

Smith Center rancher sees expanding opportunity with industry collaboration

By Kansas Beef Council

Beef producers are no strangers to adversity. They deal with Mother Nature, meat substitutes and industry misconceptions; however, they do not fight alone. We have allies in each other and in our agriculture checkoff counterparts. These partnerships amplify the Beef Checkoff programs that increase demand for beef.

Beef producer Philip

FDA releases antimicrobial report for 2020

The U.S. Food and Drug Administration's Center for Veterinary Medicine has published the 2020 *Summary Report on Antimicrobials Sold or Distributed for Use in Food-Producing Animals*.

The report shows that domestic sales and distribution of medically important antimicrobial drugs approved for use in food-producing animals decreased by 3% between 2019 and 2020. That is a 38% decrease since 2015, which was the peak year of sales. This suggests that continued efforts to support the judicious use of antimicrobials in food-producing animals are having an impact, the agency said.



Philip Weltmer, the 2021 Beef Improvement Federation Commercial Producer of the Year currently serves as co-chair of the Nutrition and Health Committee on the Cattlemen's Beef Board.

Weltmer is on the front lines, volunteering his time to represent Kansas producers on the Beef Checkoff. His family

owned Weltmer Livestock in Smith Center for 36 years, in addition to running a cow-calf and feeding operation. As a cattle-

man, Weltmer has been involved in the collection and contribution of funds to the Checkoff. Now he oversees the disbursement of funds by serving on the Federation of State Beef Councils.

The 2021 Beef Improvement Federation Commercial Producer of the Year currently serves as co-chair of the Nutrition and Health Committee. "The Nutrition and Health Committee is probably the largest research committee. We're seeing more need for private research," Weltmer said. False claims of red meat as a contributor to cancer and poor heart health continue to plague the beef community. Checkoff-funded and peer-reviewed research, like Beef in an Optimal Lean Diet and Beef in a Mediterranean Diet demonstrate clear evidence that red meat has a place in a healthy diet. Similarly, the American Academy of Pediatricians recommends beef for children as young as six months. "School lunch programs are based on those dietary guidelines and we're big believers that meat protein needs to be in front of our children," said Weltmer.

KSU Calving School to be held January 11 in Fairview

By David G. Hallauer, Meadowlark Extension District crops and soils/horticulture agent

The 2022 KSU Calving Schools are set, and the next one is just around the corner. Planned for January 11th at 6:00 p.m. at the Fairview Community Center (511 Front Street in Fairview), the programs are designed around the goal of increasing the number of live calves born when assistance is required. Using a life-sized cow and calf model to demonstrate the proper timing and use of calving equipment, KSU Extension veterinarian Dr. A.J. Tarpoff will discuss the entire calving process, including what's normal, when to intervene, and how to manage a difficult birth. He'll also share how you can develop a system to support the lifetime health and performance of the calf following birth.

The program starts at 6:00 p.m. with an evening meal. To reserve your meal and handout materials, please RSVP by January 7th by contacting the Brown County Extension Office at (785) 742-7871. Additional information or questions can also be directed to any Meadowlark Extension District Office.

China lifts embargo on Brazilian beef

China has agreed to resume imports of Brazilian beef following more than three months of suspension due to two atypical cases of Bovine Spongiform Encephalopathy (BSE) which were discovered in Brazil.

"The certification and shipment of animal protein to China will be normalized and can be resumed as of today," Brazil's Ministry of Agriculture announced recently.

The embargo had been in effect since Sept. 4. Since then, the World Organization for Animal Health (OIE) has reaffirmed the Brazilian status of "insignificant risk" for the disease.

China is Brazil's top beef export customer, and Beijing said it would resume imports of Brazilian boneless beef products from cattle less than 30 months old.

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EARLY CONSIGNMENTS FOR JAN. 7

- 130 blk bwf str & hfrs, weaned 9/15, 1 rd shots, 500-750 lbs.
- 90 choice blk & bwf str & hfrs, weaned Nov. 1, 2 rds shots, 550-700 lbs.
- 75 choice reputation blk bwf str & replacement quality hfrs, long weaned, 2 rds shots, 600-800 lbs.
- 55 blk, few Char cross str, 825-875 lbs.
- 55 blk, few Char cross hfrs, 775-825 lbs.
- 36 Hinkson genetics blk str, 30, and hfrs, 6). Spring & Fall shots, weaned Oct. 15, 500-700 lbs.

- 65 choice blk & Red Ang cross str & hfrs, weaned Oct., 2 rds shots, green, 500-600 lbs.
- 80 Angus str & hfrs, green, 2 rds shots, long weaned, 500-650 lbs.
- 50 rwf, bwf, few blk str, weaned Oct. 21, 2 rds shots, 550-600 lbs.
- 30 Red & Red Baldy str, 3 rds shots, long weaned, wormed, poured, 550-700 lbs.
- 4 Red & Red Baldy hfrs, 3 rds shots, long weaned, wormed, poured, 400-450 lbs.
- 65 choice reputation Ang & SimAngus str & hfrs, long weaned, 3 rds shots, 600-850 lbs.
- 38 Home raised Angus & F1 BWF, out of BJ Angus bull, str & hfrs, weaned Nov. 26, 3 rds shots, 550-700 lbs.



SPECIAL STOCK COW AND BRED HEIFER SALE WED., JAN. 12 • STARTING 11:00 AM



BRED 1ST CALF HEIFERS

- 30 big blk SimAng cross hfrs bred to LBW blk bull to start calving Feb. 15.
- 18 F-1 bwf 1st calf OCV hfrs, pelvic measured, Pregguard 10, bred LBW Ang bulls May 8 - June 28 for 60 day calving period.
- 70 choice South Dakota origin Red Ang 1st calf OCV bred hfrs. Bred to Tanner, Kniebel, & Pieper 13-17 calving ease LBW Red Ang bulls for Feb. 1 calving for 75 days. Current on all breeding shots, plus 1st rd Scour Bos.
- 40 big choice Blk 1st calf hfrs bred to Mytty In Focus & Final Answer Ang bulls for Feb. 1 calving for 75 days. Current on all breeding shots, plus 1st rd Scour Bos.
- 8 big Char 1st calf hfrs bred Red Ang for Feb.-March calving.
- 10 big choice bwf 1st calf OCV hfrs bred to LBW Ang bull for Feb. - March calves.
- 40 mostly blk, few bwf 1st calf hfrs bred Angus bulls for Feb. 15 - March calves.
- 15 blk Sim 1st calf hfrs out of Dikeman LBW Sim bulls, bred LBW Dikeman Sim bulls to start calving March 1.
- 73 Big choice Red Angus 1st calf OCV hfrs, bred Beckton LBW EPD Red Angus bull for March 5, 35 day calving period per ultra sound preg check. Current on all shots, 1100#
- 37 big Red Angus & Red Baldy 1st calf hfrs, bred LBW Red Angus 9 Mile Franchise -2.5 BW EPD bull for Feb. 10 calving. 1100#
- 13 Ang 1st calf OCV hfrs, bred LBW Ang bulls, to start calving Feb. 1. Spring shots/ poured.
- 20 Home raised choice reputation Fink Genetics Angus 1st calf OCV hfrs, AI bred May 3 to Fitz Steller LBW Angus bull, cleaned up Barretts OverDrive for 70 days. Freeze branded, 1 rd scourguard.
- 15 big fancy Angus 1st calf OCV hfrs, 8 are AI bred to Connealy Concord, balance cleaned up Connealy Concord Son. AI bred due Feb. 1, balance due mid March. Hfrs have had breeding shots plus 1st round ScourGuard.

BRED 2ND CALF HEIFERS

- 25 blk bwf 2nd calf hfrs bred Ang for Feb.-March calves, cows all worked.
- 8 choice bwf OCV replacement hfrs, pelvic measured, all shots, 700-750 lbs.
- 60 blk, blk Baldy, Char (5), Red Baldy (4) cows, 6 yrs w/ mid July-Nov. crossbred calves by side. Ang & SimAng bulls turned in Dec. 1. Calves all worked.
- 8 blk cows, 3-8 yrs w/ late Fall calves by side.
- 25 blk bwf cows, 3-5 yrs w/ Ang sired Nov.-Dec. calves by side. Cows & calves all worked.
- 80 blk & bwf cows, 3-5 yrs, bred Ang for Feb. & March calving. Cows worked & poured.
- 20 blk cows, 6-10 yrs, bred for March-April calving.
- 60 Mostly Northern origin Blk & Red cows, 3-5 yrs, with 30+ day blk or Char cross calves by side. Calves double vaccinated & worked, running back with Red Angus bulls.
- 7 big Red & Red Baldy cows, 3-4 yrs, bred LBW Red Angus 9 Mile Franchise -2.5 BW EPD bull for Feb 10 calving.
- 90 nice big mostly blk, balance Red Angus or Baldies heavy Spring calving cows, 3-6 years, bred to Char or black Angus bulls..
- 15 Red Ang cows, 3-5 yrs, bred blk Ang for Feb.-March calves, cows all worked.
- 20 blk bwf cows, 4-6 yrs, bred Ang for Feb.-March calves, cows all worked.

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EARLY CONSIGNMENTS FOR JAN. 14

- 240 blk str & hfrs, 2 rds shots, bunk broke, weaned 75 days, 500-700 lbs.
- 60 reputation Angus & Red Sim str, long weaned, 2 rds shots, 650-800 lbs.
- 45 choice blk bwf str, weaned Nov. 1, 2 rds shots, bunk broke, 650-750 lbs.

- 70 mostly blk Ang, few Red Ang str & hfrs, weaned 90 days, 2 rds shots, bunk broke, 600-700 lbs.

EARLY CONSIGNMENTS FOR JAN. 21

- 50 rwf, bwf, few blk hfrs, weaned Oct. 21, 2 rds shots, 450-600 lbs.

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Vipan Kumar, a weed scientist with Kansas State University, started hearing about feral rye concerns in central Kansas wheat fields from the day he arrived at the Agricultural Research Center in Hays in 2017. Four years later, he is completing a three-year research project studying this weed and how Kansas growers can take advantage of newer herbicide and varietal options to keep rye in their whiskey and out of their wheat fields.

"Feral or volunteer rye is a troublesome winter annual grass weed species in Kansas," said Kumar, K-State assistant professor of weed science, in his research proposal. "The presence of feral rye may result in dockage and other losses in wheat quality."

Kumar's research was supported by the Kansas Wheat Commission, the Kansas Wheat Alliance and the Kansas Crop Improvement Association. The project details the biology and management of feral rye, downy brome and jointed goat grass in Kansas wheat production. A specific focus was the effectiveness of Aggressor (quizalofop-p-ethyl) herbicide on controlling feral

rye and other weed species in wheat fields planted to quizalofop-resistant wheat varieties (CoAXium Wheat Production Systems).

"The ultimate goal of this project is to improve the sustainability and economic viability of Kansas wheat production by developing cost-effective management strategies for winter annual grassy weeds," the proposal stated.

Why rye is a problem

Feral rye is tricky to control, partly because its growth cycle mirrors wheat. Kumar and his team evaluated germination rates of feral rye on different temperatures, helping researchers better understand how the weed develops and when herbicide applications would be the most effective.

"It pretty much matches with what wheat requires in terms of germination," Kumar said. "Feral rye has the same growth cycle winter wheat has. When we plant our wheat in September or October, that is the time it can start coming. Just along with the wheat, it vernalizes and goes dormant and then greens up in the spring."

The presence of feral rye in a wheat field, however, causes several prob-

lems. Previous research indicated the economic threshold for feral rye is five to six plants per square yard. At that mark, up to 14 percent yield reduction has been observed in northeastern Colorado. Furthermore, contamination with feral rye seed increases wheat dockage and reduces the milling and baking characteristics of wheat flour.

And feral rye is a persistent pest that does not disappear after a single growing season.

“Feral rye seeds have very low dormancy,” Kumar said. “A single plant can produce 600 seeds, according to the literature. Less than one percent of those seeds are dormant and can be persistent in the soil. So, seed bank management is very important if you are going to look for long-term management of feral rye in your field.”

Testing herbicide control for feral rye

Kumar also observed wheat growers did not have effective herbicide options for feral rye control. Growers with rye issues often tried using the Clearfield wheat system, which combines the use of Beyond (imazamox) herbicide with a winter

wheat cultivar containing the gene that confers tolerance to this herbicide. While effective for several annual grass and broad-leaf weed species, growers reported mixed results for feral rye without clear markers of successful timing or rates.

But a newer herbicide-wheat varietal system from Colorado State University sparked Kumar's interest. CoAXium wheat is herbicide-tolerant wheat that contains the AXigen trait, which has resistance to a different class of herbicides — namely Aggressor (quizalofop-p-ethyl).

Kumar decided to put both herbicides to the test. Starting in 2019, his team collected feral rye samples from 40 to 50 different fields, tricky but necessary to do at wheat harvest.

"We went to go and collect some of those feral rye survivors in the field at the time of wheat harvest because feral rye retains most of its seed at harvest," Kumar said. "It doesn't shatter, and it's taller than wheat, so you can easily see from the road that this field has an issue, and this other field doesn't have an issue."

Kumar brought collected feral rye lines to the greenhouses in Hays and started screening them. Several feral rye populations were collected and tested using different rates of Beyond and Aggressor — at, below and above the recommended application rates. In the study, feral rye was completely killed with a field-use rate (8 fluid ounces per acre) of Aggressor plus an adjuvant at 21 days after treatment.

“What we found here in our greenhouse conditions is that our populations are very sensitive to Aggressor, which is a relatively new chemistry for wheat folks,” Kumar said. “But there were a lot more troubles with Beyond, as the majority of those popula-

tions had survivors in the greenhouse test.”

Careful application needed for feral rye control to success

As with any herbicide, following recommended application rates and timing is critical to successful weed management. The label recommended application rate for Aggressor is between eight and 12 fluid ounces per acre for a single application, but Kumar suggested wheat growers with feral rye issues aim for more than the minimum rate to get the most effective control.

"Normally, the recommendation is eight ounces in the fall, followed by eight ounces in the spring — two applications will clean up your field," Kumar said. "But, for feral rye, we have seen that eight ounces are not enough. You have to go with 10 to 12 ounces per acre in each application."

Kumar also recommended using adjuvants with Aggressor to help with better absorption of the herbicide by the plant, including a non-ionic surfactant (NIS) in the fall and methylated seed oil (MSO) surfactant in the spring.

"The adjuvant helps to correct hard water issues as well as help in spreading out the herbicide molecules on the surface of those wheat plants," he said. "It also helps that herbicide to penetrate into the plant."

Timing is also important. Kumar emphasized waiting to spray in the fall until wheat is at the three-to-four leaf stage, where other winter annual grasses are growing as well. Then, in the spring, he cautioned growers to wait until full green-up for a spring application.

"You have to be careful. If those plants are dormant, this herbicide will only kill actively growing plants," Kumar said. "So, we have to wait for our

downy brome or feral rye or other grasses to become green and actively growing. Then we should apply our aggressive treatment in the spring. Otherwise, spraying too soon can result in escapes."

Finally, a word of caution. Aggressor is not appropriate for all wheat varieties. Kumar pointed out graduate student work from Oklahoma State University that showed a 90 percent loss when Aggressor was applied to non-resistant wheat varieties. Remember, Beyond and Aggressor are two separate classes of herbicides, so not even Clearfield wheat will tolerate an application of Aggressor.

Kansas growers do, however, have access to nearly a dozen varieties of hard red winter (HRW) wheat lines that are part of the CoAXium wheat production system, meaning they are resistant to Aggressor. These varieties are not as high-yielding as other HRW varieties, but K-State researchers are introducing the same tolerance genes — which originated from Colorado State University — into higher-yielding germplasm best suited for Kansas growers.

Overall, the right combination of variety, herbicide, timing and rate can pay off for Kansas wheat growers — both for controlling a tricky weed and regaining yield.

"If you have an effective treatment in the fall or spring, we've seen 17 to 20 percent yield benefit with split applications in the fall and spring by controlling heavily infested feral rye in wheat," Kumar said.

Learn more about the feral rye management research project at https://eupdate.agronomy.ksu.edu/article_new/management-of-feral-rye-with-coaxium-wheat-production-system-in-kansas-357.



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Competitiveness of U.S. agriculture industry depends on infrastructure investment

The interconnectivity of different transportation modes and need for reliability in both transportation and broadband infrastructure emerged as key ingredients for continued competitiveness of the U.S. agriculture industry during a virtual webinar hosted by the St. Louis AgriBusiness Club on Oct. 7, 2021. The event provided a unique opportunity for dozens of congressional staffers to hear directly from leaders in the key areas of transportation, technology, agribusiness and farming about the importance of infrastructure investment for the ag industry. More than 100 attendees gathered online for View of Infrastructure from the Ag Coast of America, which featured a comprehensive discussion on how infrastructure programs can best be implemented to benefit the transportation sector, enhance innovation and technology, and address climate initiatives.

Stephen Censky, Chief Executive Officer of the American Soybean Association (ASA), which is based in St. Louis, moderated the session and set the stage by providing some stats related to soybean movement in the U.S. He stated that soybean farmers export about 50% of the crop produced in this country. On average, he said soybeans travel for the first 15 miles on roads and bridges in order to get to an export elevator, and then they are transported by rail or by barge on the inland waterways and then on to various ports and harbors, underscoring the importance of the entire transportation network for the movement of this single ag product.

"Agriculture is the largest user of the freight transportation system in the nation, representing 27% of all freight ton miles, and it's expected to increase 23% over the next 20 years," said Mary Lamie. "During peak season for the agribusiness industry, the efficient and reliable transportation of crops is critical to maximizing yield."

Lamie is executive vice president-multi modal enterprises for Bi-State Development and head of the St. Louis Regional Freightway, which maximizes multi modal infrastructure funding opportunities through public and private partnerships, working closely with all modes of transportation, manufacturing, and logistics companies, along with the agribusiness industry and departments of transportation.

Lamie added that nearly half of all U.S. crops and livestock are produced within a 500-mile radius of the St. Louis region, where four interstate highways serve its strategic location in the center of the nation, providing a one-day drive or less to Midwest and Southern regions. The rail industry also provides a cheaper mode of transportation for the region.

"We are home to six national or class-one rail carriers that provide access to three West Coast ports and two East Coast ports, and from these ports of export, agricultural customers around the world are served," Lamie said. "It may be a surprise to some, but our location in the interior of the country, combined with our rail network to these ports, provide us global connectivity for the ag industry, providing advantages to farmers."

The St. Louis region also is recognized internationally as the Ag Coast of America due to having the highest level of barge handling capacity for ag and fertilizer products anywhere along the Mississippi River. Lamie noted that the number one infrastructure project for the barge industry is actually a historic rail bridge, the Merchants Bridge, which is currently undergoing a \$222 million replacement, because in order to have competitive barge rates, they need competitive rail rates. She cited it as a great example of the importance of multimodal connectivity and flexibility and how having the infrastructure to support all modes of transportation is key to compete in that global market.

Attendees also heard from Jason Gertken, direc-

tor of Global and North America Corn for Bunge, and president of its joint venture EGT, LLC. Headquartered in the St. Louis region, Bunge is a 200-year old agribusiness and food company that is one of the world leaders in the total global trade selling quality commodity products around the world. The company operates in 40 countries with more than 23,000 employees and 300+ facilities. Gertken zeroed in on a stretch of the Mississippi River from Minneapolis to St. Louis, which spans 800 river miles over which there is a 404-foot drop in elevation. Dozens of locks and dams, many of which were built back in the 1930s, help barges to navigate this section of the river, and their successful operation is critical to the nation's supply chains.

"When one of these go down, essentially there is no other way for the grain to get down the river," said Gertken. "So, keeping these lock and dams well-maintained and operable significantly reduces supply chain costs, which significantly reduce end user costs and helps benefit the farmer at the other end of the chain as well."

Gertken also highlighted how efficient and less carbon-intensive movement of products by barge is, providing an example of one barge being loaded at the Bunge SCF facility in Fairmont City, Illinois. A single barge equates to about 15 jumbo hoppers that would be pulled by train or 58 large semi-trucks. "When you're sending a barge downriver, you've got one tugboat that'll pull it downriver. And it usually has 15 barges in there - that's about a little over two full unit trains of a hundred cars, or about 870 large semis," Gertken said. "So, a barge is extremely efficient at moving grain over a long distance at a low fuel cost... and it has significantly less CO2 produced. This is also something that is extremely advantageous to the U.S."

The advantages of America's commitment to innovation was also spotlighted during the part of the conversation led by Ben Johnson, vice president, Programs at BioSTL, which has laid the foundation for St. Louis' innovation economy with a comprehensive set of transformatory programs leveraging the region's medical and plant science strengths.

"In America, we have pioneered creating new crops, creating new traits, higher yields, more efficiency. For us to continue to be a global leader, we need to continue to invest in the infrastructure that makes that possible," said Johnson. He called attention to various funding mechanisms, specifically highlighting not only the importance of the current infrastructure bill, but also the U.S. Innovation and Competitiveness Act (USICA), a bipartisan bill that has moved out of the U.S. Senate and is being considered in the House. "USICA, a bipartisan act really aimed at cementing our competitiveness against China, would significantly scale the National Science Foundation and a lot of the investments it's making in better fuels, better energy, a lot of which depends on new crop traits - biodiesel, soy diesel, et cetera," Johnson said. "I think passage and funding of USICA as a way to really enhance the competitiveness we've all talked about, is critical."

The need to enhance American competitiveness was also top of mind for Dean Campbell, a fifth-generation owner/operator on his family's farm Agritech Acres, Inc., which produces corn, soybeans, and wheat near Coulterville, Illinois, about 50 miles southeast of St. Louis.

"That competitive advantage that we have with other countries - the mention of Brazil being a competitor with us - we're losing that competitive advantage because they are building railroads, they are working on their waterway systems, they're building roads," said Campbell. "Our roads and infrastructure, that transportation infrastructure has been there - some of it well over a hundred years - and we need to maintain that at an increasing rate

of what we have. There's a lot going on, but we need more."

Beyond the transportation infrastructure, Campbell also highlighted the need for open markets and investment in broadband, which can be lacking in rural areas. "It's just frustrating that we can't put in that infrastructure that's usable out here. We have a tremendous amount of data to be looking at, to be transporting out for analysis."

Adam Jones, a family farmer in Lincoln and St. Charles counties in Missouri where he raises soybeans and wheat and has a small cow-calf operation, echoed Campbells' concerns about the lack of broadband access in rural communities.

"If these kids can't have fast Internet, they're not able to compete in today's world and they're going to move to the city, and we can start seeing some of these rural towns just disappear off the map because of today's remote workplace environment," said Jones. "And if they're not able to work from their rural areas, then rural America's at an extreme disadvantage."

Jones also called attention to the need for an improved flood protection system on the upper Mississippi River, north of Cairo, Illinois, which has a dramatically different flood protection system than on the lower Mississippi River and in recent years has experienced much more frequent flooding, much higher water levels and much faster flooding than before.



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"We really need to work towards a fair and equal protection system up here on the upper Mississippi," said Jones. "As we continue to have these terrible floods, each one does not only impact farmers, but they're blocking highways, they are going over rail and shutting down railroads, washing out railroads, taking out bridges and things like that. So, it's not just an impact on the farmers, it's a major impact on everybody in all these communities."

Jones also echoed Gertken's thoughts on the need for investment in the aging locks and dams north of Alton, Illinois, providing an example of how barges can move through the 1200-foot Lock and Dam 25 in Alton twice as fast as the 600-foot Lock and Dam 26, where the barge tows have to be divided in half to move through, and then put back together.

During the question and answer portion of the session, panelists were asked how they see infrastructure investments enhancing innovation and addressing climate challenges, and Johnson

weighed in.

"Investments in ag innovation are critical to not only addressing our competitiveness in the food market, but addressing our global climate challenges as well. Those investments range from basic science research at the Department of Energy and USDA and NSF, to investments in the infrastructure that make that happen - labs and greenhouses to test the products," said Johnson. "There are gaps in turning these ideas into new companies, so investments that help de-risk the technology so the private market can really take them through to consumers, those are really critical investments."

Gertken added that a great example would be the renewable fuel standards that was enacted a number of years ago that basically generated a whole industry that now uses a third of the U.S. corn crop. "That caused investments in the rail lines and investments in all the little towns; there's over 120 ethanol plants across the U.S. now," Gertken said, adding that we're

now seeing in the biodiesel sector what we saw in the ethanol sector ten years ago. "There's a lot of growth potential. Bunge is making active investments to be part of that and be part of the renewable diesel and the bio diesel part of the world. It's massively growing and we foresee that happening over the next handful of years."

Looking to the future with the congestion currently plaguing the West Coast ports in mind, Lamie said she hoped to be back with the panelists in a few years adding to the dialogue about cleaner and ever more efficient ways of moving freight by highlighting advancements that will have been made in the Container-On-Vessel initiative that would have patented new vessels transporting anywhere from 1,800 to 2,000 containers at a time from the St. Louis region to the Gulf of Mexico. "It's an alternative that would support the supply chain. And I think that's one of the innovative things that we need to do as a nation, is to think differently on how we can better compete."

HERINGTON LIVESTOCK COMMISSION CO.

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11:30 AM
12/29/21 SALE RESULTS - TOTAL HEAD: 299

| — TOP STRINGS OF EACH CLASS — | | | | HEIFERS | | | |
|-------------------------------|--------|--------|----------|---------------------------|-------|-----|----------|
| CLASS | HEAD | WEIGHT | PRICE | Ramona | 4 blk | 559 | \$146.50 |
| STEERS | | | | | | | |
| Ramona | 4 blk | 443 | \$182.00 | — COWS / HFRRTS / BULLS — | | | |
| Lincolnville | 58 blk | 906 | \$154.00 | | | | |
| Lincolnville | 57 blk | 906 | \$154.00 | | | | |
| Lincolnville | 60 mix | 917 | \$153.00 | | | | |
| Lincolnville | 59 mix | 902 | \$153.00 | | | | |

EARLY CONSIGNMENTS FOR JANUARY 5, 2022

• 60 blk mostly strs, 900-925#

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Although complete name, address and phone number need not appear in your ad, we must have this information for our records.

Name: _____ Phone #: _____

Address: _____ City: _____ State: _____ Zip: _____

TIPS: Phone numbers & hyphenated words count as one word. Words separated by a / count as two.

WRITE YOUR AD HERE



RATES AND DISCOUNTS

FIGURE YOUR COST HERE:

RATE: 70¢ a word.

Number of words: _____ @ 70¢ each

Cost for one week: _____

Multiply one-week cost times number of weeks you want ad to run.

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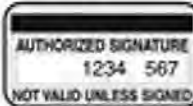
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REMINDERS

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- NO REFUNDS!
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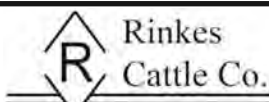
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Kansas 4-H charges into new year with plans for more in-person activities

The leader of the Kansas 4-H Youth Development program praised the efforts of the volunteers, professionals, youth and families across the state in getting some parts of the organization back to near-normal operations in 2021.

But Wade Weber said the coming year promises to be even better as the state's largest youth organization eyes more in-person activities.

"As I look back on 2021, I think of the many ways in which young people, volunteers and professionals re-purposed to do their best," he said. "At the end of the day, what we saw was that these people showed the resiliency that really has become a hallmark of Kansas 4-H – and will continue to be as we move forward."

Weber pointed to a couple events – the Kansas State Fair in Hutchinson, and the Kansas Youth Leadership Forum at Rock Springs Ranch – as examples of how 4-H managed to safely hold in-person events and provide youth opportunities for growth.

"These were opportunities to engage young people and help them be in that creative process of youth-adult partnerships," Weber said.

He added that the new year already shows promise for continuing in-person activities. The 4-H Horse Panorama is scheduled for Jan. 28-30 in Hutchinson, and the 4-H dog project will be holding judges training and certification training Jan. 28-30 in Wichita.

In February, Weber said, 4-H will host Citizenship in Action at the Kansas State Capitol during the weekend of President's Day (Feb. 20-21), and Kansas has been approved to send a delegation to Citizenship Washington Focus in Washington, D.C. during the first full week of June (the deadline to register is Jan. 15).

Youth and volunteers interested in those or other events are encouraged to visit the Kansas 4-H website, or visit their local Extension office for information.

4-H scholarship applications now available

Weber also said that Kansas 4-H is now accepting applications for numerous scholarships available to youth. Many of the scholarships are available from donors, he said, including the prestigious Vanier Scholarship offered through the Kansas 4-H Foundation.

The application form is available online. The deadline to apply is March 1, 2022.

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Nitrogen dilemma Q&A

**By Dale Strickler,
GreenCover Seed**
“What can I plant to make nitrogen for next year's corn?”

With the recent spike in the cost of nitrogen fertilizer, and even higher prices expected going forward, people are asking if there is something they can plant to biologically produce nitrogen fertility prior to next year's corn crop. Most people are aware that there are bacteria that live on legume roots that can produce available nitrogen fertility, but most people are unsure just how effective biological nitrogen fixation can be to reduce their needs for purchased nitrogen fertilizer. So here are some important questions to be answered:

“How much nitrogen can be made available through biological means? Can we produce enough to reduce or eliminate the need for purchased nitrogen fertilizer?”

The amount of nitrogen that can be produced by a legume cover crop is directly related to the amount of biomass the legume can grow. The amount of biomass the legume can produce depends on an infinite number of factors: soil moisture, temperature, mineral nutrient availability, soil compaction, and so on. So it is impossible to predict in advance exactly how much nitrogen a legume can produce. However, we can rely on the past performance of legume cover crops to get an idea of the potential. Summer annual legumes fix more nitrogen per day of growth than winter annual legumes because there is more sunlight and more favorable temperatures; but winter annual legumes can have more days of active growth due to their ability to grow over fall, winter and spring combined. The more days of active growth, the more biomass that can be produced, and the more biomass, the more nitrogen. In general, legume biomass runs about 3% nitrogen as an average. Thus, a ton of legume biomass will contain about 60 pounds of nitrogen. It is common for a summer annual legume to produce about 70 pounds of biomass per day of active growth, or about a ton per month if there is sufficient moisture. Obviously, then a summer annual legume planted in May and allowed to grow until frost will make more nitrogen than a summer annual legume planted in July and allowed to grow until frost. Winter annual

legumes, if planted in fall, usually make most of their growth (and thus nitrogen) in spring, and the longer they are allowed to grow in spring, the more biomass and more nitrogen they can produce. A winter annual legume terminated in early April will not produce as much nitrogen as one allowed to grow until May, and one terminated in May will not produce as much as one allowed to grow until the first of June, although there is seldom any point in allowing a cool-season legume to grow any longer than that as growth slows tremendously once summer temperatures begin to climb above 80F. In our plots at Bladen last year, winter annual legumes planted Oct 1 and terminated June 1 produced as much as 4.2 tons of biomass containing 240 total pounds of nitrogen. Obviously, if we had terminated on May 1, the total N would have been less than this amount.

“How available is this nitrogen to the next crop?”
The most important factor to realize when answering this question is that the nitrogen in terminated legume biomass is completely unavailable to plants until it is decayed by microbes. In other words, the microbes sit at the table first, and the plants get the table scraps. So how much do the plants get? It depends on the decay rate, which depends on the microbial activity. Microbial activity increases with warm temperatures and requires an optimum balance of soil moisture and soil oxygen. Also, the amount of nitrogen tied up or released upon the decay of the residue depends upon the carbon to nitrogen ratio, which is another way of expressing protein content. The carbon content of residue remains constant through the life of a plant, while the nitrogen content drops with maturity. As nitrogen content (and protein content) drops, the ratio of carbon to nitrogen increases. Residue with a high carbon-nitrogen ratio (or low protein) will decay very slowly, and during the decay of low protein material the microbes are starving for nitrogen and will tie up any available nitrogen, leaving little for plants to use; this is why using a low protein-containing cover crop like mature rye or sorghum-sudan prior to a nitrogen hungry crop like corn can result in a nitrogen deficient crop. Legume residue, on the other hand, tends to maintain high protein content

even into maturity, and of course, the nitrogen fixation increases the total amount of nitrogen in the residue. With legume residue, typically half the total nitrogen contained in the residue becomes available to the following crop. What happens to the other half? It becomes part of soil organic matter, and ordinarily, half the remainder becomes available each succeeding year. So for example, if a residue contains 240 total pounds of nitrogen, then the first year will have 120 available pounds, the second year will have about 60 pounds available, the third year will have about 30, and so on.

“I am in a corn-soybean rotation, can I plant something after soybean harvest that will make all the nitrogen needs for 200-bushel corn before I plant corn as soon as soil temperatures reach 50 degrees Fahrenheit?”
No. Next question.

“Okay, since the answer to the last question was “No,” let's be a bit more realistic. Here is a better question: How can I take advantage of biological nitrogen fixation to reduce my fertilizer needs?”

Okay, this is a better question than the last one. First, let me explain just why the answer to the previous question was “No.” After soybean harvest and prior to planting corn early, there just aren't enough warm days to grow enough legume to fix much nitrogen. We need more days of plant growth to accomplish the task. How can we do that? To begin with, let us play with the corn planting date a bit. Do you have to plant the first week of April? Or can you delay that planting date until later, say in early May? If that is the case, then we can use the warmer temperatures and longer daylight hours of April (compared to earlier in the spring) to grow more legume biomass than we can by killing the cover in early April. This can dramatically increase the amount of nitrogen fixed by a winter annual legume, such as winter peas, hairy vetch, crimson clover, or balansa clover. If nitrogen production is particularly valued, such as with organic farming where alternate sources of nitrogen fertility might be very expensive and hard to acquire, then allowing the winter annual legume to grow as late as June might be desired. In this case, it is possible to produce over 200 pounds of total nitrogen, which equates to around 100 pounds per acre of

available nitrogen. While considerable, this isn't enough in most cases to maximize corn yield, and the corn will usually require some supplemental nitrogen. But it definitely helps. But wait! If, let's suppose, you have been cover cropping for a few years, you not only have nitrogen being released by the cover crop you just terminated, you also are getting nitrogen released from last year's cover crop, plus nitrogen from the cover two years ago, three years ago, and so on. Add all these up, and you might just get very, very close to having enough nitrogen to meet the needs of high-yielding corn. This is a compelling reason to incorporate cover crops as a routine practice in your cropping system; the nitrogen fertility benefits of cover crops, like many other cover crop benefits, accrue over time. The longer you cover crop, the more benefit is achieved.

Another strategy to increase the number of days which are occupied by legumes is to begin the growth of legumes earlier than prior to soybean harvest. Of course, aerial seeding into soybeans prior to harvest will gain an additional two or three weeks of growth, but in order to really make an impact, it might be worth considering (for a multitude of reasons) getting out of the corn-soybean rotation and including a year of winter cereal to create a three-year rotation. This allows the planting of a summer annual legume (such as cowpeas, lablab, sunn hemp, or mung beans) right after cereal harvest in the summer and which can still be followed by a later planting of the cover crop including winter legumes in the fall to create a relay race of nitrogen fixation. Such a sequence can realistically provide enough nitrogen to completely meet the needs of a high-yielding corn crop, as well as bring other benefits to the soil and following crops. Research and farmer experience both demonstrate that extending the length of a crop rotation from two years to three years increases the yield and profitability of all the crops in the rotation by a wide margin. Though the cereal grain itself may not be as profitable as a crop of corn or soybeans, by allowing the insertion of a warm-season cover crop and increasing the yield of the other crops in the rotation the profitability of a three-year corn-soybean-winter cereal rotation including cover crops is far better than a two-year corn-soybean

Grass & Grain, January 4, 2022
rotation. Another three-year rotation that is worth exploring where cereal grains do not perform well is the corn-soybean-cattle rotation which includes a full year of pastured cover crops in between soybeans and corn. (See our article on this rotation in the seventh edition of the *Green Cover Seed Soil Health Resource Guide*, available at www.greencover.com)

However, the most effective way to provide biologically derived nitrogen fertility in a crop rotation is to incorporate a perennial pasture sod with a generous dose of legumes in the pasture mix. It is well documented that corn following a terminated sod of pastured grasses, forbs, and legumes will produce maximum yield without the need for nitrogen fertilizer. The inclusion of a pastured sod in a crop rotation historically has been referred to as ley farming and was once considered essential for the maintenance of high crop yields. If someone is interested in a crop rotation that can achieve maximum crop yields without purchased nitrogen fertilizer, this is worth learning about.

“Can I graze my legume cover crop and still assume a nitrogen credit?”

Most of the nitrogen ingested by a grazing animal will return to the field in manure and urine, but it will not be uniformly distributed, it will be concentrated in little circles across the field and will likely not benefit every plant in the field. The degree of defoliation is also important to answer this question. Proper grazing management should dictate that no more than about half the biomass of a cover crop is removed by grazing; as you begin to exceed 50% removal, the cover crop will no longer be performing the essential functions of a cover crop, such as protection of soil from raindrop impact and solar baking, and production of root exudates to feed microbes. Additionally, animals forced to graze plant stems instead of leaves will perform poorly and will often lose weight. A properly grazed cover crop may still have a decent nitrogen credit, while the same cover crop grazed to the ground will offer little nitrogen credit. It is best to assume a grazed cover crop to have less nitrogen credit than an ungrazed one (maybe 50-75% depending on the degree of grazing pressure and the uniformity of manure and urine deposition), but the long term soil benefits of grazing are going to be better than not

Page 19
grazing due to the magical properties of manure, and the positive impact of grazing on cash flow is undeniable.

“Is there any other way to fix nitrogen other than with legumes?”

Yes. The nitrogen fixation that occurs through symbiotic bacteria that live on the roots of legumes is the best known natural nitrogen fixation process, but it isn't the only one. There are nitrogen-fixing organisms that live freely in the soil unassociated with plants, and yet others that live in the rhizosphere of many plants (most prominently warm-season grasses), and others that live inside the vascular system of plants. There is almost always a small population of these organisms in our cropland soils, but since they are suppressed by the use of water-soluble nitrogen fertilizers, they are usually in very low abundance. Our Bi-Azo inoculant includes two of these nitrogen-fixing bacteria (*Azotobacter* and *Azospirillum*) and this inoculant can be used to rapidly restore a working population of these nitrogen-fixing organisms at very low cost. These bacteria do not fix nearly as much nitrogen as the *Rhizobium* bacteria on legume roots, but they do add to the total nitrogen fixed by a diverse cover crop mixture by enabling the nonlegume cover crops to make some additional nitrogen. Bi-Azo does not fit in every cropping situation; in a field heavily fertilized with synthetic nitrogen, these organisms will produce little if any nitrogen. However, Bi-Azo can be quite valuable to increase the amount of total nitrogen produced by a diverse cover crop that includes grasses, or for inoculating a nitrogen dependent crop like corn or sorghum that is receiving most of its nitrogen needs from carbon-based sources such as decaying cover crop residue, compost or animal manure.

In summary, it is possible to dramatically reduce our dependence on purchased nitrogen fertilizer, but it may take some modification of our planting dates or crop rotations to completely sever our addiction to synthetic nitrogen. Also, although we realize nitrogen production is important, don't get too focused on legumes and forget to include grasses and forbs into your mixture as well, because a diverse mixture will bring far more benefits in both the short and long term than a legume monoculture.

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WELCOME TO G&G — A RURAL NEWSWEEKLY

Grass & Grain, a farmers’ newsweekly, has been published in Manhattan, Kansas for over 60 years. The G&G community looks to the Tuesday publication for timely, accurate information.



Vegetable Varieties

The garden catalogs are filling up the mail box. On the cover are new varieties to grow for the 2022 garden. Best-tasting, earliness, crispness, unique color are some of the attributes to these crops. They all sound like the best vegetables ever.

One of the unique aspects of gardening is getting to experiment. Trying some different plants each season is one of the joys of gardening. Occasionally, one of the experiments becomes a mainstay in the garden.

New and experienced gardeners may be interested in the K-State Garden Hour session on 'Vegetable Varieties for Bountiful Harvests.' Please register for this free Zoom Webinar at ksre-learn.com/KStateGardenHour. Sedgwick County Horticulture Extension agent Rebecca McMahon will give you the tools you need to make

educated decisions about which vegetable varieties to try in your garden. Learn the differences between heirlooms and hybrids, decipher plant descriptions and determine which varieties will provide a more bountiful harvest.

This and all future gardening topics are presented on the first Wednesday of the month beginning at noon. Get registered before noon on January 5th. These sessions are recorded for viewing later when not able to participate at the presenting time. Past and future sessions are made available on the registration webpage.

K-State Research and Extension's publication on *Recommended Vegetable Varieties* is a good resource on making growing decisions. Several of my yearly planting varieties comes from this list, which is available online and at the office.

Each gardening location is different. Some of the suggested varieties haven't done as well for me. A vegetable that is not on this list that I plant every year is the "Yard Long Bean." It is productive and pest-free for me.

Gardening season can start in January if you like to start your own onions from seed indoors. Get some onion and other variety suggestions for your 2022 garden from K-State Research and Extension.

You can find out more information on this and other horticulture topics by going to the K-State Research and Extension website at www.ksre.ksu.edu. And you contact Gregg Eyestone at the Riley County office of K-State Research and Extension. Gregg may be contacted by calling 537-6350 or stopping by 110 Courthouse Plaza in Manhattan or e-mail: geyeston@ksu.edu

Registration open for International Livestock Congress in Houston

The 2022 International Livestock Congress will be held in conjunction with the Houston Livestock Show and Rodeo on March 2-3 in Houston. Experts will address key post-pandemic challenges that will impact the current and future livestock industry,

including:

Climate impact on livestock operations.

Water sustainability, mitigation of methane and carbon credits.

Governmental regulations impact on current and future livestock operations.

Challenges from the anti-livestock and alternative plant protein industries.

Supply chain disruption, increased processing facilities and national security.

To register, visit <https://theisef.com/registration/>

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Applications for Wildfire/Storm Relief Funds due January 31

Kansas producers affected by recent wildfires and severe storms need to complete an application to be considered for relief funds from the Kansas Livestock Foundation (KLF). The deadline for

completed applications is January 31, 2022. Questions on the application ask about livestock and fence lost, grazing acres burned and veterinary costs to treat sick and injured animals.

Applicants do not have to be KLA members. KLF has a proven process to equitably distribute donated funds. The application is available here or by calling the KLA office at (785) 273-5115.

Farmers' Market and Direct-to-Consumer Virtual Workshop Series planned

The Kansas Department of Agriculture and K-State Research and Extension will offer virtual workshops January 31-February 4, 2022, to assist farmers' market vendors and managers, and also for those wanting to sell food products directly to consumers. The workshop series includes four online Lunch and Learn sessions, followed by a half-day virtual workshop. Some K-State Research and Extension offices will be offering in-person watch parties for the February 4 half-day workshop.

"Over the past two years, we've seen an increase in people's enthusiasm for locally sourced food, and these workshops will address common questions and concerns for farmers and small businesses who are embracing these opportunities to reach local consumers," said Londa Nwadike, food safety specialist with K-State Research and Extension and the University of Missouri. "It's also important for farmers to understand certain legal, safety and financial parameters before choosing to sell either directly to the consumer or at a farmers' market." In 2021, 89 farmers' markets were registered with KDA's Central Registration of Farmers' Markets.

Dates and topics for each Lunch and Learn online session are as follows:

Monday, Jan. 31, noon to 1 p.m.: Food Safety for Value-Added Food Products

Tuesday, Feb. 1, noon to 1 p.m.: Sales Tax, Food Packaging, and How to Care for your Certified Scales

Wednesday, Feb. 2, noon to 1 p.m.: Meat and Poultry, Kansas Value Added Meats Lab

Thursday, Feb. 3, noon to 1 p.m.: Accepting EBT/ SNAP & Double Up Food Bucks

The half-day virtual workshop on Friday, Feb. 4, 8:30 a.m. to 1:00 p.m., will cover topics such as How to Market your Market and Booth, How to Identify Common Legal Risks, Senior Farmers' Market Nutrition Program, Vegetable Production, From the Land of Kansas program, and resources available from KSRE. Keynote speaker Brian Coppom, Colorado Department of Agriculture, will also be discussing Best Practices for Business Success when it comes to farmers' markets.

KDA's weights and measures program will offer free scale certification with a paid registration to an online workshop.

Registration for the January/February virtual workshops is now open. The cost is \$5 per partic-

ipant. Register at www.fromthelandofkansas.com/FMWorkshop.

For more information, contact Janelle Dobbins, KDA's From the Land of Kansas marketing manager, at 785-564-6759 or fromthelandofkansas@ks.gov. The workshops are funded by the Kansas Center for Sustainable Agriculture and Alternative Crops, the Kansas Sustainable Agriculture Research and Education Program, and the Kansas Department of Agriculture.

KDA is committed to providing an environment that enhances and encourages economic growth of the agriculture industry and the Kansas economy. Kansas farmers' markets not only provide a fresh food source, but also stimulate the local economy. The Kansas Ag Growth Strategy has identified training for small companies via workshops as a key growth outcome for the specialty crop sector. The farmers' market/direct-to-consumer workshops will provide education through partnerships to help make Kansas farmers, ranchers and agribusinesses more successful.

USRSB joins Trust In Beef program

The U.S. Roundtable for Sustainable Beef (USRSB) joins the Trust In Beef program as a founding partner and technical advisor, according to a press release. Trust In Beef is a new effort to empower beef producers to accelerate the adoption of their sustainability journey and provide consumers with real-life proof of the continuously improving environmental performance of American beef. Trust In Beef launched in Fall 2021 and is supporting 200,000 beef producers in accelerating continuous improvement in environmental performance while ensuring that consumers see and hear real-life examples of producer environmental stewardship. For more information about Trust In Beef, visit www.trustinbeef.com.

CHECK US OUT ON

GRASS & GRAIN

JC LIVESTOCK SALES INC.
Wednesday Sale, Hogs NOON • Cattle 12:30 PM

Light sale receipts for December 28 & 29.
Stocker and feeder cattle were selling steady to a touch softer depending on flesh weaned or off the cow.

| | |
|--------------------------|--------------------------|
| TOP BRED HEIFERS: | TOP BUTCHER COW: |
| Bred Heifers | \$73.50 @ 1,710 LBS. |
| 11 Ang (2 yrs) @1610.00 | |
| Bred Cows | TOP BUTCHER BULL: |
| 5 blk (7-8 yrs) @1350.00 | \$98.00 @ 2,145 LBS. |

The Langvardt family and employees want to thank our valued customers and friends for your business in 2021. We look forward to serving your livestock marketing needs in 2022 and beyond.

Happy New Year!



Watch online with cattleusa.com (Tab J.C. Livestock Sales)
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CLAY CENTER LIVESTOCK SALES INC.
Cattle sales Tuesday, 11:00 AM.

Light sale receipts for December 28 & 29.
Stocker and feeder cattle were selling steady to a touch softer depending on flesh weaned or off the cow.

| | |
|--------------------------|--------------------------|
| TOP BRED HEIFERS: | TOP BUTCHER COW: |
| Bred Heifers | \$73.50 @ 1,710 LBS. |
| 11 Ang (2 yrs) @1610.00 | |
| Bred Cows | TOP BUTCHER BULL: |
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The Langvardt family and employees want to thank our valued customers and friends for your business in 2021. We look forward to serving your livestock marketing needs in 2022 and beyond.

Happy New Year!

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Date: 12/29/21. Total Head Count: 1,129.
Cows: \$47-\$69; Bulls: \$79.50-\$88.

| | |
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| BULLCALVES | 5 Char.....561@170.00 |
| 3 blk.....730@134.00 | 4 bkbw.....553@168.00 |
| HEIFERS | 3 bkbw.....580@168.00 |
| 14 mix.....439@166.00 | 4 blk.....595@167.00 |
| 15 bkbw.....530@159.00 | 3 mix.....615@165.00 |
| 4 blk.....591@155.50 | 15 mix.....613@164.50 |
| 11 mix.....574@152.00 | 12 mix.....615@164.50 |
| 5 mix.....596@151.00 | 15 bkbw.....632@164.50 |
| 3 blk.....600@150.00 | 3 blk.....625@164.00 |
| 3 mix.....613@147.00 | 5 blk.....674@158.50 |
| 7 mix.....673@147.00 | 4 blk.....649@158.00 |
| 6 blk.....673@145.50 | 4 blk.....660@155.50 |
| 4 bkbw.....695@145.50 | 6 mix.....696@155.00 |
| 3 blk.....615@145.00 | 6 blk.....732@159.00 |
| 7 bkbw.....649@141.00 | 12 blk.....720@158.00 |
| 13 blk.....856@144.00 | 7 bkbw.....701@156.00 |
| 3 blk.....828@138.00 | 5 blk.....758@156.00 |
| 6 blk.....912@135.00 | 3 blk.....740@153.50 |
| 4 bwf.....1006@132.00 | 6 bkbw.....722@153.00 |
| STEERS | 12 mix.....811@159.00 |
| 3 mix.....412@204.00 | 209 mix.....832@159.00 |
| 13 mix.....426@202.00 | 21 mix.....853@159.00 |
| 5 bkbw.....453@199.00 | 72 mix.....891@158.00 |
| 4 mix.....418@151.00 | 49 mix.....800@157.00 |
| 20 mix.....518@186.00 | 74 mix.....842@157.00 |
| 3 blk.....520@184.00 | 104 mix.....876@156.85 |
| 4 mix.....540@180.00 | 15 mix.....882@155.00 |
| 24 mix.....544@178.00 | 85 mix.....968@157.25 |
| 14 bkbw.....591@172.00 | |

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• 5 heavy bred cows & pairs running age.
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• 45 blk str & hfrs, 60 days weaned & 2 rds shots, 500-600#
• 62 blk & bwf str & hfrs, 75 days weaned & 2 rds shots, 600-700#
• 20 blk & Red str, longtime weaned & 2 rds shots, 750-800#
• 50 blk str & hfrs, 750-850#
• 65 blk & Red str, 825-875#
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WIBW 580 - 6:45 A.M. Thurs; KVOE 1400 - 6:30-6:45 A.M. Thurs. & Fri.
To see more consignments go to: emporialivestock.com

NCBA reflects on 2021 policy campaigns, forecasts 2022

Recently, the National Cattlemen's Beef Association (NCBA) policy team convened to summarize their efforts on Capitol Hill in 2021. NCBA focused on producer profitability throughout the supply chain working on key issues such as current market dynamics, sustainability and climate, and WOTUS.

"We're continuing to reiterate to the adminis-

tration that we need to diversify and regionalize packing capacity to create new capacity in areas that are underserved," said Ethan Lane, NCBA vice president of government affairs. "We have a tremendous amount of demand right now—both nationally and internationally—that we need to capitalize on."

Lane said the NCBA's 2022 agenda includes ad-

vancing price discovery options to make sure producers are able to choose "the best marketing method for their cattle, rather than a government mandate telling them how to market their cattle."

NCBA said it is pleased by the difference in how grazing and cattle production is being treated in the policy conversation in Washington following the release of the industry's

sustainability goals that include a climate net neutrality by 2040.

"In previous administrations, we've always been thought of as a threat or an impact," said Lane. "We're now being embraced as a climate solution."

Furthermore, the United States Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers published a

rule in the Federal Register in early December, initiating updates to the definition of the waters of the United States (WOTUS) that reflect the pre-2015 regulatory definition.

The proposed rule comes following a June 2021 statement made by the Biden administration, detailing plans to repeal the Trump administration's Navigable Waters

Protection Rule (NWPR) promulgated under WOTUS in 2020. New regulations defining federally protected waterways under the Clean Water Act were then announced in November by the EPA and the Army Corps of Engineers. NCBA has launched a public relations campaign to demonstrate the WOTUS rule's impact on agriculture.

Global shipping container issues continue for meat exporters

U.S. meat and poultry exporters continue to face unprecedented pressure caused by a global shortage, or displacement, of shipping containers. The issue is made more complicated by ocean carriers' alleged unfair practices.

"Containers returning to Asia empty isn't a new phenomenon," says Dan Halstrom, president and CEO

of the U.S. Meat Export Federation (USMEF). "But the frequency has increased recently due to labor shortages, long turnaround times at U.S. ports and persistently strong demand for consumer goods that need to be moved from Asia to the United States. This situation seemed to be easing somewhat in the early summer, but that was short-lived. Obtaining containers and securing

vessel space is a challenge for exporters."

Legislative proposals and an effort by the White House to ease the issue is underway, but U.S. meat and poultry exporters are not exactly finding comfort. The current situation remains complex, causing concerns among analysts and conflicting export outlooks within the industry.

South Korea halts Canadian Beef imports

South Korean officials are seeking further information before removing a temporary suspension of Canadian beef, following the discovery of a case of atypical bovine spongiform encephalopathy (BSE) in Canada, according to the Canadian Food Inspection Agency (CFIA).

CFIA reported the case to the World Organization for Animal Health (OIE) recently and has responded to South Korea's request in order to help lift the temporary suspension. The agency also has kept other trading partners apprised of the situation, and none other than South Korea has indicated they are considering trade actions.

USMEF presents opportunity for U.S. beef in Beijing

The U.S. Meat Export Federation (USMEF) partnered recently with an importer/distributor in northern China to introduce new cooking concepts with U.S. beef and pork that are growing in popularity across the southern regions of the country.

With funding from USDA's Agricultural Trade Program and the National Pork Board, USMEF and Beijing Salate Trade Company hosted the Autumn Chef's Table to introduce U.S. beef and pork to local chefs and offer new menu ideas to current and potential foodservice customers. Yakimiku and Korean barbecue are growing in popularity in many regions of Asia including southern China, where underutilized U.S. cuts are often used on these menus.

USDA announces more supply chain support

USDA Secretary Tom Vilsack announced another \$100 million in federal loan guarantees under the new Food Supply Chain Guaranteed Loan Program; the guarantees are intended to help foster private investment in processing and food supply infrastructure, the agency said in a news release.

This funding announcement follows the Biden administration's September announcement about the steps it is taking to address concentration in the meat-processing industry. It adds a new commitment of \$100 million for guaranteed loans on top of the previously announced \$500 million investment to expand meat and poultry processing capacity.

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Market Report - No Sale last Thursday due to holiday.

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Cattle Auction- Every Tuesday at 11:00 a.m.
Hog/Sheep/Goat Auction- Every 3rd Saturday
Horse/Tack Auction- Every 2nd Saturday

Sat., Jan. 8th - Horse & Tack Sale
Tues., Jan. 11th - Calf/Yearling Special
Sat., Jan. 15th - Hog/Sheep/Goat Sale
ALL WEIGH COWS & BULLS SELL AT THE END

Beatrice Livestock Sales

SPECIAL BRED COW & HEIFER SALE
THURSDAY, JANUARY 13, 2022 • 11:00 AM

BRED HEIFERS:

- 41 Blk 1st Calf Bred Hfr, Bred Flat Iron Blk Ang, Pelvic Measured, Vacc & Scour Guard, Calve Feb 5
- 12 OCV Blk 1st Calf Bred Hfr, AI Bred Select Sires Ehance Blk Ang, Vacc, Calve Feb 1
- 15 Bwf 1st Calf OCV Bred Hfr, Bred Nichols Blk Ang, Pre-Breeding Vacc & Preg Guard 10, Pelvic Measure, Calve Feb
- 15 Blk 1st Calf OCV Bred Hfr, Bred Cross Diamond Red Ang, Pre-Breeding Vacc & Preg Guard 10, Pelvic Measure, Calve Feb
- 13 Blk 1st Calf OCV Bred Hfr, Bred Tegtmeier Hereford, Pre-Breeding Vacc & Preg Guard 10, Pelvic Measure, Calve Feb
- 15 Red-Rwf 1st Calf OCV Bred Hfr, Bred Tegtmeier Hereford 01R, Pre-Breeding Vacc & Preg Guard 10, Calve Feb
- 30 Blk OCV 1st Calf Bred Hfr, Bred Klein Blk Ang - for 45-Days, Vacc & Scour Guard, Calve Jan 21
- 25 OCV Red Ang 1st Calf Bred Hfr, AI ABS Red Ang Finished Product Bred, Zoetis Vacc, Calve Feb 15
- 35 OCV Red Ang 1st Calf Bred Hfr, Bred Red Ang Sons of Redemption & Premier, Zoetis Vacc & Scour Guard, Calve Mar 1-April 20
- 50 Bwf 1st Calf Bred Hfr
- 30 Blk 1st Calf Bred Hfr
- 120 OCV Bwf F-1 1st Calf Bred Hfr, AI Bred Herbster Ang Game Changer #371, Ultra-Sounded, Pelvic Measured, Vacc & Scour Guard, Calve Feb 1
- 30 F-1 Bwf 1st Calf Bred Hfr, AI Bred Rippe Gelb DBRG Mr. Nevada, Pelvic Measured, Dbl Vibrio Lepto- Scour Guard & Poured, Calve Feb 1
- 30 Blk 1st Calf Bred Hfr, AI Bred Rippe Gelb DBRG Mr. Nevada, Pelvic Measured, Dbl Vibrio Lepto-Scour Guard & Poured, Calve Feb 1
- 7 Blk 1st Calf Bred Hfr, Bred Schoen Red Ang, Calve Feb-Mar

BRED COWS:

- 19 (Heldt Based) Blk-Bwf Bred Cows, 5-7 Yr Old, Bred LHT Blk Ang or Weers Blk Ang, Calve late Feb (Dispersal)
- 20 Blk & Red Ang Bred Cows, 5 Yr-Short Solid, Bred Hereford, Calve Mar 1
- 16 Cert Red Ang Bred Cows, 3 Yr Old, Bred SRA Red Ang, Vacc & Scour Guard, Calve Feb 7
- 200 (DISPERSAL) Blk Bred Cows, 4 Yr-Short Solid, Bred Blk Sim, Vibro-Lepto Vacc, Scour Boss, Calve Feb 17

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S.T. 11:00 A.M. Expecting 5000 hd

Listings: many front enders

165 Ang & blk (135h-30s) NI N Risse & 21 Bar genes not topped.....575-675#
..... Leo Goss

150 Ang & blk NI NHTC hfrs breedable..... 500-600# Leroy Morrison

95 .Ang Littau genes- hfrs not topped..... 550-775# Gary Travnick

60 .Ang (30s-30h) NI B.V. hfrs not topped N Risse & Half Box V sired ..700-800#
..... Kuxhaus Farms

59 .Ang & blk NI hayfed only hfrs not topped700-850# Howard Schmidt

537 Ang & blk strs NI got a great look 425-600#.....Arabia Ranch

340 rd Ang (255) & blk strs NI..... 500-750# Keith & Cody Grage

230 Ang strs NI HR yrlds..... 750-950# Cory Rust

170 Ang & blk strs NI 1ld at 800# 600-800# Shawn & Rod Klein

255 blk, blk-x (175s-80h) N Risse & Raven sired..... 600-825# Levi Mosher

160 blk strs NI 2 lds..... 500-625# L & C Cattle Co

150 blk, bwf strs NI..... 550-700# Brad & Travis Mundorf

100 Ang strs NI NHTC Littau genes 600-750# Randy & Justin Klein

100 Ang strs NI..... 600-700# Brett Galbraith

155 blk & Ang strs 1ld @ 675#/1 ld @ 75# 675-750# Vandermay Cattle & Grain

100 Rd Ang strs 550-650# Bart Uhlir

300 blk, bwf (45 rd) (200h-100s) NI... 450-600# Red Water Rn

230 blk, blk-x (1 rd) Marcy genetics... 500-650# Fischer Cattle Co

210 Ang & blk NI (140s-70h) Hall Ang sired.....575-700#.... Tim & Tammi Krueger

185 Ang & blk NI Hall Ang sired..... 500-650# Bill & Vicki Knoll

190 blk, bwf (110s-80h)..... 450-650# Judd Schomp

115 blk (59s-56h) NI..... 450-575# Randall Priest

70 .Ang strs NI rugged- good hair..... 700# Matt Vandermay

76 .blk strs top of 350 700-750# Sunny Slope Rn

90 .blk (48s-42h) 550-625# Hayland Cattle Co

40 .Ang strs hayfed 600# Kevin Vandermay

60 .blk NI 525-675# Melvin & Mel McIntosh

55 .blk & angus 450-550# Leroy & Kate Songer

50 .blk & Ang NI 525-650# Chad Kaltenbach

35 .blk & Ang (29s-6h) 500-700# Gumm & Metcalf

23 .blk 350-400# The Dam Ranch II LLC

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For complete listing visit our website: www.valentinelivestock.net

Analysts contend McDonald's, Beyond Meat plan big for 2022

McDonald's is planning a major expansion of its plant-based burger with Beyond Meat in the United States in 2022, according to two Wall Street analysts. The companies began testing the "McPlant" patty in eight McDonald's U.S. locations in November. Those restaurants have

been selling enough of the sandwiches, as many as 70 per day, to warrant an expansion of the trial, the analysts said.

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*****NEW STARTING TIME*** 11:00 AM**

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DEC. 30: Paul & Norma Lueske Farm Retirement Auction, Horton KS

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BQA seminar to be presented at Cattlemen’s Congress

Cattle producers will have the opportunity to participate in a unique seminar featuring national beef industry leaders while achieving their Beef Quality Assurance certification at this year’s Cattlemen’s Congress in Oklahoma City.

The educational event is scheduled from 1 p.m. to 4 p.m. on Jan. 4, 2022, at the Oklahoma City Fairgrounds in the Super Barn Sales Arena, and

all producers are invited to attend. The BQA certification seminar will include a panel of speakers featuring national breed leadership discussing the importance of quality and marketing for beef producers.

The panel discussion will be facilitated by Josh White, executive director of producer education and sustainability at the National Cattlemen’s

Beef Association and will include Shane Bedwell, American Hereford Association; Kara Lee, Certified Angus Beef; Clint Rusk, American-International Charolais Association; Megan Slater, American Gelbvieh Association; and Heather Buckmaster, Oklahoma Beef Council. For those unable to attend the training in person, BQA certification is also available at www.bqa.org.

Proper placement and construction of windbreaks can pay off

By Kris Kohl, Iowa State University Extension

Winter is coming fast and bringing with it snow and wind. Cattle and farmsteads both can benefit from properly placed windbreaks. There are two main windbreak functions on a farm: livestock windchill protection and snow windbreaks. We’ll discuss how to use each one to its greatest benefit.

Livestock windchill protection windbreaks are built to be 20% open and 80% closed. The normal high-wind direction is the north and west of a feedlot. By allowing the windbreak to be 20% open, some air will penetrate, but its speed will be reduced by about one-fourth of the high speed. This means a 50-mph wind will feel like a 37.5 mph wind, which is much

more manageable.

Snow will tend to pile up two times the height of the windbreak. A farmer using cornstalk bales to build a windbreak might build it to be 10 feet (ft.) high and have 6 ft. of solid barrier and 1.5 ft. of open space along the northwest side of the feedyard. It should be placed at least 20 ft. back from the yard for the snow area. This area

should also have a natural slope to direct the spring melt water away from the yard. The protected area will be 10 times the height, which, in our case is going to be 100 ft. downwind. We would like to place the feedbunks and water in this zone, along with driveways for traffic.

Snow is always a problem in the winter, and moving it around with

equipment does not add to the bottom line. Snow windbreaks are built to be 50% solid and 50% open. They will dump and drift snow for three to four times the height of the windbreak and the height of the drift will be 1.2 times the height of the windbreak. For example, if we start with a 6-ft.-high bale that’s 6-ft. wide, with a 6-ft.-wide space, this will

accumulate snow for 24 ft. with a drift that will be 7.2 ft. high about 18 ft. back from the fence. With snow windbreaks, I would like to place them about six times their height away from driveways and lanes to greatly reduce the time and effort of moving snow around the farmstead. For our 6-ft. example, that means 36 ft. back from the driveway.

Save money with alternative sources of phosphorus

By Shelby Varner, K-State Research and Extension

A Kansas State University (K-State) beef systems specialist said cattle producers may have a few options available to them to offset the rising costs of adding phosphorus to their herd’s diet.

Phosphorus is a common deficiency for cattle around the world, but the price of supplemental phosphorus mineral is increasing, says K-State’s

Justin Waggoner. “We are expecting to see higher prices for mineral as we get into the fall and even on into the spring booking season.”

To balance the additional costs, Waggoner says, producers “can focus on supplement selection and take into account the other sources of phosphorus that might be available.”

Many of the phosphorus sources that go into our fertilizer products

— which also have been rising in price — are the same ones used in beef cattle mineral.

“[As] we see commodity prices go up and fertilizer input prices go up, the value of the phosphorus that’s being put into these mineral products is going to follow suit,” Waggoner says.

Mineral supplements are often used because cattle have varying needs for phosphorus. Waggoner says cattle receive phosphorus into the diet via native range, as well as feed

supplements and mineral products.

Different minerals contain varying phosphorus levels.

“Today, we have a variety of products to choose from, ranging from 4% phosphorus up to the traditional 12%,” Waggoner says. “Many of the products that we use to supplement a cow with protein throughout the winter months also bring a fair amount of phosphorus to the table.”

Commercial range cubes, dried distillers’

grain, cottonseed meal and corn gluten provide amounts ranging from 0.75% to 1% phosphorus.


“Taking into account those dietary sources of phosphorus can be a good step for producers to look at if they’re looking at ways to potentially reduce the cost of their mineral program this fall into spring,” Waggoner says.

Waggoner says it is important to make sure that the product used is palatable. A good way to evaluate if the cattle are consuming an appropriate


amount is to look at those target intake levels, which can be found on the mineral bag’s tag.

“Do some rough math to what that would look like if we’re relatively on target for a week’s consumption with those cows,” he says.

“It’s always an expense to the balance sheet regardless of whether we’re talking about feed or mineral programs, and there’s certainly an opportunity here to maybe look at some potential cost savings,” Waggoner says.



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CONSIGNMENTS FOR JANUARY 4, 2022:

- 107 blk strs & hfrs, 350-400 lbs., weaned, vacc.
- 80 blk bwf strs & hfrs, 500-600 lbs., weaned, vacc.
- 35 blk strs & hfrs, 600-800 lbs., weaned, vacc.
- 72 blk strs & hfrs, 600-800 lbs., weaned, vacc.
- 60 blk Sim strs & hfrs, 700-900 lbs.
- 50 blk strs & hfrs 650-700 lbs., weaned, vacc.
- 60 blk hfrs, 800-850 lbs.
- 75 blk Red Char strs, 825-850 lbs.
- 110 blk strs, 850-900 lbs.
- 62 blk strs 850-875 lbs.
- 65 blk strs, 850-900 lbs.
- 60 blk red strs 900-925 lbs.
- 60 blk strs 925-950 lbs.
- 61 blk xbred strs 925-950 lbs.

CONSIGNMENTS FOR JANUARY 11, 2022:

- 25 Angus first calf hfrs 1000-1100 lb Start calving Feb. 1 for 60 days Ai'd bred or bred low birth weight Angus bulls all off one ranch out of Montana. Have had vaccinations, ocv'd AI to Connealy Concord, clean up bulls Connealy Optimizer and Bar Paycheck.
- 190 Angus hfrs replacement quality, 650-675 lbs., long time weaned, vacc. running out light flesh. Home raised from Stuewe Ranch.
- 48 blk strs & hfrs 500-600 lbs., weaned, vacc.

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