPD for docility. As with other EPDs, selecting animals in the top 5 percent of a

**CONTINUED ON NEXT PAGE** 



### FINDING BALANCE IN GENETICS • FROM PREVIOUS PAGE

breed for docility will allow for faster progress than selecting an animal in the top 20 percent of a breed.

Keeping the top of the stool level requires a thoughtful, system-based approach. Care must be taken to ensure unintentional consequences result from a change. Let's keep the top of the stool level and the cattle performing at an optimal level.

—Dr. David Rethorst is director of outreach for the Beef Cattle Institute at Kansas State University.

# Why Have a Calving Season?

# Sell more pounds of calf when you pull the bull

Story By Glenn Selk

Two of the most asked questions in the cattle industry in the southern United States are, "If I pull the bulls out for part of the year, won't I lose an opportunity to get a few calves? Should I leave the bull out with cows year round?"

To answer those questions, a research analysis of 394 ranch observations from the Texas, Oklahoma and New Mexico SPA (standardized performance analysis) data set provided insight into the age old argument about leaving the bull out or having a defined breeding season. Oklahoma State University and Texas A&M agricultural economists presented a paper at the 2004 Southern Association of Agricultural Scientists. They found a positive relationship between number of days of the breeding season and the production cost per hundredweight of calf weaned. Also, they reported a negative relationship between number of days of the breeding season and pounds of calf weaned per cow per year.

The data suggested that for each day the breeding season was lengthened, the annual cost of producing a hundred pounds of weaned calf increased by 4.7 cents and pounds of calf weaned per cow per year decreased by 0.158 pounds. The range of breeding seasons in the data set was from extremely short (less than one month) to 365 days or continuous presence of the bull. The trend lines that resulted from the analysis of the data give us an opportunity to evaluate the economic importance of a defined breeding season. The producer that leaves the bull out year round or 365 days would sell 45.82 fewer pounds of calf per cow per year on the average than producers with a 75-day breeding season. That same producer would have \$13.63 greater costs per hundredweight of weaned calf than the producer that used a 75-day breeding season. In this era of cost/price squeezes, a well-defined breeding and calving season provides a better opportunity to survive the volatility of cattle prices and input costs.

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

### **TEMPERAMENT COUNTS • FROM PAGE 7**

per hundred pounds compared to carcasses with normal colored lean. In fact 25 percent of the cattle that had a temperament score of 5 exhibited dark cutting, while less than 5 percent of the cattle that had temperament scores of 1, 2, 3 and 4 exhibited dark cutting.

Heritability is the portion of the differences in a trait that can be attributed to genetics. The heritability of temperament in beef cattle has been estimated to range from 0.36 to 0.45. This moderate level of heritability indicates that real progress can be made by selecting against wild cattle. Whether we are marketing our calf crop at weaning or retaining ownership throughout the feedlot phase, wild, excitable cattle are expensive to own and raise.

—Source: Glenn Selk is Oklahoma State University emeritus extension animal scientist.

# 37th Annual Production Sale Saturday, November 21, 2014 10 a.m. • at the Farm • Mexico, MO



Lot 6 SydGen Legacy 2813 Birthdate: 10/02/12 Reg.# 17521426

This proven, flush brother to the \$113,000 SydGen FATE 2800 sells, along with progeny, and the first major offering of FATE progeny.



SydGen FATE 4777
Birthdate: 096/01/14
Reg.# 18000658

From the first calf crop by SydGen FATE 2800 and the dam of SydGen For ALL, this top prospect posted an adj YW of 1380 lbs; adj SC of 39.7 cm; adj RE of 18.7 and a 6.1 Frame



Lot 57 SydGen Googol 4617 Birthdate: 09/08/14

Reg. # 18135786

The Number 2 ADG and adj. YW of the fall bull division, he scanned adj. REA of 20 sq. in. and adj. YW of 1,501 lbs.



Lot 10 SydGen Black Pearl 5059

Birthdate: 01/02/15 Reg.# 18169993

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- 27 proven dams in the top 10% for \$W and 36 in the top 10% for \$B!
- Nine cows that have served as donors here, and nine designated Pathfinder® Dams.
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- The 122 fall yearling bulls averaged 3.26 ADG, 1,286 lbs. adj. YW, 37.4 cm. SC, 4.65% IMF, 16.2 sq. in. REA, .36 rib fat, .39 rump fat and 5.94 frame score.

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# **NEXT GENERATION**

# **Beyond Cookie-Cutter Farm Planning**

# Operation's uniqueness demands customized transition plan

Story By Darren Frye for Cattlemen's News

Alot of uniqueness and variety exists in today's family farm operations. That's great, but getting a transition plan in place for the farm can seem endless. It can be easy to start feeling overwhelmed.

Michael Boehlje Danny Klinefe ter — a couple of the speakers brought up some good points on this topic. They

The key here is to make sure that you're very clear on what you want to have happen in your plan. What are your ultimate goals? Unfortunately, as some farm families have discovered, you can end up with a terrific-looking, leather-bound estate plan that doesn't accomplish what you want for the future of your farm.

During an event and panel discussion we hosted this past August — featuring Jolene Brown, David Kohl,

10

Michael Boehlje and Klinefel-Danny ter — a couple brought up some good points on this topic. They mentioned that farm families need to discuss what they'd like to have happen in their legacy plan before they ever set up an appointment with an estate planning attorney.

These family discussions are critical to making sure your family sets up a plan that accomplishes what they actually want to do. Otherwise, most attorneys have, and utilize, boilerplate documents in some form, which are sort

of like 70 to 80-page prepackaged templates. Those documents provide a couple of different options for how an estate plan could be set up.

# 'Cookie-cutter' plans

Unfortunately, if the goals and wishes of the farm family aren't fully discussed and understood before legal documents are drawn up, the fam-

> ily could be encouraged to use a 'cookie-cutter' estate plan template.

The complexities and unique nature of family farms to-day are typically going to require more than a template document. Trouble brews if that plan isn't set up to what the family wants to

do what the family wants to have happen to their estate.

Farm families need to have discussions about the future of their farm before they ever make that first appointment with the attorney. A facilitator, such as a legacy advisor, can be helpful to guide the family through the types of discussions that need to occur

and the decisions they'll need to make before meeting with an attorney.

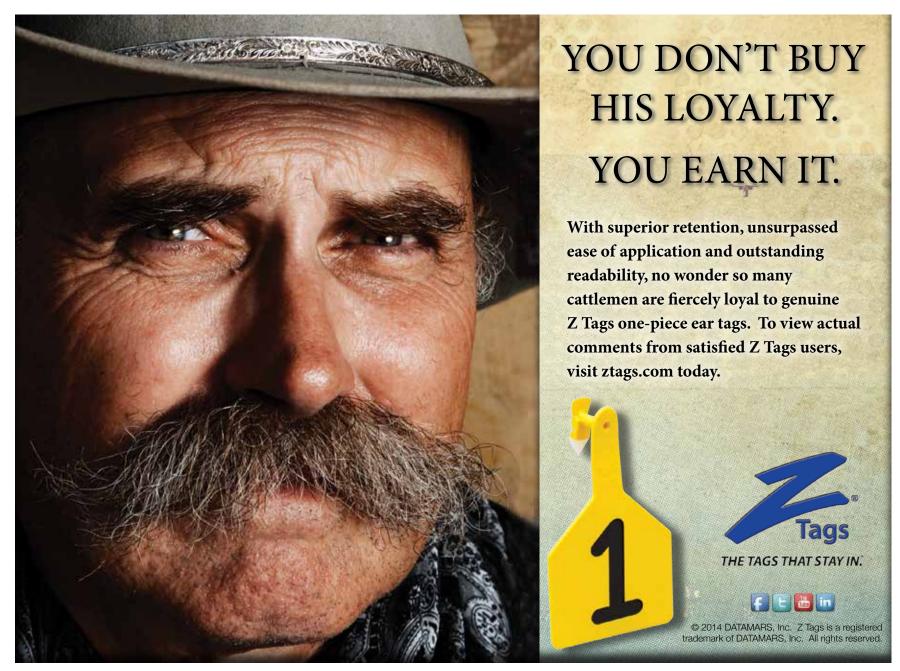
Having a legacy advisor help guide the discussions can allow the family to go to the attorney with a clear idea of what they want to do in their estate plan. Then, the attorney can help them figure out how to accomplish their goals with the right legal vehicles and documents.

When family members' wishes are made clear and the right discussions take place about the family's desires for the future of the farm, then all of the relevant factors can be taken into account to design an estate plan that's best for their farm. Make sure your family has the right conversations before you decide to meet with an estate planning attorney.

# Winter learning opportunity

This month, there will be an opportunity in Lincoln, Nebraska, to learn from farm family business and succes-

**CONTINUED ON NEXT PAGE** 



### **BEYOND COOKIE-CUTTER** FROM PREVIOUS PAGE

sion planning expert Jolene Brown. She'll be sharing eight take-home tools for transitioning labor, management, leadership and ownership in her session at the Water Street EDGE farm business seminar on Nov. 30 and Dec. 1.

Brown's learning session, 'If We Huff and Puff, Will We Blow Your House Down?' will help farm families start to lay the foundation for the legacy of their businesses – the types of transitions I write about each month in this column.

Also presenting sessions at the seminar will be ag economist

David Kohl as he helps you position your farm for agility in today's ag economy, noted market analyst Arlan Suderman on 'Making Sense of the Markets', and myself, speaking on taking the farm's performance to the next level.

You can find the full agenda for the Water Street EDGE farm business seminar and register by visiting www.waterstreet.org/edge or you can call 866.249.2528. There's a discount for groups of five or more people from the same operation, so give us a call if you're interested in having a group of family members or employees from your operation attend. There's also an

opportunity to register for the same program in January, in Champaign, Illinois.

–Darren Frye is President and CEO of Water Street Solutions, a farm consulting firm that helps farmers with the challenges they

face in growing and improving their farms – including the challenge of transitioning the farming operation to the next generation. Contact Darren at waterstreet@ waterstreet.org or call (866) 249-*2528.* <sup>1</sup>

# Show-Me-Select

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7 p.m. • Nov. 20, 2015 Joplin Regional Stockyards

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### Program Requirements:

- · Heifers have met minimum standards for reproductive soundness, pelvic size, body condition and weight and are free of blemishes.
- · Heifers have been bred to bulls meeting strict calving ease/birth weight EPD
- · A strict immunization program has been followed including official Brucellosis calfhood vaccination. All heifers have been found negative for BVD-PI.
- · Heifers will calve from mid-January to April 30 and were preg-checked within 30 days

### Consignors Include:

Gilmore Farms, Aurora; Robert Miller, Aurora; Bart Renkoski, Purdy; Sam Schaumann, Billings; Cupps Cattle Co., Shell Knob; Kunkel Farms, Neosho; John Wheeler, Marionville; Jason Hudson, Jenkins; Sampson Farms, Hartville; Terry Potts, Jerico Springs; John & Janet Massey, Aurora; Circle S Chicks, Stark City; Mast Farms, Lamar; Mark McFarland, Stella; Bill McCloy, Licking; Ken & Diana Folsom, Grovespring; Jane Rogers, Pottersville; and Brent Brooks, Boonville.

For more information contact: Eldon Cole 417.466.3102 or 466.3386 • colee@missouri.edu http://www.swmobcia.com/

# NEWS TO USE

# **NRCS Awards \$84,000** in Conservation Grants

The USDA Natural Resourc- NRCS has offered this grant es Conservation Service (NRCS) state office in Missouri awarded approximately \$84,000 for two Conservation Innovation Grants (CIG) to the University of Missouri. The selected grants, funded through the Environmental Quality Incentives Program, will test and prove innovative approaches to conserving America's private lands.

Awarded \$49,049 for a study on animal impact on soil health, the USDA funds will measure the impact on soil health from applied manures and grazing livestock in a prescribed grazing system and also finance field days and demonstrations on private farms that include livestock and soil health parameters. The pilot project will complement current research and provide a better understanding of the diversity of the surrounding producer ecosystem, which includes a mix of crop and livestock producers.

An additional \$34,953 was awarded to the University of Missouri to integrate available water holding capacity information into future versions of the University's Crop Water Use application (app). Funding will also be used to educate Missouri farmers on use of the app, which will promote farmer implementation of irrigation management by using the extension weather station mesonet.

program since 2004, investing in ways to demonstrate and transfer efficient and environmentally friendly farming and ranching. In the past several years, these grants have helped develop trading markets for water quality and have shown how farmers and ranchers might use fertilizer, water and energy more efficiently.

—Source: Missouri Natural Resources Conservation Service.

# PUBLIC NOTICE TO MISSOURI BEEF PRODUCERS

The Missouri Director of Agriculture has received a petition from the Missouri Beef Industry Council Board of Directors to conduct a referendum of Missouri cattle producers, pursuant to section 275.352 RSMo as amended, to establish a \$1.00 per head state beef checkoff assessment.

A public hearing on the referendum will be held on Dec. 9, 2015, at 10 a.m. at the Missouri Electric Cooperatives building on the Missouri State Fairgrounds, 2503 W. 16th Street, Sedalia, Missouri. At this hearing, all interested persons will have the opportunity to voice their opinions regarding the referendum to establish a \$1.00 per head state beef checkoff assessment. After the hearing, the director of agriculture may approve the petition to conduct a referendum.

If the director determines that a referendum should be held, cattle producers will be required to register in order to vote. If the referendum is held, registration of producers is scheduled to begin on Jan. 4, 2016, and close on March 4, 2016. Registration will be available online at http://agriculture.mo.gov/councils/ or at county Farm Service Agency (FSA) offices.

If the referendum is held, the Missouri Department of Agriculture will mail ballots to registered producers on April 4, 2016.

For more information, contact the Missouri Department of Agriculture, 1616 Missouri Boulevard, Jefferson City, MO 65109 or 573-751-4211

# TRENDING NOW

# **Putting Alfalfa to the Test**

# Queen of forages works at Whitesell Land & Cattle

Story By Brittni Drennan for Cattlemen's News



cluding that it causes bloat and scours or is too high-quality to feed to a beef cow. Yet, alfalfa is a good source of protein and energy. Although it is time-consuming with high input costs, the returns can be rewarding.

Tim Schnakenberg, University of Missouri Extension Agronomy Specialist, said having a few acres of alfalfa could be used to supplement lower quality feed or to creep feed calves. Both are viable options for beef cattle producers.

"If managed well, alfalfa can give many years of return on the investment by providing quality forage that is more productive per acre than typical fescue stands," Schnakenberg said. "With around four cuttings per year, it is not unreasonable to harvest three to five tons."

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Misconceptions exist about Adam Whitesell of Lockwood, Missouri, along with his dad John, have incorporated multiple alfalfa stands into their beef cattle operation. They realize the multiple benefits from feeding alfalfa and prefer it to other protein alternatives.

> "The areas of red soil we have on our farm in southwest Missouri are well-suited for growing alfalfa, Whitesell said. "The soil drains well, which is beneficial for the longevity of the stand. Also, alfalfa will do well in moderately rocky conditions." The Whitesells feed a balance of early-cut fescue hay, alfalfa and sorghum sudangrass to their cow herds.

> Whitesell's use sudangrass and wheat as rotation crops in their alfalfa operation. "When we take out an alfalfa stand, we try and raise something we can utilize as a feed source



(Left) Adam Whitesell explains to attendees at a field day the methods and practices he uses to grow, bale, sell and feed alfalfa on his operation. (Above) Field day participants compare the quality of fescue and alfalfa hay. –Photos by Brittni Drennan

for our cattle," Whitesell said. "Sudan and wheat prove to be the best for us for the amount of feed they produce, and are both extremely palatable, especially if put up in the form of baleage."

However, alfalfa is not for everyone. It takes a commitment in fertility and requires good cutting management. Schnakenberg said alfalfa is a heavy user of plant nutrients, particularly potash. It is very important to conduct soil tests regularly to ensure proper nutrients are being replenished. Grazing alfalfa is an option for producers, but special attention must be given to prevent overgrazing and stand damage due to trampling.

Weed and pest control are also essential to maintaining a quality alfalfa stand. If managed correctly, Schnakenberg said alfalfa stands have the potential to last much longer than five years. Significant reduction of weed competition is critical in the first two years.

Roundup-Ready seed gives producers an advantage.

"One of the great challenges of raising alfalfa is keeping the insect population under control so that significant losses don't occur early in the season," Schnakenberg said. "Growers must be vigilant to scout the stand early before the first cutting and spray the crop with an insecticide accordingly."

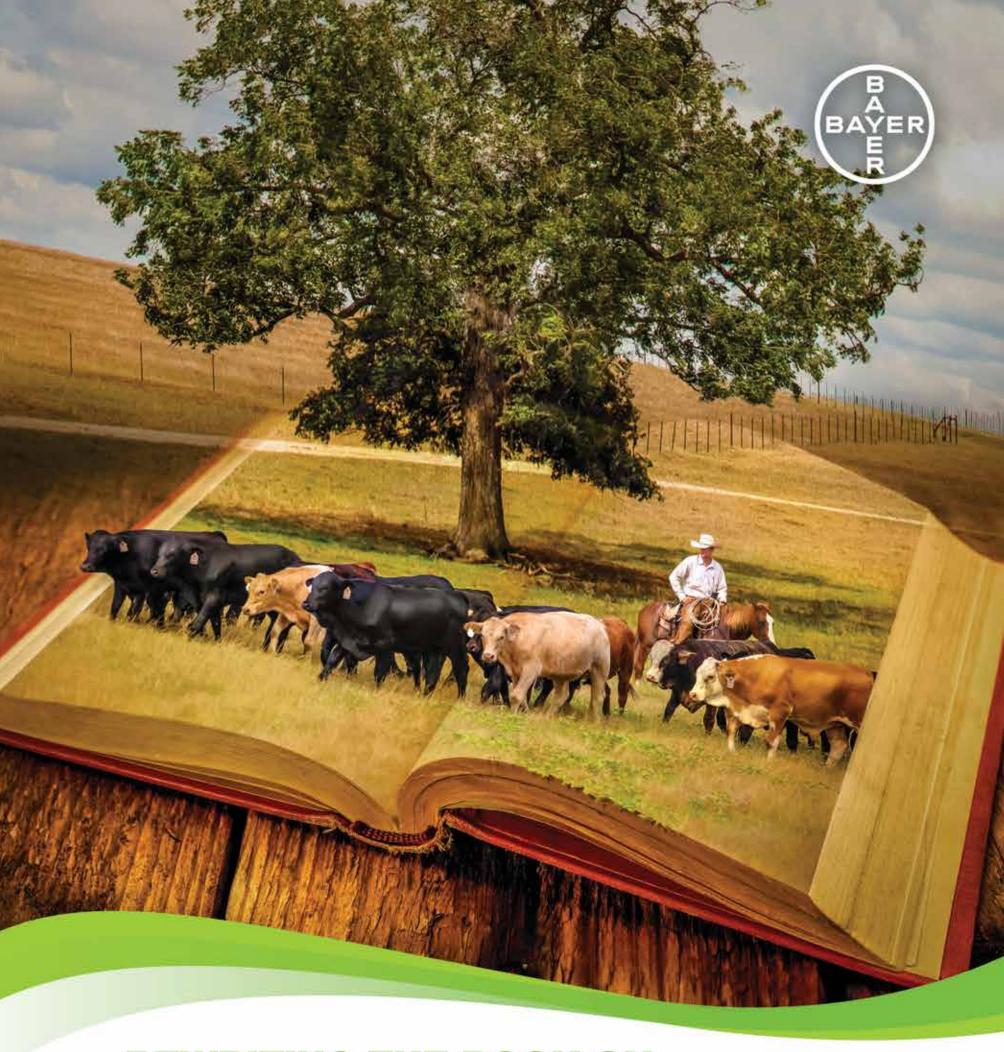
Eldon Cole, University of Missouri Extension Livestock Specialist, agrees alfalfa has advantages. Besides being the most profitable crop per acre, Cole said alfalfa also contributes to better milk production. He said if producers did not have the time and dedication to grow it, they should consider buying it to feed their beef

"Alfalfa makes an outstanding supplement if used wisely, but there is also a place for fescue," Cole said. "A combination of fescue and alfalfa is a great option for cow-calf producers."

(Below) A well-prepared alfalfa stand has the potential to last well over five years, but growing quality alfalfa takes time and dedication. (Right) Alfalfa can be used as a supplement to lower quality feed or can be fed as baleage, providing several options for producers. –Photos by Brittni Drennan







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# **HELPING HANDS**

# **EQIP Sign-up Underway**

# November 20 deadline set for Missouri farmers to apply for assistance

The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) announced Nov. 20 as the first cut off date to apply for fiscal year 2016 funds through the Environmental Quality Incentives Program (EQIP).

EQIP allows farmers, ranchers, forestland managers and landowners to conserve natural resources by making available financial assistance for a variety of conservation activities, such as cover crops, rotational grazing systems, field buffers and animal waste management systems.

General EQIP provides opportunities for financial assistance statewide to applicants who have natural resource problems on their land, including concerns associated with crops, soil health, livestock, forest and wildlife. EQIP also offers special initiatives such as the On-Farm Energy Initiative, Seasonal High Tunnel Initiative, Organic Initiative, Ozark Highlands Restoration Partnership and Regional Conservation Partnership Program.

The On-Farm Energy Initiative provides financial assistance, statewide, for farmers and ranchers to identify ways to conserve energy on their farms through on-farm energy audits, and financial assistance to implement recommendations identified in the energy audits.

The Organic Initiative provides financial assistance, statewide, for farmers to install conservation measures on agricultural operations related to organic production.

The Seasonal High Tunnel Initiative provides financial assistance, statewide, for farmers to construct seasonal high tunnels, which extend the growing seasonal for high-value crops in an environmentally safe manner.

The Missouri Ozark Highlands Restoration Partnership provides financial assistance to help landowners improve the health and resiliency of forest ecosystems where Mark Twain National Forest and private lands meet in southern Missouri. Forest landowners in 27 Missouri counties are eligible to apply for funds to develop and implement forest management plans.

Six Regional Conservation Partnership Program (RCPP) projects will be available in fiscal year 2016. Local partners were awarded RCPP funds to deliver conservation projects in specific regions across the state. The Missouri projects included in this announcement are: Little Otter Creek Watershed Project, in partnership with the Caldwell County Commission; Our Missouri Waters, in partnership with the Missouri Department of Natural Resources; Regional Grassland Bird and Grazing Land Enhancement Initiative, in partnership with the Missouri Department of Conservation; Restoring Glade and Woodland Communities for Threatened Species in the Ozarks of Southeast Missouri, in partnership with the Missouri Department of Conservation; Northwest Missouri Urban and Rural Farmers United for Conservation, in partnership with the Jackson County Soil and Water Conservation District; and Rice Stewardship, in partnership with Ducks Unlimited, Inc.

NRCS accepts applications for all of its programs on a continuous basis, but farmers must file applications for these programs by Nov. 20 to be eligible for the next round of funding. Farmers can submit applications at local NRCS offices. NRCS also offers free technical assistance to all Missouri residents.

More information about NRCS programs and assistance can be found online or by contacting the NRCS office serving your county. NRCS employees in county offices can provide more information about how to apply for benefits offered by NRCS.

—Source: Missouri Natural Resources Conservation Service.

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# **Breeding Program Success Starts With Health, Nutrition**

# The secrets to getting females bred by AI

Story By Joann Pipkin and Lisa Henderson for Cattlemen's News

Having success with artificial breeding might be easier said than done, especially if your herd is lacking in nutrition and herd health management.

"Mother Nature has a way of delaying normal estrus cycles of an animal until her body is physically able to do the job," explains Kent Daniels, Select Sires MidAmerica.

For example, Daniels says many times first-calf heifers are among the most difficult females to get bred back because they are not only raising a calf, but also still growing themselves. "If (a first-calf heifer is) not in good, healthy body condition, Mother Nature is not going to let her cycle."

Winning the breeding game might also be difficult to do without adding valuable members to your team. A veterinarian can lend expertise to developing a health protocol, while a nutritionist is key to creating a feeding program to help maintain cowherd productivity.

Breeding goals, on the other hand, can be established with the help of an artificial insemination technician, Daniels says. "(An AI tech) can help you make better decisions based off of your specific ranching goals."

When using AI without synchronization, cattlemen gain genetic value and might eliminate the number of herd bulls used, Daniels says. "Utilizing estrus synchronization opens up endless opportunities that sight breeding cannot."

Daniels gives this example. All cows have a chance to become pregnant on day one of your breeding season. Synchronizing enhances inestrus cows into normal heat cycles for a tighter calving window. More calves born in the beginning of the breeding season weigh more, and the cattleman is able to make better culling decisions based off of breed-back

and performance of the calves. Also, the producer might be able to implement a more routine whole herd vaccination program.

With many cow-calf producers employed off the farm, Daniels adds that synchronization programs help in planning as typically a large number of cows might have a specific due date and can then be watched more closely for a short amount of time during the calving season.

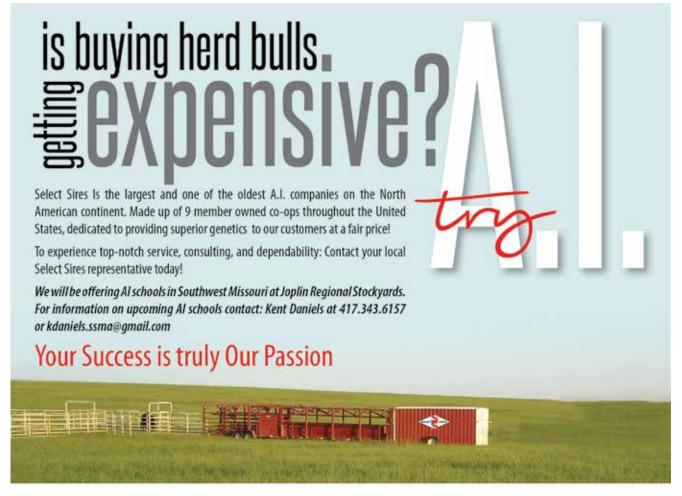
Cattlemen who retain heifers as replacements should consider reproductive tract scoring and pelvic measuring those females before breeding by AI or natural service.

"This procedure will save a lot of headaches down the road," Daniels says.

In addition to Daniels' recommendations, Oklahoma State University Extension Beef Specialist Megan Rolf offers these five tips for success with AI:

**1.** Inspect your facilities to make sure everything is in working order.

- **2.** Make sure everything is clean and sanitized before administering AI.
- **3.** Don't use the same techniques for cows and heifers. The two different classes of cattle don't always respond the same to the same techniques.
- **4.** Be prepared ahead of time and know your limits. Make sure there is a plan in place for how many cows you can handle per day.
- **5.** Utilize estrus synchronization and make sure to administer the synchronization drugs appropriately.





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# **Enhance Performance Through Fetal Programming**

# Managing resources has lasting effects on calves

Story By Brittni Drennan for Cattlemen's News

Cost is often a primary factor in determining feed options for beef cattle herds. Implications of nutritional deficiency vary from health drawbacks to decreased pregnancy rates. And, researchers now conclude calf performance is directly linked to the dam's gestational nutrition.

According to research performed by Richard Funston, University of Nebraska West Central Research and Extension Center, fetal programming suggests calf performance, even through maturity, can be affected by the dam's environment during fetal development. Summarizing research conducted throughout the industry, Funston explains dam nutrition is critical to fetal nutrient transfer in placental development. The dam's nutrition during the first trimester is vital to establishing the placentome, setting the stage for subsequent nutrient transfer required for a growing fetus. Other developmental stages of the fetus are also impacted by the dam's nutrition and environment.

A recent study conducted by Summers and Funston proved

the fetal stage is also crucial for skeletal muscle development because muscle fiber numbers do not increase after birth," (Summers, Funston, 2015, p. 147). "Skeletal muscle is a lower priority in nutrient partitioning compared with the brain, heart, or other organ systems, making it particularly vulnerable to nutrient deficiency."

This suggests dam nutrition during gestation might impact the number of muscle fibers through fetal programming, affecting muscle mass and animal performance. The majority of muscle development of the fetus occurs during the second trimester.

University of Nebraska-Lincoln research compared how supplementing protein during cows' late gestation affected their heifer progeny's performance (Table 1). Although there was no substantial difference in birth weight among the calves, there were significant differences between the two groups later in the calves' growth stages. The heifer calves from supplemented dams showed increased weaning and prebreeding weights and heavier

Table 1. Effect of maternal protein supplementation on heifer progeny performance

		Dietary	treatment			
	Martin et a	I. (2007) <sup>1</sup>	Funston et a	l. (2010b) <sup>2</sup>		
Item	NS	SUP	NS	SUP		
Weaning BW, lb Adj.	456	467	492 <sup>a</sup>	511 <sup>b</sup>		
205-d wt, lb	481 <sup>a</sup>	498 <sup>b</sup>	470	478		
DMI, lb/d	14.39	14.88	20.89	20.50		
ADG, Ib/d	0.90	0.88	1.86 <sup>X</sup>	1.74 <sup>y</sup>		
Residual Feed Intake	-0.12	0.07	0.08	-0.04		
Age at Puberty, d	334	339	365 <sup>X</sup>	352 <sup>y</sup>		
Pregnant, %	80 <sup>a</sup>	93 <sup>b</sup>	83	90		

<sup>1</sup>NS = dams did not receive protein supplement while grazing dormant Sandhills range during last third of gestation; SUP = dams were supplemented 3 times per week with the equivalent of 1.0 lb/day of 42% crude protein cube (dry matter basis) while grazing dormant Sandhills range during the last third of gestation.

<sup>2</sup>NS = dams did not receive protein supplement while grazing dormant Sandhills range or corn residue during the last third of gestation; SUP = dams were supplemented 3 times per week with the equivalent of 1.0 lb/day of a 28% crude protein cube (dry matter basis) while grazing dormant Sandhills range during the last third of gestation.

a,b Means within a study with different superscripts differ (P  $\leq 0.05$  ).

x,y Means within a study with different superscripts differ ( $P \le 0.10$ ).

weights at pregnancy check. In addition, there was a 13 percent increase in pregnancy rates compared to those heifer calves whose dams were not supplemented. Seventy percent of the heifers from supplemented dams also bred back earlier and calved in the first 21 days compared to only 49 percent of the heifers out of the unsupplemented cows.

Another UNL study demonstrated the economic advantage of November-weaned steers out of supplemented dams (Table 2). Calves born to dams supplemented with the equivalent of one pound per

day (28 percent crude protein, dry matter basis) during late gestation showed increased weaning weight, average daily gain to weaning and proportion of calves weaned as compared to calves born to nonsupplemented dams grazing dormant winter range. The research also showed steers from supplemented dams had increased hot carcass weight and marbling scores, and more steers graded USDA Choice or better than those from nonsupplemented dams.

Progeny health, in addition to performance, has been linked to maternal nutrition during gestation. According to research by Larson et al., more feedlot calves from non supplemented cows had to be treated than steers from cows supplemented with protein. Studies also indicated morbidity and mortality rates were higher in calves born to firsttime heifers receiving 65 percent of their energy requirement as compared to first-time heifers receiving their complete energy requirement.

Ensuring adequate maternal dietary needs are met is critical to substantial placental development, allowing the fetus to have optimal growth potential throughout the gestation period. Effectively managing resources can impact the long-term performance of the progeny in a producer's herd.

Table 2. Effect of maternal protein supplementation of steer progeny performance

	Dietary treatment		
	Larson et al. (2009) <sup>1</sup>		
Item	NS	SUP	
Weaning BW, lb DMI, lb/d	514 <sup>a</sup>	529 <sup>b</sup>	
	19.8 <sup>X</sup>	20.3 <sup>y</sup>	
ADG, lb/d	3.66	3.75	
Feed:gain	5.37	5.38	
HCW, Ib	805 <sup>a</sup>	822 <sup>b</sup>	
Choice, % Marbling score <sup>2</sup>	71 445 <sup>a</sup>	85 492 <sup>b</sup>	

<sup>1</sup>NS = dams did not receive protein supplement while grazing dormant Sandhills range or corn residue during the last third of gestation; SUP = dams were supplemented 3 times per week with the equivalent of 1.0 lb/day of 28% crude protein cube (dry matter basis) while grazing dormant Sandhills range or corn residue during the last third of gestation.

a,bMeans within a study with different superscripts differ (P  $\leq$  0.05).

x,yMeans within a study with different superscripts differ (P  $\leq$  ).10).



treatment or within 33 days of subcutaneous treatment. Do not use in calves to be processed for yeal. Intramuscular rejection may result in local tissue reaction which may result in trim loss at daughter. See product labeling for full product information, including adverse reactions.

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

For customer service, adverse effects reporting, or to obtain a copy of the MSDS or FDA-approved package insert, call 1-886-591-5777.

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# What Can You Get from Hybrid Vigor?

# A look at the value of planned crossbreeding

Story By Elizabeth Walker for Cattlemen's News

This year, the United States Department of Agriculture reported net farm income is expected to drop by 21 percent with a total loss of \$32.8 billion to the American economy as compared to last year. In addition to an expected 6 percent drop in crop receipts, livestock receipts could fall by more than 9 percent with drops of more than 25 percent in dairy and hogs. On the bright side, labor, feed and property taxes are forecast to drop. Recent-

ly, cattle futures dropped by 30 percent in just a few months. While we have no control over

these outside factors that affect our operations, they still affect our daily farm management decisions. And, what we do have control of is the breeding program of our cows.

Planned crossbreeding can be a wise management tool to increase income on your farm. Unless you are a registered seedstock producer, you should probably be using planned crossbreeding. Granted, a single breed

reproductive management program can be more simple, it might not help you maximize profits on your farm.

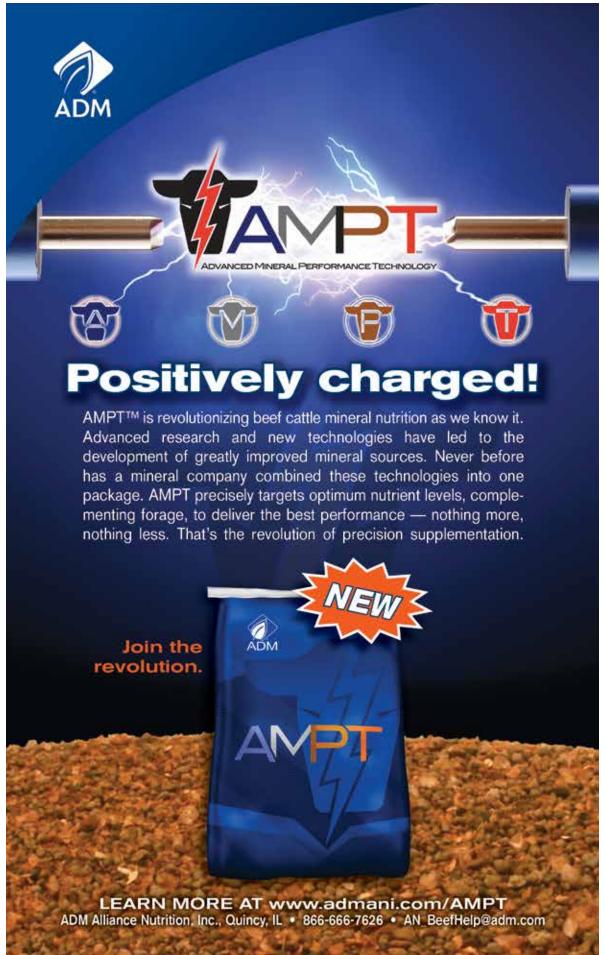
Hybrid vigor or heterosis occurs when two bloodlines that have complimentary traits are combined. The product of that cross should be better than both parents. Selection of the breeds to be crossed should provide traits that are economi-

cally important to you. When I was a student at the University of Missouri, I cabbaged onto some old posters left in a pile headed for the trash. The poster I have right in front of me on my office wall is of an Angus bull with his herd of rangy Longhorn cows out on a desolate prairie with the appropriate cow skeleton in the foreground. Talk about potential hybrid vigor – durability and mothering of the Longhorn crossed with the muscle of the Angus. If I had a cabin on that prairie, I can't say I'd change a thing. The cows fit the environment and the bull provides the growth to make a profitable calf at the livestock market.

Each one of you has his or her own management criteria and breeding goals. If you don't, quit reading and go make some. How will you know if you have accomplished anything if you don't know where you are headed? In general, your cow herd should be compiled of animals that work for you in your environment and the bull should provide what the consumer wants — beef. One of the best times to crossbreed is when you have a uniform set of cows. Not everyone has this, and if you don't, perhaps your first goal should be to find a breed that can provide uniformity to your cows. Once your cows are somewhat uniform, selecting a bull with a set of traits that complement those cows can help you increase production and most importantly, increase profits.

Traits that should be improved with an F1 cross are growth, reproduction, stress tolerance, and sometimes forgotten, the immune system. The success of an animal to fight off a pathogen is partially due to its innate immune system, which has been influenced by their genetics. Those genetics have been influenced by natural selection. If you have two breeds of animals that developed in two opposite parts of the world, you are able to combine their successful immune systems into their progeny.

My husband and I are registered Red Angus producers, yet we dived off the train and purchased a Senepol bull. We have his first set of calves hitting the ground



### **CONTINUED ON NEXT PAGE**

# **PASTURE PLANNING**

# Time to Rewind?

# Planning is important when converting cropland back to pasture

When corn was \$7 a bushel, more farmers converted pasture from grass to row crops. Now, with crop prices much lower and pasture values on the rise, many of those farmers are thinking about putting those acres back into grass.

While converting cropland back to pasture might make economic and environmental sense, and offers the chance to improve your forage system, it does take time and planning, says University of Missouri Extension forage specialist Rob Kallenbach.

"Deciding you want to change from row crops to perennial grass is not a decision to be made in 30 minutes," Kallenbach says.

He says the first thing producers need to figure out is what kind of forage they want to plant and how it contributes to the whole farm system.

Just because you have cool-season grasses, doesn't mean you need more, he says. Perhaps a warm-season grass can add diversity and provide better forage for multiple seasons.

Converting cropland back to pasture also offers the opportunity to establish nontoxic novel endophyte varieties faster and more easily than trying to go from one perennial grass to another.

It's important to test soil for residual herbicides that could affect grass and livestock fertility. Soil testing should be done early because limestone can take time to break down and change soil pH, Kallenbach says.

He also recommends having seed delivered ahead of time. "Often, we're working with either perennial warm-season or cool-season grasses. Supplies of those products can be limited or at least are not as easily attainable in a short time frame, so planning ahead really helps."

If fences were removed from the converted pastures, they will have to be rebuilt before livestock can graze there. Joe Zulovich, an MU Extension agricultural engineer, says this gives producers the opportunity to improve their pasture system.

"When you look at the intensive grazing or the rotational grazing programs that are out there, you may want to take a step back and see if one of those would help better utilize the pasture," Zulovich says.

Fencing can be expensive, but Zulovich says the Natural Resources Conservation Service has had a cost-sharing program for pasture fencing. Contact your local NRCS office for more information.

—Source: Univ. of Missouri Extension.

### WHAT CAN YOU GET • FROM PREVIOUS PAGE

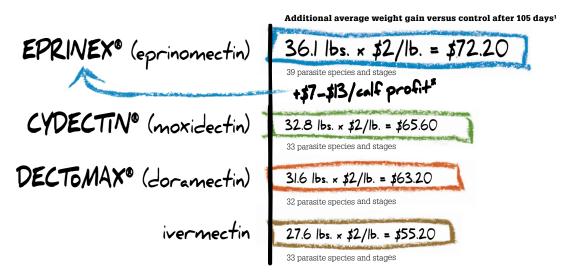
now. Our idea was to take our maternal cows and produce an F1 cross that was more heat and humidity tolerant, thus being more efficient and productive during our hot, humid Missouri summer. Time will tell if we made a wise decision. If we get a shot of strengthened immune system, then all the better. On the other hand, our ewes are a crazy looking set of hair sheep that appear to only have the lack of needing shearing as their common trait. These ewes have been selected for parasite and disease resistance and the ability to raise a lamb without assistance. Yes, they come in every color, but they are uniform in the traits that matter to us. We just purchased a few hair rams that should add growth, muscling and uniformity of size and color—again matching our environment to our customer needs. Hybrid vigor isn't just a cow thing, but a good management tool for many aspects of agriculture.

—Source: Elizabeth Walker is associate professor of animal science at Missouri State University.

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From the weather to markets and production costs, agriculture is full of gambles. Using multiple sires in the breeding program is no different. And, from a genetic standpoint, there are definite advantages to using multiple sires in natural breeding programs.

"Using multiple sires allows us to hedge our bets or take less risk when making selection decisions such as purchasing a bull," says Jared Decker, beef cattle geneticist with the University of Missouri. "If we use only one bull but make a bad decision, the entire calf crop will underperform. But, if we use multiple sires, the calf crop will perform as expected (the average EPD of the group of sires)."

Decker adds that if heifers are culled from the underperforming sires, herd replacements kept from the on target and over-performing sires will actually increase the rate of genetic progress compared with using a single sire.

Pregnancy rate might also be increased using multi-sire mating when compared to using single sires, according to Dan Moser, director of performance programs, American Angus Association. "Turning out multiple bulls may provide some insurance against a bull becoming infertile during the breeding season. Depending on the size and terrain of the breeding pastures, multi-sire mating may be a necessity in many commercial herds."

DNA testing plays a critical role in managing against one of the main disadvantages of multisire pastures — identifying the calf's sire.

"By submitting a hair or blood sample on calves and potential sires, producers can know how many calves were sired by each bull, and which calves are sired by the most desirable bulls."

Moser says depending on how long a bull is kept in a herd, he might still be working on the ranch when his first daughters are of breeding age.

"Knowing the sire of each replacement heifer can help prevent inbreeding in commercial herds, which would result from unintended sire-daughter matings," Moser says. "By reviewing the distribution of calves by sire, producers can get a better idea of how many bulls are optimum for their herd size and pasture conditions."

According to Decker, genomic testing for genomic-enhanced expected progeny differences (GE-EPDs) takes some of the risk out of the process. "Genomic testing in GE-EPDs provide the same amount of information as 10 to 20 progeny of the bull. So, it is like we have the bull's first calf crop on the ground when we are purchasing him as a yearling or two-year-old."

Additionally, Decker says commercial heifer genomic panels allow cattlemen to make more accurate decisions about who goes in the replacement heifer pen and who goes down the road.

Once calves are on the ground, cattlemen can begin genetic management of multi-sire pastures.

"DNA can easily be collected on young calves at branding time, or whenever they are being processed," Moser says. "Blood samples, which require just a few drops from the ear or under the tail, or hair samples, pulled from the tail switch, provide plenty of DNA for parentage testing."

Results are available about three weeks from submission of samples, indicating the most likely sire of each tested calf. Once parentage is known, producers can evaluate weaning weights by sire and determine which bulls should be kept for another year, and which bulls' daughters are preferred as replacements, Moser says.

"Some commercial producers buy bulls from several suppliers, and DNA parentage would reveal which replacement females trace to each seedstock source," Moser notes. "Over time, difference in which bulls sired the most productive replacements can help guide future bull purchases."

Moser adds that if producers use artificial insemination (AI) prior to turning out clean-up bulls, parentage can clearly indicate which calves are AI-sired.

"Heifers sired by AI bulls are

usually the most desirable replacements," Moser says, "and may command a premium if sold to other producers.

The bull with the strongest libido will breed the most cows in multi-sire pastures, so Decker says it's important that all of the bulls that are turned out have desirable EPDs.

Commercial producers might benefit from heifer tests such as GeneMax Focus and GeneMax Advantage as those not only identify the most likely sire, but also provide information on heifers' genetic potential for a variety of traits, Moser says. "Once samples have been collected for parentage, the additional cost of GeneMax Focus to gain information on postweaning gain and quality grad potential, compared to testing only for parentage, is minimal."

"The best tool for selecting sires for a multi-sire pasture is an economic selection index," Decker explains. "The index is going to allow us to put selection pressure on many different traits, with the objective to maximize our farm's profit."

As breed associations publish more and more EPD's, cattlemen might start to feel information overload, and Decker says the economic selection index allows producers to make accurate and consistent decisions based on a single number.

"Economic selection indexes really simplify cattle breeding," Decker says.

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# **Success from the Start**

# Management is key to a successful breeding season

Story By Lisa Henderson for Cattlemen's News

Beef industry experts agree. Preparation is the key to a successful breeding season. Whether your operation is large or small, spring-calving or fall, proper management of both bulls and cows will increase your conception rates and put dollars in your pocket come sale day.

With breeding season for fall-calving herds rapidly approaching, beef specialists remind producers of critical steps to help settle more

cows. Among the first of those is to have a definitive breeding season, and experts say most commercial herds should utilize a shorter breeding season.

Oklahoma State University beef specialist Glenn Selk said bulls should not be left with the cows yearround. OSU and Texas A&M agricultural economists found a positive relationship between the number of days of the breeding season and the production cost per hundredweight of calf weaned. They also found a negative relationship between number of days of the

breeding season and pounds of calf weaned per cow per year.

"The data suggest that for each day the breeding season was lengthened," Selk said, "the annual cost of producing a hundred pounds of weaned calf increased by 4.7 cents and pounds of calf weaned per cow per year decreased by 0.158 pounds."

The data Selk cited is from a standardized performance



analysis (SPA) of 394 ranches from Texas, Oklahoma and New Mexico. The range of breeding seasons in the data was from extremely short

(less than one month) to 365

days or continuous bull pres-

ence.

industry experts recommend commercial cattlemen utilize a shorter breeding season. Females should be in body condition score 5 or higher prior to start of the breeding season. —*Photos by Joann Pipkin* 

"The trend lines that resulted from the analysis of the data give us an opportunity to evaluate the economic importance of a defined breeding season," Selk said. "The producer that leaves the

bull out year-round (365 days) would sell 45.82 fewer pounds of calf per cow per year on the average than producers with a 75-day breeding season. That same producer would have \$13.63 greater costs per hundredweight of weaned calf than the producer that used a 75-day breeding season. In this era of cost-price squeezes, a well-defined breeding and calving season provides a better opportunity to survive the volatility of cattle prices and input costs."

After you have determined your breeding season, the next step

is to make sure your bulls are ready. Kansas State University cow-calf specialist K.C. Olson said it is a common mistake to assume bulls with a healthy appearance are also reproductively capable.

"Breeding soundness examinations should be carried out 30 to 60 days prior to a planned breeding exposure," Olson said. "Enough lead time should be allowed so that bulls failing BSE can either be retested closer to the onset of breeding season or replaced."

But once capable bulls are turned out with the cows doesn't mean your worries are over. Healthy, reproductively sound bulls can fail during the breeding season.

Olson said there are two primary reasons for in-season bull failures. "One, bulls become injured during breeding activity, or, two, bulls are over-conditioned prior to service," he explained. "To avoid financial catastrophe due to bull injuries, bulls should be checked daily during the breeding season. Bulls that are isolated from the rest of the herd or are ignoring cows in standing estrus are likely injured and should be restrained and examined as soon as possible."

# **CONTINUED ON NEXT PAGE**

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### SUCCESS FROM THE START FROM PREVIOUS PAGE

How you manage your bulls prior to the breeding season is just as important.

"Bulls that are over-conditioned and under-exercised prior to breeding are more prone to injuries," Olson not-ed. "Bulls can be brought to optimal pre-breeding condition by feeding a diet vetted by a qualified nutritionist while simultaneously providing opportunities for, and motives for, exercise."

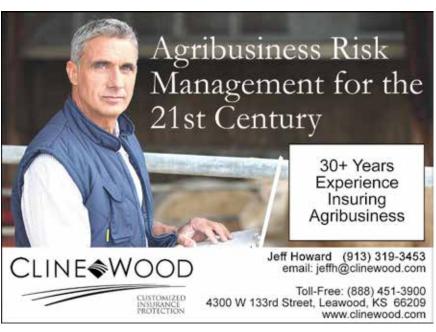
Ideally, bulls should be maintained in spacious pastures with varied terrain. "Fence line contact with females of the same species should be avoided," Olson said. "This minimizes fighting and riding behavior. Water, mineral and supplemental feeding locations on a pasture should be varied to motivate bulls to travel. This forces bulls to travel distances similar to those they will cover when pursuing estrual females."

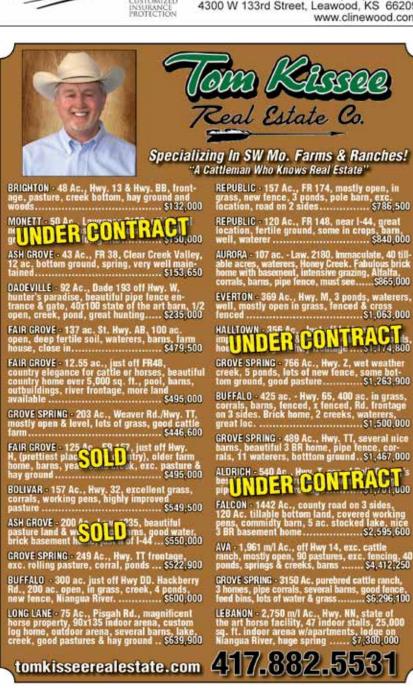
It is critical for females to begin the breeding season in proper condition. Industry experts recommend that cows are body condition score (BCS) 5 or higher prior to breeding. Weights can fluctuate significantly between calving and breeding, and that can have a dramatic effect on re-breeding success. Weight loss on first-calf heifers can be even more severe. Olson said the most common mistake is failure to keep pace with the nutrient demands associated with early lactation.

"Females in negative energy balance lose significant body weight and body condition in the weeks preceding breeding exposure," he said. "The results are progressive: failure to return to estrus within 45 days postpartum, delayed pregnancy (or reproductive failure), later parturition the following year and poor weaning weight associated with younger calves at weaning.'

If your cows are thin or your forage and feed supplies are short, experts recommend you consult a nutritionist or local beef specialist to adjust your feeding program. Neglecting nutrition needs now can result in costly open cows later.







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# What's New in DNA Technology?

# What commercial cattlemen need to know

Story By Lisa Henderson for Cattlemen's News

New genetic selection tools and ever-changing technology can leave a commercial cattleman feeling overwhelmed. If you were just starting to feel comfortable using EPDs to make bull selections, you're not alone. Now there are new, even more challenging selection tools available. Fortunately, you can find guidance in using modern selection tools in a variety of ways.

To assist commercial cattlemen, a new website dedicated to beef cattle genetics was launched in June during the 2015 Beef Improvement Federation Conference held in Biloxi, Mississippi. The site, eBEEF.org (http://ebeef.org/) is part of the national eXtension program designed to be a one-stop site for beef cattle genetics and genomics information.

University of Kentucky animal scientist Darrh Bullock, one of the site developers, said, "Often, beef producers get frustrated when they search for information online and get information overload. We wanted to develop a user-friendly site that provides information in a concise, understandable way without having to sort through enormous amounts of information."

"The use of DNA parentage panels to establish paternity (the sire) of a calf can be a very useful and inexpensive tool."

# -Bob Weaber Kansas State University

The site contains educational material compiled by beef cattle specialists from six land grant universities, and contains fact sheets, frequently asked questions (FAQ) video clips, relevant conference recordings and webinars, and links to other useful sites.

The first step to success with today's selection information is to recognize the increase in accuracy is the advantage to genomic EPDs. That's especially true for animals that are younger and have lower accuracies in traditional genetic evaluations. Yearling bulls, for instance, commonly produce an increase in accuracy from the 20 to 30 percent range up to the 40 percent to 45 percent range.

But, you don't have to become an expert in the ever-changing field of DNA technology to capture the benefits of the technology.

"Having faith in your seedstock supplier and industry representatives can help minimize the stress," said Twig Marston, CEO, Red Angus Association of America. "Technology is moving fast, and trying to stay up to date is difficult."

Bob Weaber, Kansas State University extension cow-calf specialist, said while there may be many new selection tools, some of the most useful are not new. "The use of DNA parentage panels to establish paternity (the sire) of a calf can be a very useful and inexpensive tool," Weaber says.

Calving difficulties might be a time to use DNA testing.

"If you have a dystocia event," Weaber explained, "be sure and sample tail switch hair from each calf. If the problem grows, you can genotype the calves and the potential sires to determine the sire that's causing issues."

To make this work, be sure to collect a DNA sample from all of



your natural service sires. Weaber advised producers to collect DNA on all bulls before turning them out for their first season. Blood cards or hair (root) samples from the tail switch are easy to collect and are shelf-stable. Collect them and store away in a cool, dark, dry place until you need them.

genetic improvement through selection or marketing. One

"Some of the various breed panels and replacement female panels can be useful in describing the genetic merit of calves, especially those where no other information may be available," Weaber said. "These tests range widely in cost and utility, so make sure you have a plan to capture the value of the component of many of them is paternity assignment. So, it may be helpful to know both genetic potential and inferred pedigree to help guide you to the best replacements and select ones that provide simplified mating strategies later. Using these tools, you could, for example, identify and preferentially retain heifers produced in your AI program rather than clean-up sired calves."

Marston said a useful tool at the Red Angus Association is testing for Herd Navigator to replace heifers using EPDs with genomic data. "It is a good way to identify and to make better management decisions."

The Herd Navigator provides vital genetic information on tested Red Angus-influenced commercial females, according to Marston. Tested females receive genetic information in the form of individual percentile rank as compared to the herd, and individual percentile rank as compared to all other Red Angus-genotyped animals.

"The Red Angus Herd Navigator is a great tool to utilize for mating and culling decisions," says Halla Pfeiff, DNA & breed improvement projects coordinator at the Red Angus association. "The Herd Navigator allows producers to evaluate their own females while also comparing with the breed population."

Traits included in the Herd Navigator are Red Angus' Herd-

Builder and GridMaster Indices, all EPD traits and parent verification, given the potential sires have been tested with the RA50K test. Because the DNA test is breed-specific, the Herd Navigator should only be used on females that are at least 75 percent Red Angus.

The association says the culmination of information delivered through the Herd Navigator provides commercial producers with an unmatched tool for guiding selection decisions.

Some common mistakes Weaber sees commercial cattlemen making is using Molecular Breeding Values (MBV) results to replace EPDs.

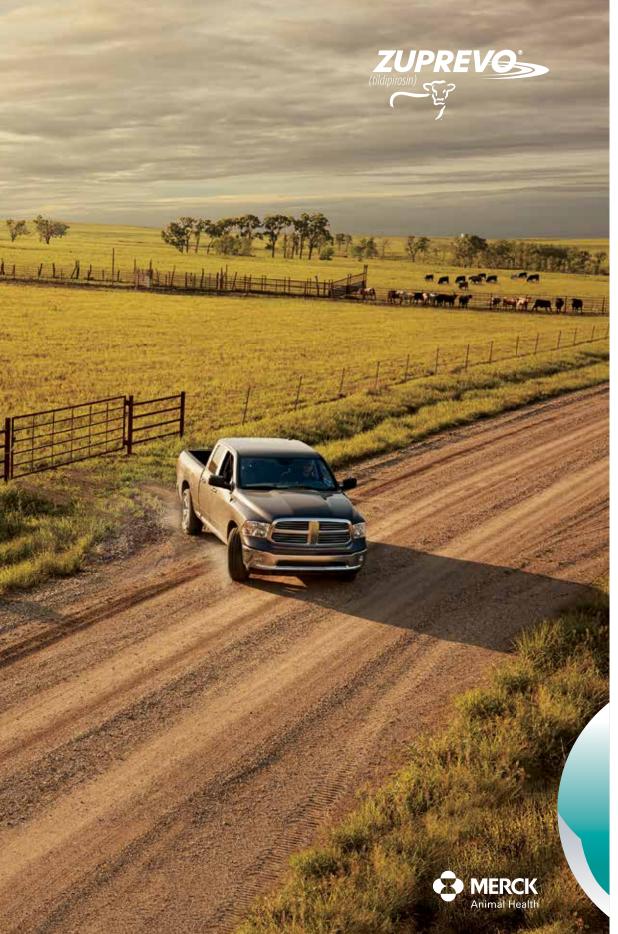
"Now that most breed associations are using genomic data to directly adjust EPDs of bulls, there is no added or better value in using the MBV separately," he says. "MBV results do not replace EPDs. In fact, the MBVs only account for a portion of the genetic variation in a trait. An MBV is only part of the information that is included in an EPD. Using MBV alone or in tandem with GE-EPDs will decrease your selection efficiency."

Weaber said the principle goal of using DNA information in genetic prediction is to increase the accuracy of an animal's EPDs. Selecting bulls with improved accuracy means those EPDs are more reliable and are expected to change less as more information becomes available. However, he emphasized "improved accuracy has real value to commercial producers. Making more precise selection decisions helps you achieve your selection goals quicker."

Weaber encouraged commercial producers to utilize the new eBEEF.org online tool.

"It has up-to-date information on a wide range of beef genetics topics and includes fact sheets, short video clips and archived webinars," he says.

Marston said using resources such as extension services from universities and breed websites to stay up-to-date on the latest DNA technology information is a good idea for commercial cattlemen. "The top people in the nation are working at these universities, and producers should pay attention."



# **Do Away With Dystocia**

# A look at pelvic area and how it relates to calving ease

Story By Brittni Drennan for Cattlemen's News

task of pulling a calf on his or her "to do" list? Dystocia impacts death loss and brings with it higher veterinary costs, increased labor and calving assistance and potential cow loss. Simply put, dystocia is the disproportion of the calf's birth weight in relation to the cow's or heifer's pelvic area. In addition to selecting low birth weight bulls, producers should consider taking pelvic measurements of their fe-

hat cattleman wants the According to a publication from the University of Arkansas, pelvic area measurements in the Management of Replacement Heifers by Tom Troxel, the best time to measure pelvic area in heifers is prior to their first breeding, between 12 and 14 months of age. Producers can easily implement this practice into their management program while giving vaccinations. Lauer suggests measuring heifers earlier rather than



Veterinarian Brent Lauer demonstrates how to properly use a Rice pelvimeter to measure pelvic area. –Photo by Brittni Drennan.

males and selecting for larger pelvic area to reduce dystocia and difficulties associated with calving.

"Research concludes pelvic measurements are related to calving ease," said Brent Lauer, a veterinarian, at the Cattlemen's Stewardship Clinic held this fall at Lucas Cattle Company near Wheatland, Missouri. "And, if you have a calf that is bigger than that box, it's not going to fit easily, and you're likely to have problems."

The pelvic area is determined by using a Rice pelvimeter to measure the pelvic area, expressed in cm<sup>2</sup>. The Rice pelvimeter is inserted into the rectum of the heifer and pushed into the pelvic inlet. Vertical height is multiplied by the horizontal width dimensions of the internal pelvic opening to determine pelvic area.

manage them.

To take out some of the guesswork, ratios (see Table 1) have been developed to predict the size of calf a 2-year-old heifer could deliver without assis-

If the heifer's weight varies

considerably at the time the pelvic area is measured, Troxel suggests using different ra-

later to determine how to best

Table 2. Pelvic area/calf birth weight ratios for various heifer weights and ages to estimate deliverable calf birth weight. Age at Measurement, Months

Heifer Weight (Ib)	8-9	12-13	18-19	22-23
500	1.7	2.0		
600	1.8	2.1		
700	1.9	2.2	2.6	
800		2.3	2.7	3.1
900		2.4	2.8	3.2
1,000		2.5	2.9	3.3
1,100				3.4

Table 1. Estimating Deliverable (Without Assistance) Calf Birth Weight Using Pelvic Measurements.

Age of Heifer	Pelvic Area (cm²)	Division Factor	Est. Calf Size (lb.) Without Assistance
12-14 Months	140	2.1	67
(600 lbs.)	160	2.1	76
	180	2.1	86
18-19 Months	180	2.7	67
(1,800 lbs.)	200	2.7	74
	220	2.7	82

tios. Table 2 shows ratios to use for various weights and ages. Troxel said these ratios were good indicators of dystocia, with an accuracy of approximately 80 percent.

Pelvic measurements might be used as criteria to cull heifers with a small pelvic size due to their potential for dystocia and calving difficulty. Troxel said size and weight is not always an accurate indicator of pelvic size, so all heifers should be measured and mated according to pelvic size. He also said pelvic area will grow slightly as the female ages, but only at a rate of 0.27 cm<sup>2</sup> per day and continues at a slower rate until the cow reaches maturity.

Lauer cautioned producers against heifers with abnormally sized pelvic areas. If a heifer measures 10 x 16 with a 160 cm<sup>2</sup> pelvic area, that doesn't mean she won't have calving difficulty.

"I like a box," Lauer said. "And, heifers are usually taller than they are wide. I say at weaning your minimum should be around 140 cm<sup>2</sup>, at breeding, 160 cm<sup>2</sup>, and if you're measuring at preg-check, I say 180 cm<sup>2</sup>."

Pelvic area heritability ranges from 36 to 92 percent with an average of 61 percent, indicating pelvic area is a highly heritable trait and will respond quickly to selection, according to research conducted by Gene Deutscher, emeritus professor at University of Nebraska. But, Troxel said birth weight is not necessarily correlated with pelvic area.

"By selecting both bulls and heifers for pelvic size, a herd of cows with large pelvic areas could be developed," Troxel said. "However, selecting only for pelvic size would probably result in an increased mature cow size."

Lauer said pelvic size is indicative of the age of the female and the breed. Typically, British breeds, because they are early maturing, will have a larger pelvic area at an earlier

"Heifers with larger pelvic areas usually tend to have bigger calves, so if you go breeding them to bigger birthweight bulls on purpose, you can still have a train wreck."

Troxel said pelvic area and shape is another factor to add to the calving difficulty complex and should not be the only selection criteria for improving calving ease. In ranked order, Troxel said these criteria should be used to reduce calving difficulty:

- Breed heifers to proven calving ease bulls by selecting low birth weight expected progeny differences (EPDs).
- Develop heifers to prebreeding target weights.
  - Ensure heifers are in good body condition prior to calving with a minimum body condition score of 5.
  - Obtain pelvic measurements at yearling age and cull heifers with abnormally shaped or abnormally small pelvic areas.



Extended-Release Injectable Parasitiode

5% Sterile Solution

NADA 141-327, Approved by FDA for subcutaneous injection For the Treatment and Control of Internal and External Parasites of Cattle on Pasture with Persistent Effectiveness

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

#### INDICATIONS FOR USE

LONGRANGE, when administered at the recommended dose volume of 1 mL per 110 to (50 kg) body weight, is effective in the treatment and control of 20 species and stages of internal and external parasites of cattle:

Gastrointestinal Roundworms	Lungworms	
Bunostomum phiebotomum - Adults and L	Dictyocoulus viviparus	
Cooperin oncophorn - Adults and L <sub>4</sub>	Adults	
Cooperia punctata - Adults and L <sub>4</sub>		
Cooperia surnabada – Adults and L.	T.,	
Haemanchus placei — Adults	Grubs	
Desophagostomum radiatum – Adults	Hypoderma bovis	
Ostertagia lyrata — Adults	I and the second	
Ostertagia ostertagi - Adults, L., and inhibited L,		
Trichostrongylus axer – Adults and L	Mites	
Trichostrongylus colubriformis – Adults	Sanoptes scabiel var. bovis	

Parasites	Durations of Persistent Effectiveness		
Gastrointestinal Roundworms			
Bunostomum phiebotomum	150 days		
Cooperia oncophora	100 days		
Cooperia punctata	100 days		
Haemonchus placei	120 days		
Desophagostomum radiatum	120 days		
Ostertogia lyratir	120 days		
Ostertagia ostertagi	120 days		
Trichostrongylus axer	100 days		
Lungworms			
Dictyocoulus 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 1101b body weight).

#### WARNINGS AND PRECAUTIONS

### Withdrawal Periods and Residue Warnings

Animals intended for human consumption must not be slaughtered within 48 days of the last treatment.

This drug product is not approved for use in female dairy cattle 20 months of age or older, including dry dairy cows. Use in these cattle may cause drug residues in milk and/or in caives born to these cows. A withdrawal period has not been established for pre-ruminating caives.

Do not use in colves to be processed for yeal.

# 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 cartile for injection site reactions if irrjection site reactions are suspected, coroult your veterinarian. This product is not for intravenous or intramuscular use. Protect product from light. LONGRANGE® (eprintemectin) has been developed specifically for use in cattile 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 heet 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 extendedtelease anthelminic products may encourage the development of parasite resistance. It is recommended that parasite resistance be monitored following the use of any anthelminitic with the use of a fecal egg count reduction test program.

### TARGET ANIMAL SAFETY

Clinical studies have demonstrated the wide margin of safety of LONGRANGE\* (epoticomectin). Overdosing at 3 to 5 times the recommended dose resulted in a statistically significant reduction in average weight gain when compared to the group tested at label dose. Treatment-related lesions observed in most cartle administered the product included swelling, hyperonia, or necrosis in the subcutaneous tissue of the skin. The administration of LONGRANGE at 3 times the recommended therapeutic dose had no adverse reproductive effects on beef cown

at all stages of breeding or pregnancy or on their calves.

Not for use in bulls, as reproductive safety testing has not been conducted in males intended for breeding or actively breeding. Not for use in calves less than 3 months of age because safety testing has not been conducted in calves less than 3 months of age.

### STORAGE

Store at 77° F (25° C) with excusions between 59° and 86° F (15° and 30° C). Protect from light.

### Made in Canada

Manufactured for Merial Limited, Duluth, GA, USA.

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1050-2889-02, Rev. 05/2012

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SEASON-LONG PARASITE CONTROL • 15,000 HEAD • 9 STATES

# **+28 POUNDS AVERAGE**

Looks like our secret is out.

# LONGRANGE averaged 0.28 lbs./day more

 Thanks to LONGRANGE® (eprinomectin), parasite control will never be the same.

Comparing more than 15,000 head in nine states, stockers treated once for parasites with LONGRANGE gained an average of 28 lbs. more over DECTOMAX\* (doramectin), CYDECTIN\* (moxidectin), SAFE-GUARD\* (fenbendazole) and ivermectin-treated cattle – even when used in combination over 103 days. And at today's market prices, that adds up to an extra \$56 per head. Not bad for around a \$5 investment.

If you want results like this, talk to your veterinarian about LONGRANGE or visit the LONGRANGE look.com.



Available in 500 mL, 250 mL and 50 mL bottles.

Administer subcutaseeesly at 1 mL/110 fbs.

20 months of age or older, including dry dairy cows, or in veal calves. Post-injection site damage (e.g., granulomas, necrosis) can occur. These reactions have disappeared without treatment.

Data on file at Merial

<sup>&</sup>lt;sup>2</sup> Dependent upon parasite species, as referenced in FOI summary and LONGRANGE product label.

<sup>3</sup> LONGRANGE product label.

# **Cattle Feeding 101**

# The basics on ruminant nutrition

Story By Brittni Drennan for Cattlemen's News

**66** The rumen is an ecosystem in itself, with microbes constantly working to digest food," said Ted Perry, cattle nutritionist at Purina Animal Nutrition.

Perry described how the rumen operates and how cattle convert forage into nutritious food at the Cattlemen's Stewardship Clinic held earlier this fall at Lucas Cattle Company near Wheatland, Missouri.

Perry compared the rumen to a huge microbial fermentation vat. In one mL of rumen fluid, one would find 10 billion bacteria, one million protozoa, and 10,000 fungi. Microbes digest feed and supply energy and protein to the host animal. These microbes produce Volatile Fatty Acids (VFAs), acetate proprionate and buterate, all used by cattle for energy. Microbes grow and are flushed out of the rumen with feed particles to the lower digestive

tract to be digested and then used as a protein and energy source.

"We are essentially taking grass and turning it into beef," Perry said. "The better the microbes are fed, the more the microbes multiply, and the more VFAs are produced and the more energy cattle have."

What and how producers feed has an effect on which microbes grow, how feed is utilized and the nutrients available to cattle. So how do producers maximize the value of their forage? It begins, initially, with water in both quality and quantity, Perry said. Water accounts for about 98 percent of an animal's body, and is required for body temperature regulation, growth, reproduction, milk production and digestion.

After water, rumen bugs require ammonia, energy, macro

minerals and trace minerals in the appropriate amounts in order to multiply.

"For optimal feed utilization, these need to be supplied in an even, consistent manner," Perry said. "By

feeding bugs appropriately, you maintain a proper balance of microbial bugs."

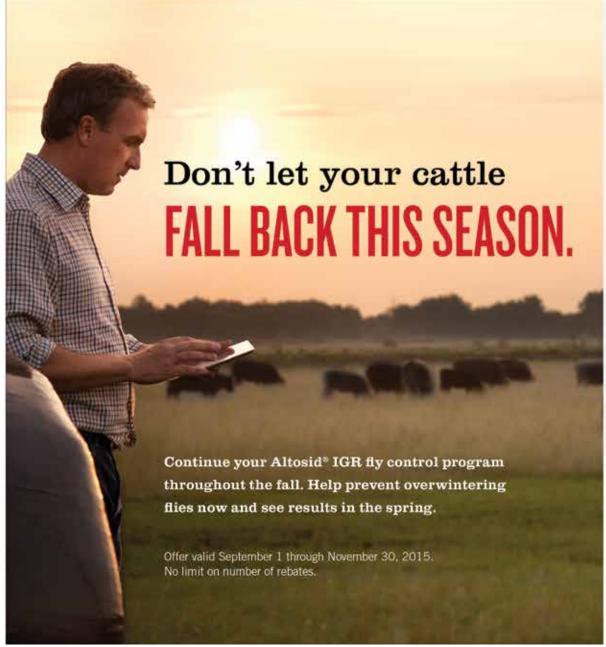
That's why it's important to slowly transition into feedstuff supplement changes. A balanced diet and slow diet changes prevent lactic acid bugs from multiplying to an undesirable quantity. Perry said it takes approximately three weeks at minimum to get the rumen to completely transition to new feedstuffs. After stress events such as shipping, microbes will be at their lowest, so it is important to build the rumen bugs back as soon as possible.

Starting cattle nutrition is im-

portant to stimulate intake, improve rumen function by increasing microbial protein production, increase disease resistance due to greater vaccine and antibiotic response, and ultimately enhance performance and drive better feed efficiency.

A balanced diet has shown to increase gain, as well as increase hay intake by as much as 30 percent and increase feed conversion by as much as 43 percent.

Beyond feeding cattle, Perry said it is about feeding rumen bugs to promote growth and then multiplying those rumen bugs to digest more nutrients faster, maximizing feed efficiency.





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# 7 Tips for Cow-Calf Profitability

# Herd health keeps you in the black

Story By Brittni Drennan for Cattlemen's News

T os ay outside influences drive change in the cattle industry is an understatement. From added governmental pressure to reduce antibiotic use in food-producing animals, to the drive to feed a growing world population with fewer resources to growing consumer demands about the way food is produced, there isn't one simple fix to every cut in the industry.

According to John Davidson, D.V.M., the best things cow-calf producers can do to heal the industry are prepare calves for

change and maximize return on inputs. Animal health is a key component for achieving both. Davidson, senior professional services veterinarian for Boehringer Ingelheim Vetmedica, Inc., and president of the American Association of Bovine Practitioners (AABP), said if producers collectively do a better job of preventing the threat they know is coming, then the need for mass medication and dependency on antibiotics will be reduced industry-wide. Secondly, maximizing return on all inputs allows producers to increase production with limited resources.

During a presentation earlier this fall at the Southwest Missouri Cattlemen's Seminar in Springfield, Missouri, Davidson presented seven management tips that move cow-calf producers toward profitability as compiled by colleague Daniel Posey, D.V.M.

# 1. Conduct Breeding Soundness Exam (BSE) on bulls.

Davidson said it is critical to conduct a BSE on every bull every year and to cull sub-fertile bulls. Talk with a veterinarian and insist on BSE against the Society for Theriogeneology (SFT) standard for more accurate results. Cull against sub-fertile bulls to improve first service conception rate, which will drive pounds of calf weaned. A BSE reveals information on any defect a bull may have and whether or not the bull will possibly grow out of the condition.

"Why are we not getting more calves in the first 21 days of calving season?" Davidson said. "Because we are not selecting against sub-fertility in our bulls."

# 2. Palpate cows and remove non-producers.

Davidson suggested producers assign a reproductive tract score to females to help with culling criteria, creating a standard within the operation. An economic advantage exists to reproductive tract scoring. The score is based on a scale of one to five with five being the best. Davidson revealed research results showing heifers with a tract score of 5 had an average calving date 16 days earlier than those with a 4 and an average of 35 days better than those with a tract score of 3.

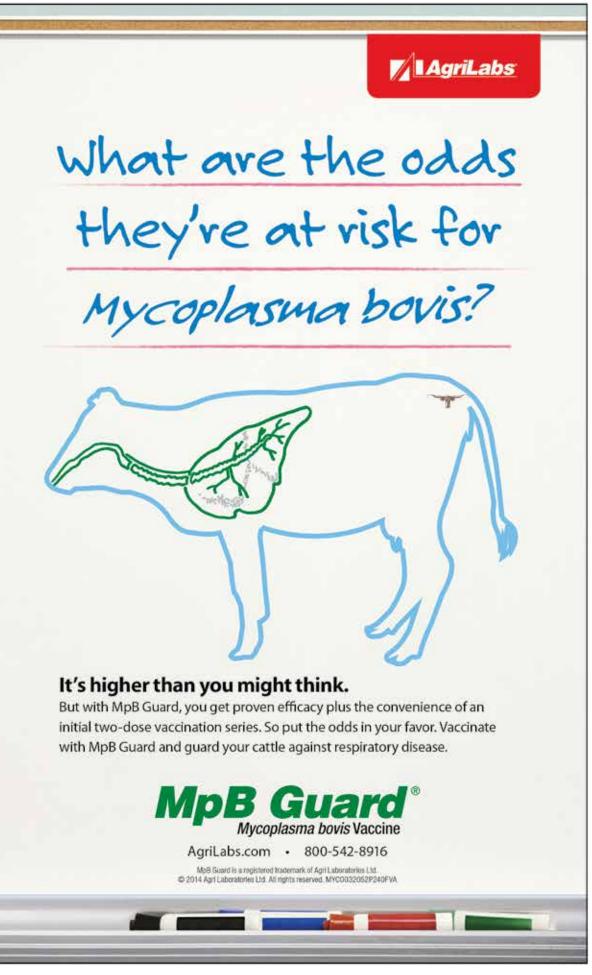
"You can do the math on pounds per day gained by those older calves with today's market prices and see there's an advantage in selecting for those highly fertile, mature reproductive heifers," Davidson said.

When purchasing replacement heifers, Davidson said producers should cull against heifers that have a small pelvic area, reducing dystocia and difficult births, both traits that will have a negative effect on calf health.

# 3. Maintain cows in adequate body condition at calving.

"The better condition a cow is to a certain point, the more likely she is to get pregnant during the first service," Davidson said.

# **CONTINUED ON NEXT PAGE**



### 7 TIPS FROM PREVIOUS PAGE

BCS is based on a scale of 1 to 9, with 9 being the fattest. Davidson said ideally cows should have a 5.5 BCS score at calving, and young heifers should calve at a 6 BCS. Research results Davidson presented show complications due to poor body condition include decreased conception rate, decreased reproduction, delayed return to heat, and increased dystocia — all negative for cow-calf operations. Also, body condition can cause failure to passive transfer, meaning the calf did not get adequate colostrum. Failure of passive transfer increases as body condition decreases.

"Cows have just about 80 days from calving to getting pregnant again to deliver one calf every year," Davidson said. "Cows with a BCS of 4, only 60 percent are likely to be in heat by day 80. If they're (BCS) 5 and above, almost 100 percent will be cycling 80 days out after having a calf."

Davidson said a BCS should be assigned after weaning prior to the next calving, and then it is best to separate thin cows to give them more nutrients until they catch up. Producers should manage thin cows differently if pasture situations

allow. BCS is easy to measure and can be assigned while simply driving through the pasture or while preg-checking.

### 4. Vaccinate the cow herd.

"Vaccinating against the common causes of respiratory disease that we know these calves are going to face as they move to the next segment is a practice we've got to incorporate into the cow-calf herd protocols," Davidson said. "As an industry, we need to move past mass medication and shift our focus on prevention."

Calves will get antibodies from the mother through colostrum, but if the cow is not vaccinated, the calf will not get the antibodies needed to fight disease. Colostrum only represents the exposures of the cow. Colostrum, or adequate passive transfer, is the single most important factor influencing calves' risk of infectious disease, sickness and death prior to weaning. Vaccinate the cow to protect the calf in the first months of its life. Davidson said a study showed that calves with adequate passive transfer will weigh 30 more pounds at weaning and were less likely to be treated in their lifetime. Additionally, 94 percent of calves will grade select or higher at harvest.

"Cow health drives calf health," Davidson said. "Calf health drives performance. Performance translates to the consumer experience. Vaccinating cows is that important."

# 5. Deworm suckling calves.

Two keys to a good vaccination program are good nutrition and effective parasite control.

"Vaccines only do so much, but they have a better chance of being effective if you take the pressure of parasitism off their system," Davidson said. "You can vaccinate and have the best nutrition available, but if you have parasites eating up their gut, then you're missing an opportunity.

# 6. Utilize growth-promoting implants.

Davidson said using growth implants is one cost-effective method producers can use to increase production. Calves must be 45 days of age, but if used properly and timely, implants might return better profits. Implanting the calf between two and four months of age allows a producer to take full advantage of the benefits and should return approximately 37 to 50 pounds of extra weaning weight. If im-

plants cost \$1 to \$2, returning \$18 to \$25 based on \$50/cwt, rate of return should be \$18 to \$25.

# 7. Reduce cost.

Reduce cost by determining your production unit cost, pounds weaned per female exposed.

Production unit cost is the most important number to use to explain efficiency driven by pregnancy, live calves, healthy calves and calves born early in the calving season. With unpredictable fluctuations in the cattle market, it's advantageous for producers to proactively set market strategies by determining unit cost of production. Reducing costs will help producers survive the bad times in the market and take advantage of the good times.

Pre-weaning health practices are becoming more important and will affect calf marketability. The practices producers implement in their operations greatly impact calf performance, even after that calf leaves the operation. Preparing calves for what producers know they will face as they move to the next segment of the production channel is a practice producers must incorporate into their cowherd protocols.



# **Beef for 9 billion**

Preparing to feed nine billion people by 2050 — without depleting our natural resources — may be the greatest challenge of our time. How will we meet that growing global demand? The answer will depend on how sustainable our food production can be.

The beef industry is meeting this challenge head-on — and with an advantage: Sustainability is a philosophy producers already know well. "Farmers and ranchers have been sustainable over time," says Kim Stackhouse-Lawson, National Cattlemen's Beef Association's (NCBA) executive director of global sustainability. "We have sixth- and seventh-generation ranchers — very few industries can claim that kind of sustainable succession. Ranchers work hard to utilize their resources responsibly. I believe sustainability is part of who producers are."

Still, she adds, improvement is always possible, and that's also a familiar concept for the industry. "Continuous improvement is what producers are rooted in. If you ask producers how they define sustainability, nine times out of ten they'll say they want to leave their ranch better than when they got it. That's ingrained in beef culture."

# **Defining terms**

According to Stackhouse-Lawson, sustainability means "meeting the growing global demand for beef by balancing environmental responsibility, economic opportunity and social diligence." Those three pillars are accepted across many different industries as the tenets of sustainability.

For beef, compared to other ag industries, sustainability is somewhat more complicated because beef production varies so greatly. Depending on where an operation is located and what resources are available, inputs will vary; what may be a sustainable practice in Florida may be unsustainable in Montana. A one-size-fits-all approach to sustainability in beef won't work.

### Checkoff research

That's part of the reason the Beef Checkoff funded the largest sustainability assessment ever conducted on beef. Results published in 2013 give producers a better understanding of how management changes over time can affect the sustainability of beef production. They showed that overall sustainability of beef has improved 5 percent since 2006. More importantly, those results offer a level of detail that allows everyone in the value chain to make better management decisions and focus on practices that are known to improve sustainability.

# Going farther

In what Stackhouse-Lawson calls "the next step," the U.S. Roundtable for Sustainable Beef (USRSB) launched last March. With 93 founding members (including NCBA), it is the first sustainability effort to focus on U.S. beef production through a multi-stakeholder collaborative process, she says. The roundtable creates a place for producers, allied industries (such as Elanco Animal Health), processors, retail and civil society (academics, conservancy groups) to work toward more sustainable beef.

"The vision is to be the trusted global leader in environmentally sound, socially responsible and economically viable beef," she says. Members are now working toward several goals: establishing sustainability indicators, developing verification methods and generating field projects to prove sustainability concepts.

Many members were already working on these issues on their own; bringing them together helps amplify those efforts and make them more meaningful for beef.

### **Growing ENOUGH**

Elanco Animal Health is among those already working on sustainability as the creator of the ENOUGH movement, which creates an open dialogue around ensuring food for the future. And, as the recently published ENOUGH Beef Report points out, when it comes to beef, there are only two options to increase production: more animals or more innovation. Given finite resources, limited opportunity exists to raise more animals; technological innovation will have to be the main driver.

"Technology is crucial to meeting growing global demand for 2050," says Stackhouse-Lawson. "Technology can increase efficiency, and at the end of the day, efficiency is the number one driver of improved sustainability. That's well documented." She adds that technology must be broadly understood: It's not only hormones and antibiotics — it's better feed-truck technology, more accurate record-keeping systems and improved land-mapping tools.

The beef industry, including individual producers, will be among the beneficiaries of all these efforts. "Not only will this movement help them understand ways they can continue to improve their operation, it will also provide beef with the most proactive and positive story it's ever had to tell," Stackhouse-Lawson says. "The sustainability story from beef is so powerful because it's so ingrained in producers and their culture."

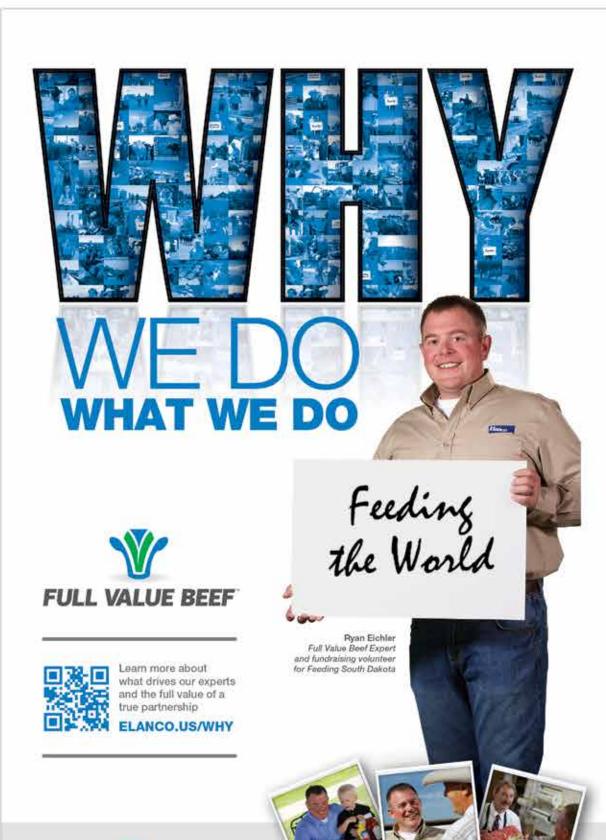
For more information about NCBA's sustainability work, visit beefusa.org. To learn more about Elanco's efforts and how you can be part of the ENOUGH movement, visit enoughmovement.com.





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# **Get Genetics Worth More**

# Buying known bull genetics adds value

Story By Steve Swigert

One of the most important management decisions for a cattle operation is what bull to buy. When cattle producers make bull purchases, several factors should be considered including number of bulls, type, acquisition time, age, source, quality and cost.

For this analysis, it is assumed the purchaser can do a good job of analyzing a bull's phenotype (physical characteristics) prior to purchase. If a producer does not have the necessary skills to visually evaluate the bull, the producer should either ask for help or purchase from operations or sales with breeding soundness or bull health guarantees.

How many bulls should be purchased is directly related to cow herd size. The typical bull-to-cow ratio is one bull to 25 or 30 cows but can vary by pasture size, property roughness and bull age. Producers

Table 1. Economic costs and assumptions

	Bull 1	Bull 2	Bull 3
Purchase price for bull	\$2,500	\$4,000	\$6,000
Average cows per bull	25	25	25
Total calves sired per bull	125	125	125
Years of expected use	5	5	5
Salvage weight of bull	1,850 lbs.	2,000 lbs.	2,000 lbs.
Salvage value of bull	\$2,015	\$2,178	\$2,178
Total annual maintenance costs per bull* (ex. feed & vet)	\$290	\$290	\$290
Total annual ownership costs per bull (ex. depreciation)	\$97	\$364	\$764
Total annual financial costs per bull	\$392	\$659	\$1,059
Total annual economic costs per bull**	\$586	\$903	\$1,363
Total annual economic bull costs per cow	\$23.45	\$36.14	\$54.54

<sup>\*</sup> These assumptions hold the annual carrying cost (i.e. feed, vet, etc.) constant for all three bulls.

with small cow herds are challenged to keep bull cost down while making sure all cows get bred. Having only one bull increases the risk of open cows for small herds because the

bull might have or develop a breeding problem. With highvalue calves, an operation cannot generally afford to have open cows.

**CONTINUED ON NEXT PAGE** 

# FRESH PERSPECTIVES



# FCS Financial & Farm Credit 100 Fresh Perspectives Search

FCS Financial and Farm Credit have proudly supported the men and women of rural communities and agriculture during the last century, and we appreciate the vision it takes to remain successful over time in rapidly evolving, thriving rural industries. As we enter our 100th year, we are launching Farm Credit 100 Fresh Perspectives: a search to identify 100 leaders who are shaping the future of rural America and agriculture, As part of this effort, Farm Credit will contribute \$100,000 to further the efforts of 10 distinguished honorees.

# How to Enter

Do you know a dynamic leader with a fresh perspective in one or more of the categories below?

 Consider: Identify the category or categories that best represent your nominee's area of influence.

 Click: Go to FCSFinancial100.com for entry materials.  Complete: Submit a nomination form and short essay. Nominations accepted until December 18, 2015.

# Selection and Recognition

A panel of experts on rural matters, including Farm Credit leaders and representatives from around the agriculture industry, will evaluate and select the top 100 honorees who showcase the ability to build appreciation for rural communities and agriculture, and further contribute to a vibrant future for rural America.

The final 100 national honorees will be announced in the spring of 2016. Of these, 10 distinguished honorees — one from each nomination category — will receive a \$10,000 award to help further their contributions to a thriving rural America. These individuals will also be recognized at a special event in Washington, D.C., in 2016.

We know infinite fresh perspectives are innovating in rural communities and agriculture. We appreciate your help in bringing them forward to share their stories.

Nominate a leader today at FCSFinancial 100.com.





Join KRMO AG Director Sammy Clapper and the Brownfield Network's Tom Steever on Monday. November 16 at the JOPLIN REGIONAL STOCKYARDS.

Sammy Clapper and Tom Steever will be Live on the Air and on WebTV during KRMO's Farming in the 4 States program from 12 Noon to 1 PM.

Our guest, Brownfield's Tom Steever, has held many offices in the National Association of Farm Broadcasting. He was honored among his farm broadcast peers in 2014 with first place in both the NAFB Newscast and Marketcast contests.

KRMO continues to support the AG community through broadcasts with network programming:

Market Hour • AgriTalk • Market Rally • Radio Oklahoma Network

Locally produced programs such as Squeeze Chute, Machine Shed and Farming in the 4 States.













<sup>\*\*</sup> This includes opportunity costs on land and equity capital.

### GET GENETICS FROM PREVIOUS PAGE

When selecting the type of bull to purchase, bull genotype (genetic makeup) should be selected to complement a cow herd to produce desirable calves. Knowing the genetic potential of the calves helps a producer determine whether to retain ownership past weaning. Uniform calves (both type and color) command higher prices than non-uniform calves at sale time.

Planning ahead usually results in a better selection of bulls with better genetics. Buying earlier gives the bull time to acclimate to the region, the ranch and the handling procedures of the operation. Also, buying early allows for additional growth of 12- to 18-month old bulls, which is the typical age of many bulls in today's market. For spring-calving cow herds, this would mean purchasing bulls in the fall when the number of bulls needed is not vet fully determined. When bulls test infertile during a breeding soundness exam prior to the breeding season or are injured during the breeding season, replacement bulls that match the existing bull battery must be obtained as soon as possible.

In determining where to buy bulls, a cow/calf producer should look for seedstock operators with good reputations, the breed needed, quality genetics and the documentation necessary to validate genetic quality, such as actual performance and expected progeny differences (EPDs).

The bull's quality and cost are commonly linked; a bull that can sire heavier calves should be worth more. The best way to determine a bull's value is potential revenues returned to the operation in the form of calf weight.

Once analyzing the numbers, visually inspect the bulls and

rank according to priority. Then decide how much the bulls are worth. Three bull investment scenarios are provided in Tables 1 and 2: Bull 1 is a typical bull purchased out of a sale barn to just get the cows pregnant; Bull 2 is purchased from a neighbor or friend and could be of known parentage with individual animal performance available; Bull 3 is purchased from a reputable breeder with known genetics, and individual performance information and EPDs are available.

Table 1 shows the total annual economic bull costs per cow for each bull, assuming each performs for five years. From the analysis, the difference between Bull 1 and Bull 2 is \$12.69 per cow, which for a 550-pound calf is \$2.30 per hundred weight. There is a \$31.09 per cow difference between Bull 1 and Bull 3, which on a 550-pound calf is \$5.65 per hundred weight. Table 2 shows examples of how these investments could affect an operation. Tables 1 and 2 demonstrate the performance differences in subsequent calf crops and potential incomes related to purchasing bulls based on EPDs and pedigrees.

It usually pays to purchase good genetics. While every operation might not receive an increase in performance as projected above, operations exist that have seen greater increases. With a high value of gain, relatively small differences in marginal cost relate to significant differences in marginal return. When considering performance differences, bulls that increase calf growth performance are worth a lot more than average bulls and typically do not cost as much as they are worth.

—Source: The Samuel L. Roberts Noble Foundation for Agriculture. Visit the Noble Foundation on the web at www.noble.org.

**Table 2. Economic costs and assumptions** 

	_		
	Bull 1	Bull 2	Bull 3
Increased weaning performance	XX	+50 lbs.	+100 lbs.
Value of increased weaning performance	XX	\$55 per calf	\$110 per calf
(at \$1.10 per pound value of gain)			
Increased yearling performance	XX	0.75 lbs.	1.0 lb.
(difference in average daily gain)			
Increased yearling performance	XX	45 lbs.	60 lbs.
(60 days preconditioned			
Value of increased performance	XX	\$50 per calf	\$66 per calf
Total increased value	XX	\$105 per calf	\$176 per calf
Additional cost per cow	XX	(\$12.69)	(\$31.09)
Marginal return per cow per year	XX	\$92.31	\$144.91
Additional marginal income	XX	\$11,538	\$18,113
(for 125 calves over five years)			



# VFD: Coming Soon to an **Antibiotic You May Use**

# New veterinary feed directive rule now in effect

Story By Dr. Shane Gadberry

**T**f veterinary feed directive or VFD isn't in your ranching dictionary, it's something you need to learn the definition of, how it will apply to your health management program and what communications you will want to initiate with your veterinarian and feed mill or feed distributor to ensure you can manage disease without delay.

For beef cattle producers in Arkansas, chlortetracycline and sulfamethazine are two medicated feed additives that are affected. The FDA has identified these, along with several other antibiotics, as medically important. In an effort to protect the efficacy of these drugs and prevent subtherapeutic use from contributing to antimicrobial resistance, access to feeds containing them will only be available with veterinary oversight instead of over-the-counter.

Historically, cattle producers have been able to purchase several types of supplements fortified with chlortetracycline, including protein tubs fortified with insect growth regulators and medicated with chlortetracycline, mineral supplements, range meals and special purpose feed blends such as starter rations and milk replacers. The labeled use of chlortetracycline in cattle feed includes improvements in weight gain and feed efficiency, control of bacterial pneumonia, control of active infection of anaplasmosis and control of bacterial enteritis caused by E. coli and pneumonia caused by Pasteurella multocida. Since it is overthe-counter, producers have also fed chlortetracycline for off-label purposes, including cattle grazing fescue, pinkeye and foot rot management.

Several changes cattle producers who have used chlortetracycline in the past will have to make include:

- 1. Subtherapeutic use for improved weight gain and feed efficiency will no longer be an approved use. Good alternative medicated feed additives approved for weight gain and feed efficiency improvements that are not used in human medicine will remain available over-thecounter, including Bovatec (ai lasalocid), Gainpro (ai bambermycin) and Rumensin (ai monensin).
- 2. With veterinary oversight, producers will no longer be able to use VFD antibiotics offlabel, so producers will need to work with their veterinarian on treatment protocols and injectable antibiotic solutions for controlling bacterial diseases that are not covered by the label, including pinkeye and foot rot.
- **Anaplasmosis** İS concern in Arkansas, and cattle producers who have used chlortetracycline in the feed for anaplasmosis control should plan early with their veterinarian. Historically, feeding free-choice minerals and purchasing concentrated forms of chlortetracycline to mix into minerals have been standard methods of delivery. Since the dose for anaplasmosis is based on weight and mineral tags have historically given varied intake rates but were offered in free-choice access feeders, it will be interesting to see how the feed directive and medicated feed options develop for dealing with this common health issue. Arkansas is an approved state for using an experimental anaplasmosis vaccine that has been around since 2000. Producers who have had a difficult time controlling anaplasmosis should consider vis- with Aureomycin (chlortetiting with their veterinarian racycline), but when used in about the vaccine.
- 4. Another area of change producers might not anticipate is when they purchase

milk replacers or starter feeds. Non-medicated options are available, but medicated formulations will require a VFD. Stocker cattle receiving rations containing AS700 for bovine respiratory disease control will require a VFD. As veterinary-client-patient relationships develop, the veterinarian can provide direction on the cost effectiveness of medicated feed additives in shipping fever management compared to pulling and treating calves with prescription injectable antibiotics based on farm constraints of available pens for receiving, labor skill and time.

The more commonly recognized medicated feed additives used in Arkansas cow/ calf and stocker cattle management that do not require a VFD include:

- •Bloat Guard: prevention of legume and wheat pasture
- Bovatec: approved for increased weight gain and coccidiosis prevention
- Corid: approved for coccidiosis prevention
- Deccox: approved for coccidiosis prevention
- •MGA: granted for use in heifers intended for breeding for suppression of es-
- Safe-guard: internal worm parasite control
- Rumensin: approved for increased weight gain and coccidiosis prevention

When used according to the label, medicated feed additives can be a cost-effective way of increasing weight gain in cattle and improving health and well-being. Always keep in mind that off-label use is not allowed and only approved combinations of medicated feed additives can be fed together. For example, Rumensin and Deccox is an approved combination; whereas, Bovatec and Deccox is not an approved combination. Bovatec has an approved combination combination will require a VFD for the chlortetracycline.

Practical application when mixing feeds on-farm is one challenge producers face with medicated feed additives, especially when trying to use the most concentrated forms of medicated feeds. For example, a medicated feed additive with a 90 g/lb. concentration contains enough active ingredient in 1 pound to treat 450 calves if the dose is 200 mg per calf. As an alternative to the most concentrated forms, producers can source supplemental feed premixes and mineral supplements that provide more manageable concentrations of medicated feed additives. For example, a complete mineral with 1,440 g/ton Bovatec will provide 200 mg at 4.44 oz. The University of Arkansas fact sheet FSA3012, Medicated Feed Additives for Beef Cattle, has recently been revised and renamed and is available as FSA3012, *Medicat*ed Feed Additives for Cow-Calf Stocker/Backgrounding Production Systems, through an Arkansas county extension office or online publication system at www.uaex.edu. The fact sheet provides information on medicated feed additives by approved use category.

While the VFD implementation does not go into full effect until Jan. 1, 2017, the rule becomes active in October 2015. The period between October 2015 and December 2016 allows the pharmaceutical industry time to address label changes while veterinarians, producers and feed mills begin navigating feed directive logistics and implementing record keeping practices.

For more information regarding medicated feed additives, veterinary feed directives or formulating supplements with medicated feed additives, visit with your veterinarian, feed supplier and local county extension agent.

-Source: Dr. Shane Gadberry is associate professor, animal science, with University of Arkansas Cooperative Extension. Reprinted with permission from BovineVetOnline.

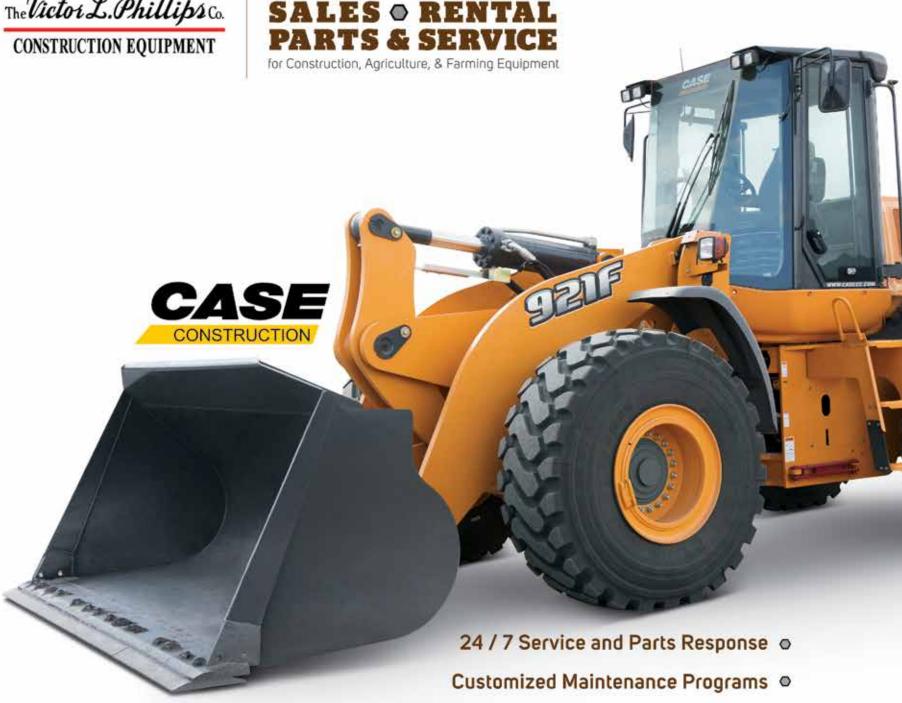
# MARK YOUR CALENDAR!

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# **ECONOMIC INDICATORS**

# The Real Reason Behind **Falling Prices**

# Look beyond fallen demand

year ago, talk around Athe coffee table had one rancher telling how he got \$3/ lb. for his calves and another said he sold his for more than \$1,500/head, a price he was sure he'd never live long enough to see.

They chatted more, reflecting on how much this market had improved in the last five years, and all agreed the consumer must really like beef. They sure kept buying it, so that thing economists call beef demand must be the real deal.

One of the old timers reflected on the 1980s and 1990s when demand was really taking a beating. It was a good thing the industry got the message and started producing a higher quality product, he said.

Yes, we all can agree that

tighter beef supplies from reduced cattle numbers, growing exports and steady domestic consumers kept buying, led to amazing cattle prices. Even more amazing, stayed consumers hooked on beef in the face of great buying opportunities for other proteins.

OOPS... 10 months later as summer gave way, a dramatic fall occurred: The 30 percent decline in fed cattle prices was of a magnitude not seen in at least 40 years, and there has never been such a great decline in dollar values.

Precipitous declines usually go with some catastrophe, like BSE in 2003 or a bust in the stock market like 2008, but nothing remotely analogous What initiated Mark's study to that occurred.

Had this nebulous thing beef called demand just fallen in the tank? As much as we have tried to understand it, we have to be honest and admit too many factors are involved to know everything about it.

Sure, we don't know everything about beef demand. Given a protein choice, consumers much prefer beef, willing to pay a much higher price for it even during periods of tight budgets (shown in graph).

We do know retail ad featuring has a great impact on beef sales (demand) and in spite of limited featuring in recent years, beef sales have stayed strong. We also know beef is still king at upscale restaurants, where demand is brisk, especially for the premium beef brands and grades.

So to find answers, let's look at what you likely did not know about beef demand.

Tanya Mark, marketing and Professor Mark also studied consumer studies professor

classification called hedonic consumption - which is such a strong desire for the pleasure that the consumer will buy

the product at the expense of

some other premium items they also desire. Fortunately, high-quality beef in general falls into that cat-

egory, which bodes well for the beef industry. Based on tonnage of Choice, Premium Choice and Prime, we're probably producing the highest quality beef ever.

the role of brands using a clas-

isfying dining experience.

Sustained demand for highquality beef is further supported by work at Kansas State University by ag economist Ted Schroeder and Lance Zimmerman, a current Cattle-Fax analyst. Their model tracks demand changes for Certified Angus Beef® (CAB) brand versus low Choice, showing in 12 years from 2002 to 2014, CAB demand grew 96.5 percent, compared to only 2.3 percent for low Choice.

After sharing that work at the recent CAB annual conference,

> the brand's president, John Stika noted record sales in 7 of 12 months in fiscal 2015. Amazingly, during that brutal decline in cattle prices this September, CAB experienced its highest sales volume ever for that month. Those 78 million pounds lifted CAB annual sales to a ninth record year, at 895 million pounds. As we experience these drastic price declines, let's keep some perspective.

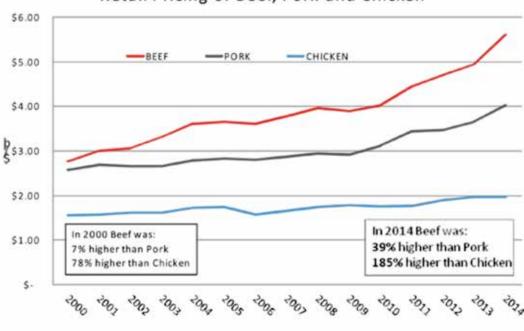
> From 2011 to 2015, the price of end meats increased from \$2.89 to \$4.19 (45 percent), middle meats \$6.39 to \$7.96

(25 percent) and grinds in ad features went from \$1.98 to \$4.99 (152 percent). Yet, the consuming public continued to buy beef at these record prices.

Bottom line: There is no evidence that consumer demand has waned. Retail stores will start running more beef ad features, and beef will reestablish more logical price thresholds.

—Source: Drovers CattleNetwork/ Certified Angus Beef





at the University of Guelph in Ontario, shared some recent research results that send a strong message to the beef industry.

was that a premium beef showed amazing brand growth during the 2008-09 recession while other consumer items suffered considerable declines in sales.

Her work showed the premium brand fell into a consumer sification called "cross-category indulgence." For example, if a shopper wants to buy a handbag of an elite brand but feels she cannot afford it, she will realize a smaller purse of the same brand will satisfy her desire for a pleasurable purchasing experience.

Using beef in that scenario, the consumer might really want a filet mignon, but realizes she can only afford a top sirloin but staying in the same brand category, they still have a sat-

# **MANAGEMENT MATTERS**

# Determining Calf Crop Percentage

# Greatest loss of calves to wean comes from cows not bred during the breeding season

Story By Rick Rasby

alf crop percentage might be the most important production calculation that a cow/ calf producer can record. The reason for this statement is that calf crop percentage has both an input and output component. Inputs include genetic selection, nutrition and management, management during the breeding season, management during the calving season and management from calving to weaning. The output component is reproduction and reproduction impacts total pounds of weight that is available to sell at weaning.

Percentage calves weaned of females exposed is the number of calves weaned based on the females that were exposed to the bulls to produce the calves that are being weaned. Mathematically, it is the number of calves weaned (numerator) divided by the number of females exposed to produce that calf crop (denominator) and this number times 100 to get it to a percentage [(# calves weaned/# cows exposed) x 100].

Sometimes, the challenge is that the numbers needed to do the calculation are collected more than a year apart, so good records are needed. For females that weaned a calf in October 2015, the number of females exposed would be the number of females exposed to a bull during the breeding season in 2014.

As an example, 300 cows were exposed to the bull, and 255 cows weaned a calf. Calf crop percent is 85 percent (255 calves weaned/300 cows exposed to the bull) x 100 = 85 percent).

Records indicate 37 cows had no calving records, 6 calves lost at calving and 2 calves were lost between calving and weaning. It is assumed the 37 head did not get pregnant during the breeding season because there was no record that they aborted.

Using these formulas, more information can be extracted from these records so that "weak links" in the production system can be identified.

- Pregnancy percentage is 87.7 percent ([(300 37)/300) x 100] = (263/300) x 100)].
- Calving percentage is 97.7 percent [(263 6)/263) x 100) = (257/263) x 100].
- Weaning percent is 99.2 percent [(257 2)/257) x 100 = (255/263) x 100].
- Multiplying pregnancy percent x calving percent x weaning percent should be close to 85 percent (.877 x .977 x .992 = .8499).

Cow reproductive performance might be evaluated by age group using the process described above. Some of the challenge is in how to account for pregnant females that enter and leave the herd during the

production cycle. Standard Performance Analysis (SPA) guidelines outline how to calculate production measures for the cow herd and how to account for pregnant females that enter and leave the herd. For more information, please see the SPA Calculations & Worksheet available on the National Cattlemen's Beef Association website

The greatest loss of calves to wean is due to cows not getting pregnant during the breeding season. Managing body condition so that spring-calving cows are in a body condition score of 5 is critical and impacts rebreeding performance during the next breeding season. Pregnancy rates for mature cows managed for body condition at calving should result in pregnancy rates of at least 90 percent or greater.

The reason for this discussion is that the equation for calculating breakeven cost equals total costs in the numerator over weaning weight x percent calf crop weaned in the denominator.

—Source: Rick Rasby is a beef specialist with University of Nebraska.



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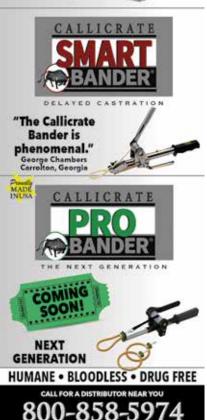
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# **PASTURE PLANNING**

# Fine-Tune Your Grazing Program

# Proper management promotes fall, winter grazing

Story By James Rogers

have always been fascinated **⊥** with animal behavior, especially beef cattle on pasture. They are selective grazers always in search for the highest quality forages. This explains why you see areas of lush grasses go ungrazed in pastures with light stocking rates and high forage availability. Even when we increase stocking rates up to mob grazing levels (1 million pounds of stock per acre), cattle still selectively graze. I've witnessed stocker cattle at a stock density of slightly more than a million pounds per acre be turned into a fresh paddock of native range in late June, quickly consume Basketflower heads, strip leaves off Johnsongrass and tall native grasses and trample remaining mature forage. Then, they look at us begging to go to another paddock. We tested Basketflower heads — crude protein (CP) was 17 percent, and total digestible nutrient (TDN) level was 72 percent. Samples from the paddock were tested for nutritive value prior to grazing. On average, CP was 8.4 percent, and TDN was 54 percent. Fecal samples collected from the cattle during grazing had an average CP of 11 percent and TDN of 65

percent. Obviously, the cattle knew what they were doing. The problem was forage quality availability, and they just could not consume enough of what they wanted to meet intake demands, and consequently protein and energy requirements, for a high daily gain.

This helps illustrate the problem we encounter with fall and winter grazing of perennial forages — forage quality availability vs. forage availability. If stocking rate is estimated based on a 12 month carrying capacity then, by grazing management and forage deferment, excess forage can accumulate for use after the growing season ends. The problem is carryover forage from early in the growing season is low in forage nutritive value though availability might be very good. For example, in December 2014, I tested several paddocks of bermudagrass that consisted of carryover spring growth. Forage availability was excellent, slightly below 5,000 pounds of dry matter per acre, but the average CP value was 5.52 percent, and TDN was 57.34 percent. I would expect cows grazing this type of for-

age to behave very similarly to the steers on native range discussed previously. Cattle would quickly select for the highest quality, trample the rest and look for somewhere else to go. Note that a supplement would be required to maintain body condition. Quality stockpiled forage is fresh fall growth; if stockpiled from fresh, fertilized fall growth, bermuda-grass can have crude protein values in excess of 10 percent. If you are in an area where tall fescue grows well, it, too, can have very good nutritive value well into late fall and early winter.

Now, how are you and your cows going to use accumulated forage for fall and winter grazing? Consider how well stockpiled forage will resist decomposition through fall and winter to determine order of grazing. Since cattle selectively graze, utilization of stockpiled forages might be lower than what the book values tell you. Keep this in mind as you manage both forage and cow condition. What appears to you as knee-deep abundant forage might appear to a cow as a pile of pulpwood.

All accumulated or stockpiled forages will lose dry matter following frost and through winter. The rate this occurs varies by species composition. Of the Southern Great Plains forages, a grazing order could be crabgrass, old world bluestems (OWB), native grass,

**CONTINUED ON PAGE 40** 



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# **MANAGEMENT MATTERS**

# **Breeding Season Do's, Don'ts**

# Set goals and evaluate your herd for breeding season success

Story By Lisa Henderson for Cattlemen's News

If your annual income is highly dependent on your calf crop, the first step to maximizing that income begins before the breeding season. Determine your goals and evaluate what you can do to better ensure that your herd has a successful breeding season.

Achieving a high pregnancy rate and a high calving success rate are obvious goals. However, both of those objectives depend on how well you manage the breeding season. Oklahoma State University Extension Beef Specialist Megan Rolf outlines the following tips for breeding season success:

# **Breeding Season Do's:**

- •Enlist the help of your veterinarian to administer a breeding soundness exam to all bulls before turning them out with your cows.
- •Consider pelvic measuring and reproductive tract scoring all your heifers. That will help predict calving difficulty and reproductive performance in heifers, and it will save

you some sleepless nights in the calving shed.

•Consult with a veterinarian about your herd health program. Make sure you have administered the proper vaccines at the appropriate times before breeding. Sick calves are unproductive, and their value is too high to risk preventable illnesses.

ing season. That will allow you to easily identify open cows for culling and create larger, more uniform groups of calves. Calves of similar age and size usually sell at higher prices at weaning and make better packages for backgrounding if you choose that option after weaning.

•Pay special attention to your bulls. Make sure they are in appropriate pasture condition and ready to go to work when they are turned out with the cows. If a bull is switching environments or will be on a vastly different nutritional plane, allow time for him to adapt to those conditions before the breeding season.

# Administer proper vaccines at the appropriate times before breeding season begins.

- •Spend time thinking about your production objectives and selecting the right bulls with the genetic potential to achieve those objectives. Consult with your seedstock provider. Many will visit your operation to view your cows and offer their recommendations about the types of bulls that best suit your needs.
- •Consider having a defined breeding season (45-60 days) and remove bulls after your specified breed-

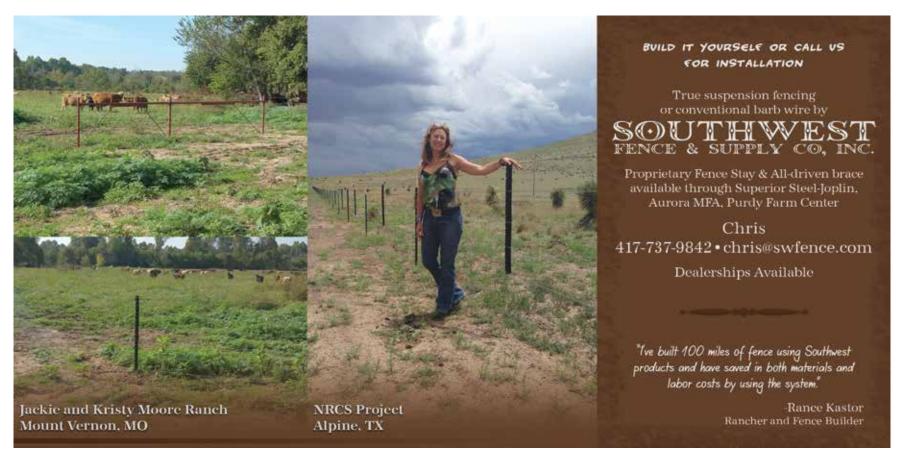
- •Bulls should receive prebreeding vaccinations similar to your cowherd.
- •Give your bulls fly control treatments and vaccinations for pinkeye and foot rot.

# **Breeding Season Don'ts:**

- •Don't wait until the last minute to make selection decisions or procure a bull.
- •Don't forget about the impact of heat stress on both bulls and females during

the breeding season. If the weather becomes exceedingly hot, sometimes the effects of heat stress, such as semen quality, are not noticed until several weeks after it first occurs. The result is a lower pregnancy rate.

- •Don't forget to keep more replacement females than you need to replace. Your heifer pregnancy rate won't match that of your mature cows. Always breed 10 to 20 percent more heifers than the number of cows you want to replace in your herd.
- •Don't give your bulls more work than they can handle with a male-to-female ratio that is too high. Younger bulls can't service as many cows in a short, defined breeding season as older, more mature bulls.
- •Don't make excuses for cows that were open last year or breed late. Those cows are reproductively inferior, and they often have the highest risk for being disease carriers.
- •Don't expect thin cows to breed. Good managers recognize middle-aged cows can cope with lower body condition better than young or old cows. It's key to recognize that if middle-aged cows have a low body condition, young and older cows probably do, too.



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# ON THE CALENDAR

# **Governor's Conference on Agriculture Set**

# Register now for Dec. 16-18 event

The 46th Governor's Confer-**⊥** ence on Agriculture is set for Dec. 16-18, 2015, at Tan-Tar-A Resort in Osage Beach, Missouri, and registration is now available online at www. agriculture.mo.gov. This year's theme is 'Agriculture: Tell Your Story.' The conference will take place Wednesday through Friday this year, which is different than in years' past. The program will include nationally recognized speakers, in-depth discussions and an agriculture tradeshow, all led by emcee Cyndi Young of Brownfield Ag

News. Covering the most important trends shaping our world between now and 2035, a presentation by Seven Revolutions will provide insight into agriculture's increasingly important role in society.

Session topics include a "State of the Industry" panel discussion among Missouri's agricultural commodity leaders, an update from Attorney General Chris Koster of recent agriculture-related court actions, a look at agriculture's impact on Missouri's major metro areas

and the next step in agriculture energy solutions. Friday afternoon's activities will be an opportunity to spotlight young leaders in agriculture and will highlight some of the outstanding youth making a difference in Missouri agriculture.

Thursday evening will include dinner and an auction raising money for Missouri agriculture's future leaders. The event culminates Friday evening with the Missouri Agriculture Awards banquet and entertainment by country music artist, and Missouri native, Chris Janson.

Conference registration is required. On-site registration is available during the conference. Information is available on the department's website, www.agriculture.mo.gov, and through the social media hashtag #MyFarmMyStory.

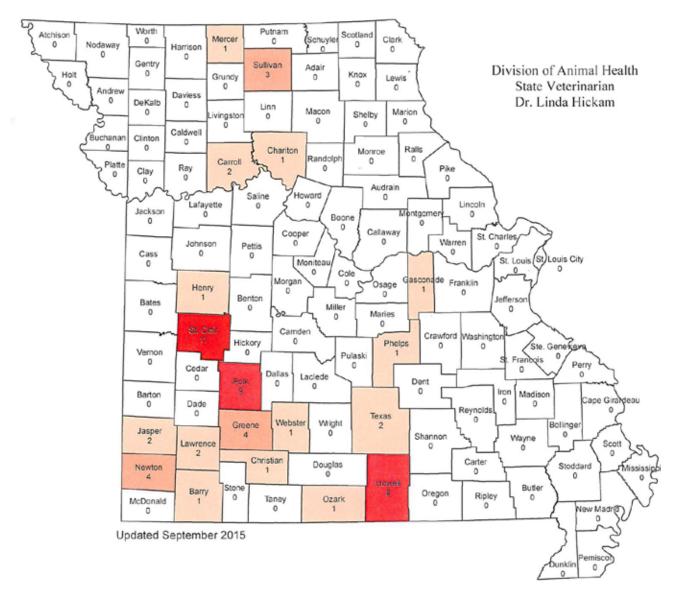
### FINE-TUNE FROM PAGE 38

bermudagrass and tall fescue. Take advantage of crabgrass early as it will rapidly deteriorate following a frost, and you will not be able to graze it for very long. Old world bluestem (OWB) is next. Nutritive value and utilization will be low, and don't expect to spend a lot of time on OWB following frost without cattle losing condition. Next is a tossup between native grass and bermudagrass. Native grass stands well following frost, but lower leaves will deteriorate and nutritive value will be low, which is why I try to use it ahead of bermudagrass. Cattle on standing native grass will leave stems behind or trampled. Native grass that is stockpiled for multiple years in a row will begin to have cool-season grasses develop in the sward over time. These cool-season grasses can be used in late winter and early spring to keep them from competing with native grass spring green-up. For this reason, I tend to recommend using a different area of native range for stockpile each year. Bermudagrass stockpiles well and can have very good quality (greater than 10 percent CP) if fertilized in the fall. Following frost, leaves will become brittle and leaf losses will occur as cattle move through. In areas where it is adapted, tall fescue stockpiles the best of the forages mentioned here. Its waxy leaves maintain quality through the winter, so its use can be delayed until other forages have been used. Although some dry matter loss will occur, nutritional value losses will not be major.

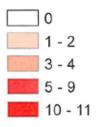
Fine-tune your grazing management by taking an inventory of forage mass and grab samples for forage nutritive value. Expect animal behavior and performance differences between carryover spring forage and true fall stockpiled forage. All of these forages will more than likely require some type of supplementation to meet animal nutritive requirements, but these can be based from the grab samples. Monitor cow body condition while on stockpile and make feeding adjustments as necessary.

—Source: This article is reprinted with permission from the Noble Foundation for Agriculture.

# Trichomoniasis Positive Bulls in Missouri Since Jan. 1, 2015



### Number of Positive Results





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# **MANAGEMENT MATTERS**

# Do You Have Enough Hay for Winter?

# **Calculating winter hay storage**

ru yo

42

To figure total pounds needed, multiply 51 animal units by 120 days by 30 pounds of hay per day. This equals 183,600 pounds of hay or 230 bales of hay needed (assuming the bales weigh 800 pounds each).

This is only an estimate of hay needed.

If it is apparent that feed supplies will be inadequate, begin examining management options and feed alternatives to most efficiently maintain the cattle operation.

—Source: University of Missouri Extension Ag Connection.

An important question to Base the number of animal ask yourself every year is units on 1 unit for a mature how much hay will I need to 1,000 pound animal, ½ unit get the herd through the win- for yearling cattle, and ¼ unit

er. The following is a good rule of thumb for determining your winter hay needs.  Start by estimating the hay available or left over.  Base your estimate on the veight of several bales. Adust your estimates for storage and feeding losses, especially f hay is stored outside.  Wext, calculate the number of animal units you will be feeding over the winter.	for ca eat a pound qualit fed ba Finall unit b hay fe An ex lows ( ing h herd)	alves. Each pproximate ds of aver y hay per dasis.  y multiply by days by the day.  cample wou assume 120 day, with the			
35 Cows	X	1	F	35	A THE STREET OF
10 Backgrounding Steers	X	0.5	=	5	
15 Replacement Heifers	X	0.5	=	7.5	CONTRACTOR OF THE SHAPE OF THE
8 Calves	X	0.25	±	2.0	AND THE PARTY AND AND ADDRESS OF THE PARTY AND
				7.2	
1 Bull	X	1.5	=	1.5	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN



NOVEMBER 2015 www.joplinstockyards.com

Vaccinations should be administered in the neck area following Beef Quality Assurance guidelines

# Administration Information: JRS recommends a good Write date of administration for each product used in appropriate area, month and day

vaccination protocol – use name brand vaccines & wormers

PRODUCT ADMINISTERED	STERED	JRS Calf	JRS 1	JRS Vac 45	JRS Vac 45	ac 45
		Vac Sourced	Weaned	Weaned Sourced	Non-Sourced	ourced
	List Product					
Vaccine Protocol	and Brand in this column	1 <sup>st</sup> Dose Date	1 <sup>st</sup> Dose Date	Booster Date	1 <sup>st</sup> Dose Date	Booster Date
Respiratory Virals		White Tag	Gray Tag	Tag	Orange Tag	Tag
1st Round MLV or Killed		×	×	×	×	×
Booster Dose MLV only						
Clostridial/Blackleg		×	×	×	×	×
Haemophilus Somnus (Optional)						
Mannheimia (Pasteurella)		×	×		×	
Parasite Control			×		×	
(Dewormer)						
Implant						

X indicates the vaccine is required and must be administered.

All males are to be castrated and all heifers are guaranteed "open". If any bull(s) are found, seller will be billed for the loss of the buyer; sellers any of bred heifer(s) will be given the option to take home the bred heifers or billed the loss after the re-sale of bred heifer(s)

PRODUCTS ADMINISTERED ACCORDING TO BQA GUIDELINES TYPES
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, also certify that the information on this form is true and accurate.

Signature of either OWNER/MANAGER OR VETERINARIAN IS REQUIRED

Signature of Owner/Manager /Veterinarian

# enroll Value

Check Protocol: Vac Sourced / JRS Calf / Weaned Sourced ☐ JRS Vac 45 Non-So ☐ JRS ourced

City Address Field Representative Owner/Manager RANCH/OPERATION INFORMATION (Please print) Name cattle will be sold under State Ζþ

Weaning Date, if applicable (mm/dd/yy)	Marketing Information	2
)lbs	Total Number of Head Enrolling	Ste
lbs luction	Weaning Date, if applicable (mm/d	d/yy)
lbs. tolbs	Approximate Marketing Date (mm/	dd/yy)
JRS Livestock Auction		
	Check Marketing Choice:	
	☐ JRS Live	

# Other Management Practice Information

Please

(date)	Castrated/spayed	ase check and date all that apply:
9	Dehorned_	t apply:
(date)		
(date	□Bunkbroke	
	Tank broke	
(date)		
day of Sale	□Guaranteed Open	

# ◆ PRODUCTS ADMINISTERED ACCORDING TO BQA GUIDELINES ☐ Yes

Location of where tags were purchased:

# Attach proof of purchase and return documentation and completed form 7 DAYS PRIO R TO SALE DATE to:

call Mark Harmon at 417-316-0101 or office 417-548-2333. JRS Value-Added Enrollment, P.O. Box 634, Carthage, MO 64836 or fax to 417-548-2370: For more info or questions please

Info is also available on our website: www.joplinstockyards.com

NOVEMBER 2015 **43** www.joplinstockyards.com

# MARKET WATCH

Avg Wt Price Range

242.50-300.00

222.50-275.00

217.00-278.00

205.00-246.00

170.00-231.00

173.50-213.00

167.50-214.00

180.00-209.00

174.00-210.00

180.00-196.00

170.00-202.00

176.00-185.00

166.00-206.75

166.00-188.50

171.00-195.75

159.00-192.00

185.00

180.00

# Joplin Regional Stockyards

Market Recap | October 2015 Feeder Cattle & Calf Auction | October 15,162 ● Last Month 13,018 ● Last Year 16,325

Avg Price

265.05

250.45

244.30

224.73

207.01 196.87

197.35

195.14

190.90

189.23

191.66

180.79

185.00 Full

180.00 Full

194.65 Calves

188.10 Calves

178.83 Calves

181.85 Calves

Video Markets from 10/1/15 - 10/26/15/ - 258 head.

Feeder Steers Medium and Large 1

327

375

429

475

521

575

617

625

671

665

727

706

774

765

807

816

866

949

**Head Wt Range** 

38

78

227

299

469

444

257

173

194

97

234

14

220

34

59

12

34

112

311-348

359-397

402-444

450-499

500-549

550-598

600-643

605-642

650-690

650-693

706-749

700-725

750-798

762-770

804-819

851-888

816

949

## Feeder Holstein Steers Large 3

Head	Wt Range	Avg Wt	Price Range	Avg Price
12	653	653	145.00	145.00
22	819-824	822	140.00-142.50	141.37
10	866	866	138.00	138.00

JRS Sale Day Market Phone: (417) 548-2012

Market Information Provided By Tony Hancock

Market News Hotline (573) 522-9244

Sale Day Market Reporter (417) 548-2012

Mo. Department of Agriculture Market News Service

Mondays (Rick Huffman) | Wednesdays (Don Kleiboeker)

# Feeder Heifers Medium and Large 1

	), ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	odiaiii a	iid Laigo i	
Head	Wt Range	Avg Wt	Price Range	Avg Price
11	238	238	232.50	232.50
66	305-349	337	220.00-257.50	236.51
65	368-393	383	201.00-225.00	213.45
230	400-445	425	172.50-217.00	199.03
498	450-499	477	176.00-225.00	192.93
355	500-549	529	165.00-197.00	186.19
327	550-598	567	160.00-196.00	182.11
185	601-648	630	159.00-196.50	182.48
52	600-628	608	171.00-184.00	178.01 Calves
135	652-697	681	157.50-195.00	181.57
27	651-699	682	167.00-180.00	173.15 Calves
192	701-749	728	160.00-191.00	177.68
171	757-799	769	165.00-184.00	178.70
135	801-838	818	147.50-178.00	166.67
11	1030	1030	146.00	146.00

# Feeder Steers Medium and Large 1-2

I CCu	CI Steels Wi	caraiii ai	ia Large i Z		135	801-838	818	147.50-178.00	166.67
Head 10	<b>Wt Range</b> 282-298	Avg Wt 293	<b>Price Range</b> 220.00-232.50	<b>Avg Price</b> 223.61	11	1030	1030	146.00	146.00
11	349	349	230.00	230.00					
117	352-398	374	200.00-235.00	213.85	Feed	er Heifers N	1edium a	nd Large 1-2	
194	403-448	426	188.00-235.00	213.93				•	Ava Drico
19	429	429	238.00	238.00 Thin		Wt Range	Avg Wt	Price Range	Avg Price
227	451-499	483	175.00-224.00	204.53	11	237	237	210.00	210.00
169	502-549	525	174.00-210.00	194.99	13	269-282	273	202.00-222.00	208.36
34	531-549	540	217.00-217.50	217.25 ValAdd	62	317-347	333	196.00-230.00	205.63
235	550-599	573	166.00-210.00	193.54	148	350-397	380	180.00-207.50	198.45
230	602-647	629	170.00-204.00	188.10	156	400-442	419	174.00-212.00	194.04
61	605-643	632	173.00-194.00	181.73 Calves	376	451-497	475	165.00-195.00	180.54
272	651-691	674	168.00-205.00	194.08	161	500-545	519	157.00-194.00	178.67
23	662-686	678	160.00-183.00	170.79 Calves	14	533-549	541	186.00	186.00 Yrlgs
288	701-746	723	171.00-194.00	187.49	203	550-597	567	164.00-187.00	174.48
29	712-728	719	165.00-181.00	173.14 Calves	151	610-649	632	170.00-183.00	178.05
16	722	722	204.00	204.00 Thin	29	624-628	626	170.00-174.00	171.66 Calves
402	750-797	781	165.00-189.50	186.24	159	650-695	666	160.00-186.00	178.12
10	785	785	173.00	173.00 Fleshy	22	689-695	693	165.00-168.00	166.78 Calves
87	804-844	817	178.00-192.00	184.12	72	710-746	727	150.00-179.00	174.55
97	852-899	874	165.00-183.00	178.95	107	751-798	757	167.00-181.75	179.44
19	926	926	184.00	184.00 Thin	70	806-849	822	168.50-174.00	169.98
16	1007	1007	170.50	170.50	25	855-890	877	125.00-166.00	153.58

# Tune in to the JRS Market Report



Monday 11:38 a.m. Wednesday 11:38 a.m.



Monday 12:15 p.m. Wednesday 12:15 p.m. Monday 12:40 p.m. Wednesday 12:40 p.m.





M-F 9:55-10:05 a.m.
(during break before AgriTalk)
M/W/F Noon Hour
(during Farming in the Four States)
T/Th Noon Hour (after news block)



Monday 12:50 p.m. & 4:45 p.m. Wednesday 12:50 p.m. & 4:45 p.m.



# **EVENT ROUNDUP**

### November

6 Special Video Sale Joplin Regional Stockyards, Carthage, Missouri FMI: 417-548-2333

6-7 Genetrust Brangus Sale Chimney Rock Cattle Co., Concord, Arkansas FMI: 877-436-3877

7 Pitts Angus Production Sale at the farm, Hermitage, Missouri FMI: 417-399-3131

7 Professional Beef Genetics Bull Sale Windsor Livestock Auction, Windsor, Missouri FMI: 888-724-2855

7 Maple Oaks Red Angus Herd Builder Sale Miller County Regional Stockyards, Eldon, Missouri FMI: 314-630-0332

10 Bowling Ranch Hereford & Red Angus Sale at the ranch, Newkirk, Oklahoma FMI: 580-761-9257

14 The Moser Ranch Bull Sale at the ranch, Wheaton, Kansas FMI: 785-396-4328

16 Green Springs Bull Test Sale Nevada, Missouri FMI: 417-448-7416

20 Show-Me-Select Replacement Heifer Sale Joplin Regional Stockyards, Carthage, Missouri FMI: 417-466-3102

20 LeForce Herefords Production Sale at the ranch, Pond Creek, Oklahoma FMI: 580-984-0015

21 12 p.m. Replacement Cow and Bull Sale Joplin Regional Stockyards, Carthage, Missouri FMI: 417-548-2333

21 Genetrust Brangus Sale Cavender's Neches River Ranch, Jacksonville, Texas FMI: 877-436-3877

21 Sydenstricker Genetics Angus Production Sale Mexico, Missouri FMI: 573-581-1225

21 Missouri Simmental Association Fall Harvest Sale Springfield Missouri FMI: 806-983-7226

23 Yearling and Holstein Steer Special Sale Joplin Regional Stockyards, Carthage, Missouri FMI: 417-548-2333

## **December**

1 Hay Production School Springfield, Missouri FMI: 417-881-8909

3 Hay Production School Forsyth, Missouri FMI: 417-546-4431

3 Value-Added Feeder Cattle Sale Joplin Regional Stockyards, Carthage, Missouri FMI: 417-548-2333

8 Hay Production School Springfield, Missouri FMI: 417-881-8909

Hay Production School Forsyth, Missouri FMI: 417-546-4431

12 American Gelbvieh Assoc. Cattlemen's Profit Roundup Embassy Suites KCI, Kansas City, Missouri FMI: 303-465-2333

15 Hay Production School Springfield, Missouri FMI: 417-881-8909

Hay Production School Forsyth, Missouri FMI: 417-546-4431

17 6 p.m. Replacement Cow and Bull Sale Joplin Regional Stockyards, Carthage, Missouri FMI: 417-548-2333

# Replacement Cow & Bull Sale

12 p.m. | Saturday

11.21.15

Joplin Regional Stockyards I-44 & Exit 22 | Carthage, Missouri

# **Expecting 1000 head. Early listing includes:**

Cargill Farms Complete Dispersal—15 black and black baldy heifer pairs; 5 black and black baldy first-calf heifers bred to Angus or Hereford bulls; 25 Angus and Red Angus cows, 5 years old to short and solid with calves weighing up to 300 lbs.; 25 Angus X Hereford cows, 6 years old to short and solid, bred in second stage to reg. Angus and Hereford bulls. Also, 1 reg. Angus bull from Buford Ranch, 3 1/2 years old, easy calver. FIELD REP: FRED GATES. PHONE 417-437-5055.

**150 First-Calf Angus Heifers**—Synchronized on May 8 to Victor 719. Due to calve early Feb. with 56 confirmed to Al, balance cleaned up with LBW Angus or Hereford bulls. Both bulls meet Show-Me-Select criteria. FIELD REPS: J.W. Henson, PHONE 417-343-9488 or Jackie Moore, PHONE 417-825-0948.

**21 Black Angus Pairs**—7 years old. Calves born in September out of Simmental bull. FIELD REP: TIM DURMAN. PHONE 417-438-3541.

**10 Black Angus Cows**—4 to 6 years old. Bred to Angus bulls. Start calving March 1, 2016. FIELD REP: JASON PENDLETON. PHONE 417-437-4552.

**85 Angus Bred Heifers**—Bred to easy-calving Angus bulls. Due Feb. 1, 2016 Heifers weigh 1,000 to 1,100 lbs. FIELD REP: DOC HASKINS. PHONE: 417-437-2191

**100 Angus Heifers**—Bred to easy-calving Angus bulls. One raising. Start calving Feb. 1, 2016. Heifers weigh 1,100 to 1,200 lbs. FIELD REP: DOC HASKINS. PHONE: 417-437-2191.

**10 Angus Heifers**—Bred in second stage to low birthweight Angus or Hereford bulls. FIELD REP: LARRY MALLORY. PHONE 417-461-2275.

**17 Black Cows**—4 years to short and solid. Spring calvers bred to black Limousin bulls. FIELD REP: J.W. HENSON. PHONE 417-343-9488.

**Lucas Cattle Co. Bulls**—3 yearling + Sim/Angus bulls. More information available sale day. FIELD REP: BAILEY MOORE. PHONE 417-540-4343.



Bailey Moore 417.540.4343

**Skyler Moore 417.737.2615** 





Jackie Moore 417.825.0948 JRS Office 417.548.2333

www.joplinstockyards.com

www.joplinstockyards.com NOVEMBER 2015 45

### CONSTRUCTION



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Al Service 25 Head or More





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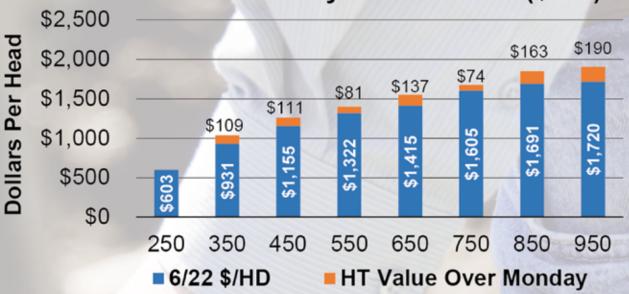




CattleFax

# THE PROGRAM AND TO SEE THE PROGRAM AND 


# Steer Health Track Advantage Over Previous Monday Prior to Sale (\$/hd)



\*\* Sale data is from the Joplin Regional Stockyards (JRS) June 25, 2015 value-added sale. \*\*

# Market Slide: Week of 6/22/15



\* Data taken from the CME August Feeder Futures Market for the week.\*

