Secretary of Agriculture Mike Beam announced last week that Kelsey Olson has been named Assistant Secretary of Agriculture at the Kansas Department of Agriculture. Olson began serving in the new role on July 1.

"I'm excited to add Kelsey to the team," said Beam. "Her knowledge of the diverse agriculture sectors in Kansas, experiences with constituent services, and passion for rural Kansas makes her a perfect fit at the Kansas Department of Agriculture."

Olson will assist in leading the agency by serving as a liaison between the agency and industry stakeholders, assisting the Secretary with attendance and participation to meeting/event invitations, participating in regulatory and legislative policy deliberations, and coordinating special projects and initiatives of KDA.

Olson has been with Syngenta in Junction City since 2010, specializing in portfolio management, trend analysis, investing and sales within the agriculture industry. She also worked in the

office of U.S. Rep. Jerry Moran as a district agricultural representative.

Olson grew up in Norton, Kansas, then attended Kansas State University where she earned a bachelor's degree in international agribusiness and master's degree in agricultural economics. She resides in Manhattan with her husband, Casey, and their two children.

AI advancements lead to increased profitability for commercial cattlemen By Heather Smith Thomas have portable breeding barns

The first known use of artificial insemination (AI) was in horses — by Arab sheiks who wanted to utilize bloodlines of tribal enemies. They'd sneak up to the other tribe's herd at night with a mare in heat and secretly collect semen from the desired stallion into a leather pouch, taking it back to their camp to inseminate a favorite mare.

Artificial insemination in U.S. cattle was first accomplished in dairy herds in the 1930s with cooled fresh semen - transported in glass vials

kept cool in ice water. Most AI studs were local, because fresh semen couldn't be transported very far. The advent of frozen semen revolutionized this process. Beef AI got started in the early 1950s.

Today the process is easier with synchronization, and conception rates have also improved. Willie Altenburg, a cattleman in northern Colorado with registered Simmental and Angus, works for Select Sires and says heat synchronization has worked very well for heifers for many years.

"We were having less suc-

cess with cow synchronization, but advent of the CIDR® and use of prostaglandin really helped with that. Synchronization and fixed-time insemination has helped a lot when working with cows, but we need a team effort to get this accomplished. Most producers can't breed 100 cows in one morning," he says.

AI is affordable, he says, and the expertise of people who come to these ranches to give a full-service program to get the job done can easily get 60% of the females pregnant on the first day.

"AI organizations now

and technicians who come do chuteside service - and get those cows all bred in a few hours," says Altenburg.

Progress in AI techniques has been aided by the Beef Reproductive Task Force in figuring out the best AI protocols. This is a group of researchers who work with beef reproduction at various universities, doing research on estrous synchronization and AI.

"Our goal is to have six out of every ten animals that leave the breeding shed pregnant on the first day of breeding season. This makes a difference

Bar S Alpha 8719 won grand champion steer at the 2019 Kansas Junior Angus Association Preview Show, June 1-2 in Hutchinson. Baylee Wulfkuhle, Berryton, owns the April 2018 son of BC Alpha c1327.

in terms of your needed bull power," says Altenburg.

With the cost of AI and the cost of bulls, more large herds are incorporating AI into their business plan. It is affordable, he says, and the expertise of people who come to these ranches to give a full-service program to get the job done can easily get 60% of the females pregnant on the first day. Having that many females pregnant early in the season makes the producer money.

Some of the newer reproductive technologies available today include embryo transfer and sexed semen, but the average commercial cowman isn't going to use these tools.

"Of all the things that I've tried in my own operation, including embryo transfer and sorted semen, AI has made me a lot more money than anything else I've ever done. The more AI calves I can get, the more improvement I can get," says Altenburg.

You can select the genetics you want for certain traits. You can breed heifers to calving-ease bulls with high growth and good maternal

traits with the goal of keeping replacement heifers from that group. You can also breed the cows to a high-performance bull or terminal sire for bigger calves to sell or to make money on retained ownership through the feeding phase.

"I make more money with an \$18 straw of semen than I do with anything else I do with my cows," says Altenburg.

Some of the newer technologies may become more affordable in the future. Sexed semen at this point has a lower conception rate than regular AI (8%-10% reduction in conception), but the flip side is very good results on the gender of the resulting calves.

"If you're breeding heifers, you can use heifer (sexed semen) to reduce dystocia (since heifer calves tend to be smaller at birth than bull calves) and then keep replacements out of your heifers, because hopefully they will be your best genetics. If you are in the bull business, you can produce males and sell \$5,000 to \$10,000 bulls instead of \$2,000 heifers," he says.



McCurry Final Answer 8179 won reserve grand champion steer at the 2019 Kansas Junior Angus Association Preview Show, June 1-2 in Hutchinson. Aubree McCurry, Burrton, owns the May 2018 son of McCurry Final Answer 4229. Brittney Creamer, Montrose, Colo., evaluated the 94 entries.

Photos by Jeff Mafi, American Angus Association



Cheyenne Brunker, Ottawa, won champion commercial steer at the 2019 Kansas Junior Angus Association Preview Show, June 1-2 in Hutchinson.



Sankeys Lucy 825 won reserve grand champion owned female at the 2019 Kansas Junior Angus Association Preview Show. Mia Hastings, Wamego, owns the April 2018 daughter of C&C McKinley 3000 EXAR. She first won junior champion.







Y CONSIGNMENTS FOR JULY 12

- 131 choice blk strs & hfrs, Fall shots, no implants 700-800 lbs.
- 27 choice reputation Angus strs & hfrs, one rd shots, 600-750 lbs.
- 8 blk & bwf replacement quality hfrs, weaned April, 675-725 lbs.
- 55 choice SimmAngus strs & hfrs, weaned, 3 rds shots, 600-750 lbs.
- 45 blk strs & hfrs, long weaned, 2 rds shots, 500-600 lbs.
- 48 blk strs & hfrs, 2 rds shots, weaned 90 days, 450-650 lbs.

Y CONSIGNM FOR JULY 19

- 12 blk strs & hfrs, weaned, all shots, 600-650 lbs.
- COMPLETE DISPERSAL SELLING AT 11:30: 30 blk & Red Baldy Fall calving cows bred SimmAngus bulls to start calving Aug. 15 for 60 day calving period. 24 are 3-4 yrs, bal SS.
- 30 blk bwf strs & hfrs, ID tags, 1 rd pre-wean shots, 600-700 lbs.
- 52 blk strs & hfrs, 2 rds shots, long weaned, 600-800 lbs.

VISIT US ON THE WEB FOR DAILY CONSIGNMENT UPDATES AT WWW.MCCLIVESTOCK.COM

FIELD REPRESENTATIVES

JOHN CLINE ONAGA 785-889-4775 Cell: 785-532-8381

SAM GRIFFIN BURNS 620-726-5877 Cell: 620-382-7502

BRENT MILLER ALMA 785-765-3467 Cell: 785-587-7824

ALAN HUBBARD OLSBURG 785-468-3552 Cell: 785-410-5011

MERVIN SEXTON **BILL RAINE** MANHATTAN MAPLE HILL Cell: 785-770-2622 Home: 785-537-7295

785-256-4439 Cell: 785-633-4610 Cell: 785-556-1422

TOM TAUL MANHATTAN 785-537-0036

JEFF BROOKS BEATTIE 785-353-2263

LINN 785-348-5448 Cell: 785-562-6807 Cell: 785-447-0456

BRYCE HECK DAN COATES BALDWIN 785-418-4524

Page 14

Grass & Grain, July 9, 2019

Kansas Hay Market Repórt

Hay market trade, activity and demand is moderate, with an increase in alfalfa trades. Prices remained generally steady. Alfalfa prices have been variable, due to the unpredictable weather pattern of this having season. Prices this week, however, seemed to settle a bit as hay producers finally had a hot and dry week to get hay put up. Dairy quality hay remains elusive as it has proven very difficult to put up without being rained on at least once. Due to the shortened holiday week, there will be no report next week, July 9. The next report will be July 16. If you have any extra hay to sell and/or need hay here in Kansas, use the services of the Internet Hay Exchange: www.hayexchange.com/ks.php.

Southwest Kansas

Dairy alfalfa, grinding alfalfa and ground/delivered, steady; movement moderate. Alfalfa: horse, premium small squares 250.00-270.00. Alfalfa: Dairy 1.00-1.05/point RFV, Supreme 185.00-210.00, Premium 170.00-195.00, Good 160.00-170.00. Stock or Dry Cow new crop 160.00-170.00. Fair/Good grinding alfalfa, old crop 160.00-170.00, new crop 120.00-130.00. Ground and delivered locally to feedlots and dairies, old crop 195.00-205.00, new crop 150.00-160.00; Oat hay, large rounds 70.00-80.00 with an instance at 110.00; The week of 6/23-6/29, 9,709T of grinding alfalfa and 350T of dairy alfalfa was deliv-

South Central Kansas Dairy alfalfa, grinding alfalfa, ground/delivered, grass hay,

LIVING ESTATE AUCTION

SANDY & The Late ROBERT GROSFIELD ESTATE

For Full List & Pictures: whunterauctions.com/ac.htm

D4 Auctions • Dee Hill, Auctioneer

785-213-8982

steady; alfalfa pellets, sun cured steady to 10.00 lower; movement moderate. Alfalfa: horse, small squares 200.00-210.00. Dairy, 1.00-1.10/point RFV, Supreme 195.00-215.00, Premium 175.00-200.00, Good 165.00-175.00. Stock cow, 140.00-160.00. Fair/Good grinding alfalfa, old crop 120.00-140.00, new crop 100.00-120.00. Ground and delivered locally to feedlots old crop 165.00-185.00, new crop 140.00-150.00; Alfalfa pellets: Sun cured 15 pct protein 200.00-210.00, 17 pct protein 210.00-230.00, Dehydrated 17 pct 295.00-305.00; Sudan: large rounds 75.00-85.00; The week of 6/23-6/29, 5,784T of grinding alfalfa and 675T of dairy alfalfa was delivered.

Southeast Kansas

Dairy alfalfa steady to .05/pt higher; grinding alfalfa, ground/ delivered, grass hay steady; movement slow to moderate. Alfalfa: horse or goat, 220.00-240.00. Dairy 1.00-1.10/point RFV. Stock cow 170.00-180.00. Fair/Good grinding alfalfa, none reported. Ground and delivered, none reported; Grass hay: Old crop bluestem, premium small squares 140.00-150.00. Good, mid to large squares, 100.00-130.00, large rounds 95.00-110.00. New crop brome, good, small squares 145.00-150.00, mid to large squares 140.00-155.00, large rounds 125.00-135.00; Sudan: large rounds 75.00-85.00; Oat hay, mid squares 60.00/bale; Wheat Straw: mid and large squares 75.00-100.00. Mulch: large rounds 50.00-60.00. The week of 6/23-6/29, 950T of grass hay was delivered.

Northwest Kansas

Dairy alfalfa, grinding alfalfa, ground/delivered steady; movement slow. Alfalfa: Horse or goat, 215.00-225.00. Dairy, Premium/Supreme 1.00-1.05/point RFV. Stock cow, fair/good 150.00-160.00. New crop fair/good grinding alfalfa, 105.00-115.00. Ground and delivered locally to feedlots and dairies.

130.00-140.00.

North Central-Northeast Kansas

Dairy alfalfa, grass hay, grinding alfalfa, ground/delivered steady; movement slow to moderate. Alfalfa: horse, new crop, premium small squares 9.50-10.50/bale. Dairy 1.00-1.05/point RFV, Supreme 185.00-210.00, Premium 170.00-195.00, Good 160.00-170.00. Stock Cow, old crop, 195.00-200.00. New crop fair/good, grinding alfalfa, 130.00-140.00. Ground and delivered 155.00-165.00. Grass hay: Bluestem, small squares 8.00-8.50/bale delivered, large squares 120.00-130.00, large rounds 100.00-110.00. Brome, small squares 8.50-9.50/bale delivered, large squares 145.00-155.00, large rounds 100.00-110.00 with an instance at 115.00-120.00; Sudan: large rounds 80.00-90.00; Wheat Straw: mid squares 80.00-90.00, and large rounds 60.00-70.00. The week of 6/23-6/29, 534T of grinding alfalfa and 600T of dairy alfalfa was delivered.

***Prices are dollars per ton and FOB unless otherwise noted. Dairy alfalfa prices are for mid and large squares unless otherwise noted. Horse hay is in small squares unless otherwise noted. Prices are from the most recent sales.

*CWF Certified Weed Free

*RFV calculated using the Wis/Minn formula.

**TDN calculated using the Western formula. Quantitative factors are approximate, and many factors can affect feeding value. Values based on 100% dry matter (TDN showing both 100% & 90%). Guidelines are to be used with visual appearance and intent of sale (usage).

Source: Kansas Department of Agriculture - Manhattan, Kansas, Kim Nettleton 785-564-6709. Posted to the Internet: www. ams.usda.gov/mnreports/DC_GR310.txt

ng advisorv members See oard

The Kansas Department of Agriculture's agricultural advocacy, marketing and outreach team is seeking talented Kansans to serve on the Marketing Advisory Board. The mission of the KDA marketing division is to serve all Kansans

aooant

19255 Bronc Rider Road

GUNS (Sell at Noon)

Superior Àrms 5.56 cal. semi-auto Rifle w/clip; Win-

chester Model 74, 22 Rifle; Ste-

ens pump 12 ga. Model 620. VEHICLES (Sell after Guns)

2006 Cadillac DTS, approx.

110,000 mi.; 1995 Cadillac Se-

ville, approx. 91,000 mi.; 2007

SATURDAY. JULY 13. 2019 -

place a classified ad

through innovative programming and deliver solutions designed to create an environment that facilitates growth and expansion in agriculture while increasing pride in and awareness of the state's largest industry - agriculture.

renew a subscription

É ESKRIDGE, KANSAS

Ram 1500 Pickup, Hemi 5.7 li

ter, slide rear window, sunroof

power seat, bed cover, approx

92,000 mi. (sells w/Reserve

Garage Items, Shop Items,

Farm Items, Lots of Tools,

Furniture and Antiques.

7'x16' Tandem Axle Trailer.

— 10:00 AM

The Marketing Advisory Board will advise the program team on a variety of topics through the following sub-programs: agricultural business development, international agricultural development/trade, From the Land of Kansas. local foods and affiliated pro-

grams, agricultural workforce development and agricultural education.

If you are interested in applving to serve as a Marketing Advisory Board member, please submit a resume, statement of interest/cover letter and tax clearance confirma-

tion PDF via email to Kerry Wefald, director of marketing, at kerry.wefald@ks.gov. For more details about the board and about the application process, go to agriculture.ks.gov/ marketing-advisory-board. All questions can be directed to Kerry Wefald via email or by

phone at 785-564-6758.

Applications are due by August 1, 2019, with the first organized board meeting of the fiscal year scheduled for Thursday, September 12, in Hutchinson at the Kansas State Fair.

'oultry Days Workshop KSU holds first annua

backyard poultry enthusiasts from around the state recently as they attended the First Annual Poultry Days Workshop series in Manhattan. The workshops were held in conjunction with the Annual KSU Pullet Sale, where backyard hobby flock owners could purchase ready-to-lay pullets that were managed and cared for by KSU Animal Science students throughout the spring semester. Keeping backyard poultry is a hobby enjoyed by more people today who often keep them as pets, for shows, and for egg production.

The Poultry Days activities included presentations by Dr. Scott Beyer, State Extension Poultry Specialist, on "How to manage your new pullets" then a discussion on "Health care for small flocks" followed by an open question session on raising poultry. Even with the overwhelming heat, around 80 people attended Poultry Days and another 45 purchased over 700 pullets over the course of the day, all from 18 counties across the state. The poultry research and teaching group greatly appreciates all the help that was provided by 4-H members, 4-H Leaders, and volunteers alike. The next Spring Pullet Sale is scheduled for April 25, 2020.

The KSU Poultry and Gamebird Research Unit hosted

Wheat, oats lone stragglers in grain stock report

Kansas corn stocks in all positions on June 1, 2019 totaled 206 million bushels, up 4 percent from 2018, according to the USDA's National Agricultural Statistics Service. Of the total, 45 million bushels are stored on farms, up 7 percent from a year ago. Off-farm stocks, at 161 million bushels, are up 3 percent from last year. Wheat stored in all posi-

tions totaled 263 million bushels, down 13 percent from a year ago. On-farm stocks of 3.20 million bushels are down 29 percent from 2018, and offfarm stocks of 260 million

TWO PERSONAL **PROPERTY AUCTIONS 2 STARTING TIMES — 2 LOCATIONS** Lunch On Grounds • SUNDAY, JULY 21, 2019 First Auction Starting 11:00 AM Auction located at the corner of Main and Walnut St. in Westmoreland, KS. 1 block North on Walnut to 202 West Cooper St. **MOWER - GENERATORS - YARD TOOLS** 2005 John Deere L118 Automatic Hydrostatic 42" mower with the edge cutting system; Near new Powermate Maxa 5000 ER portable generator with 10HP motor; Briggs & Stratton Elite Series 8000 watt with 10,000 starter watt portable generator, like new; Ryob 155R 12V 10" string trimmer; JD 2 wheel lawn trailer with poly bed John Deere 200 amp engine start battery charger; Step ladder

bushels are down 13 percent from last year.

Sorghum stored in all positions totaled 79.5 million bushels, up 98 percent from 2018. On-farm stocks of 6.10 million bushels are up 85 percent from a year ago, and offfarm stocks of 73.4 million bushels are up 99 percent from last year.

Soybeans stored in all positions totaled 93.1 million bushels, up 69 percent from last year. On-farm stocks of 23.5 million bushels are up 170 percent from a year ago, and off-farm stocks, at 69.6 million bushels, are up 50 percent from 2018. Off-farm oat stocks totaled 151,000 bushels, down 4 percent from 2018.

New KUHN



Address:

City: _____ State: ____ Zip: _____

Phone: _____

Email:

Activate Online Edition?

Online Edition is FREE with purchase of Print Subscription: Email is required.

In-State Print Edition Rates:

1 Year; \$41 + additional sales tax _____

2 Years; \$76 + additional sales tax

3 Years; \$105 + additional sales tax

** SALES TAX DETERMINED BY COUNTY AND MUST BE **INCLUDED TO RECEIVE FULL YEAR. CALL IF UNSURE.****

Out-Of-State Print Edition Rates:

1 Year; \$51 ____ 2 Years; \$95 ____ 3 Years; \$132

Call for info about our 1st Class or Online Only rates

Check/Cash Enclosed: _____

or

Credit/Debit Card:

Visa, Master Card, Discover, American Express

____-

Expiration Date: ____/____

V-Code (3 digits on back of card): _____

Signature: _____

Mail to: P.O. Box 1009, Manhattan, KS 66505 OR Stop by the office: 1531 Yuma St., Manhattan, KS 66502

1-877-537-3816

ANTIQUE ITEMS Very old fold up school desk; Humpback trunk; Wooden high chair Kerosene lamps; Hand coffee grinder; Old kitchen utensils; 3 gal. Red Wing and a 5 gal. Blue Leaf crock; 2 school desks with chairs; Old overhead projector; Very old child's pool table; Old metal twin bed; Handmade bookcase bed and child's rocker; Radio Flyer 4 wheel child's wagon; Walnut 3 drawer dresser with tear drop pulls; Old wooden sewing machine cabinet.

Assorted yard tools; Good wooden work bench.

FURNITURE AND MISC. Criterion chest type deep freeze, good; Oval Oak dining table with 6 Oak upholstered chairs and matching Oak lighted China hutch, very nice; Queen size bedroom set with triple dresser with mirror, 5 drawer chest and night stand; Queen size sofa sleeper; 2 drawer wooden filing cabinet; 6 drawer dresser with mirror; 2 drawer night stand; Wingback upholstered chair; Magazine table lamp; Corner TV cabinet; Entertainment center with side cabinet; Kitchenware and cookware pots, pans, crock pots etc.; Christmas yard art and more.

SELLER: BILL PRINZ

AUCTION # 2: Starting approx. 1:30-2:00 PM

Auction located from Westmoreland, KS. 1/2 mile West on the Flush Road to Bigelow Road, then 3 miles West on Bigelow Road to Antelope Run Road, then 1 mile South to McKimmons Road., then 1/8 mile East to 10150 McKimmons Road., Westmoreland, KS.

MOWERS

Craftsman 20HP Automatic 46" rider mower w/ Kohler Pro 20V twin motor, good; Craftsman self-propelled walk behind mower with bagger, good; Metal trailer ramps; Pole saw; Hose reels; Assorted lawn tools; Lawn trailer.

ANTIQUE & MODERN FURNITURE (MOST VERY NICE) Marble inset antique Oak dresser with mirror; Oak commode: Queen size Oak bedroom set with 2 night stands; Antique 4 post regular size bed with 5 drawer chest and oval mirror dresser; Wooden desk and chair; Tall 3 piece wall unit hutch with glass doors, very nice; Large walnut rectangle dining table with end pull outs and 2 Captain's and 4 straight back padded chairs; 2 burgundy Wingback chairs; 4 piece sectional with recliner on each end; Caneback pad-ded chair; Wooden coffee table; Glass top coffee table and 2 Hexagon matching end tables; 3 cushion divan with matching love seat; Very nice 48" Baker's rack; 5 drawer rolling sewing cabinet; Custom made wooden stereo cabinet; Sony flat screen TV with wooden stand; Assorted lamps; 6 padded folding chairs; 2 matching end tables with magazine racks and lamps; 2 8'x10' Berber carpets; Wall hangings and pictures.

MISC., GLASSWARE AND DECORATIVE ITEMS

Sport Craft Turbo Hockey air hockey table; Regulation pool table (to be moved by buyer); Brass and other metal decorative items; Ceramic and wooden shore bird collection.; Lite Beer lighted sign; Lots of nice glassware pieces; Old Three Star clarinet in case; 2 globes (1 is lighted); Lots and lots of high quality Christmas and all holiday decorative items; Many games and several toys; Old cigar boxes; Other collectible items; Near new Petmate pet feeder; 9' cat tree and cat items; Cascade Ridge bicycle; Inside and outside lights; Many lawn chairs; Lots of kitchenware, baking pans, roasters, small appliances etc.; Old post cards; Sleeping bags; Shelving units.

SELLER: ZOANNE LADING

Auctioneer's Note: Many quality items at both auctions. Be sure to attend! Terms: Cash or valid check - Not Responsible for Accidents or Theft. Statements made sale day take precedence over printed material.

Auction Conducted By: CLINE REALTY & AUCTION, LLC John E. Cline, Broker-Auctioneer, Onaga, KS 785-889-4775 or 785-532-8381 Austin Cline, Auctioneer, Frankfort, KS, 785-565-3246 www.mcclivestock.com/clinerealty

Knight **ProFeed® PF 100 Series** delivery boxes allow feeding of more cows

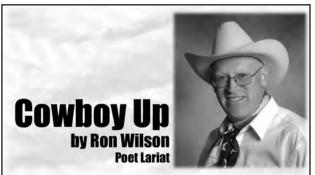
The new KUHN Knight ProFeed® PF 100 Series delivery boxes are an efficient option for many large and extra-large farms, feedlots and ranches to feed more cows per load. With a robust and durable design, the ProFeed 100 Series delivery boxes are reliable in every feeding application.

The PF 100 Series includes two models: the PF 1130 & PF 1145, both available with 5.5" and 17.75" extensions, resulting in capacities ranging from 1,000 cubic feet to 1,450 cubic feet, each with a 50,000-pound maximum net load rating.

The twin-auger design guarantees a fast, thorough cleanout every time. The choice of standard or grain augers provides you with the ability to tailor your machine to match your feeding application. High-quality drive components and controls provide faster discharge and greater one-pass feeding capabilities.

PF 100 Series delivery boxes come standard with a four-auger discharge that provides excellent unloading of a wide variety of feedlot and dairy rations on larger farms and feedlots. There are three lengths, with or without tipoff, available to meet the needs of any operation.





Cow Class

A teacher with a cow by the tail? Or even more than that, a young woman teacher with her arm all the way up a cow's rear end? Now I've seen everything.

This was all part of a recent educational tour in Kansas. It was a project of the American Farm Bureau Foundation for Agriculture and was funded by the Beef Checkoff. The program was called On the Farm 2019. In general, it was an effort to help science educators learn more about all aspects of the beef lifecycle. I thought the program was terrific.

The tour brought together 24 science educators from all across the country. They were literally from coast to coast, coming here from 15 states ranging from California to New Jersey. These teachers specialize in STEM which stands for Science, Technology, Engineering and Math (I'm more interested in a different kind of stem called Big Blue and Little Blue, but that's another issue).

The point is that these educators are teaching and influencing youth about science, and it is important that they get the facts right. This tour gave them a direct look at agriculture in Kansas. They began in Kansas City and then traveled to the Downey Ranch, home of Kansas Livestock Association President Barb Downey and her husband Joe Carpenter. As a neighbor, that was the part of the tour that I got to see.

The group went on to tour the K-State Beef Stocker Unit and Tiffany Cattle Company. They learned about the CattleTrace program and then returned to Kansas City, where they toured Bichelmeyer Meats and then the culinary program at Johnson County Community College. Note that this follows all stages of the beef cattle system from pasture to plate. These educators saw momma cows and calves, stockers, feeder cattle, meat processing, and meal preparation.

The last formal session of the group was called Learning Session: Applying Discoveries. At that point, I assume these teachers were applying what they saw to help achieve

learning outcomes using agriculture in STEM education.

Downey Ranch was the only tour stop I saw, and it was great. Joe and Barb took the group to the pasture where we saw the cows and calves as they explained their operation. We went back to the calving barn where K-State's Dr. Dan Thomson did an outstanding job of talking to the teachers. There were microscopes in place where these teachers could look at slides of fertilized eggs, etc.

I was really proud of Barb Downey, who talked about their operation and some of their innovative practices. A very calm and patient cow was in the chute, and Joe demonstrated how to ultrasound her. Then there was a very interesting volunteer opportunity: "Does anyone want to palpate this cow?" Sure enough, one brave young woman volunteered. She put on a plastic sleeve, stepped in the chute, and reached in the birth canal. I am sure this is an experience that teacher will never forget,

Imagine her phone con-

versation with her husband

that night. "What did you do

today?" "Oh, I stuck my arm

inside the back end of a cow,

how about you?" It would be

such candor and sincerity that

it really connected with those

teachers. These educators

Barb and Joe spoke with

tough to top that one.

fascinated too

and the other teachers seemed

learned about the science and also learned about the personal side of the beef operation. I was so proud of the way Barb and Joe and Dr. Dan communicated on behalf of farmers and ranchers.

Page 15

I'm convinced that this type of communication will have a positive impact for the beef industry in the long run. There's no classroom quite like a cow.

Books v. Bovines

There's things you learn from books or from classroom videos, Or a lecture from a teacher on a topic that she knows. There are virtual labs which some schools are pursuing, But none of that's as powerful as learning by doing. You can tell me something or show me it too, But experiencing it will make it really come through. When I live it first hand, with a touch and a feel, I know I have truly learned it for real. Our beef checkoff invested in a tour this way, So folks learned of the science in ranching today. Here's the lesson I learned from that tour somehow: There's no substitute for learning science first-hand in a cow.

Happy Trails! www.ronscowboypoetry.com © Copyright 2019

hreat currently **Kansas corn fields Jisease** low in

A Kansas State University row crop specialist says he's happy – even if surprised – by the low incidence of disease he's finding in the state's corn fields so far this summer.

But he's urging growers to continue scouting their fields for diseases that have been commonly found in Kansas in past years.

"I have been surprised by the low levels of gray leaf spot in most fields," said Doug Jardine, who has traveled several areas of Kansas over the past few weeks looking at corn and soybean fields.

"In those areas where I was able to find gray leaf spot, it was on the very lowest leaves, even in some fields that I know have had a problem with a history of this disease."

Gray leaf spot is a fungus that causes an estimated loss of nine million bushels of corn per year in Kansas. It was first found in the state in 1989, and is considered the most serious foliar disease of corn in Kansas and the north central United States.

For that reason, indications that it might not be as prevalent so far this summer are no reason for growers to become complacent.

"It's present in the state, so we need to be scouting," Jardine said. "But at this point, I was not personally in any fields that I think are going to need a fungicide this year. And given the commodity prices this year, if we can save \$15 to \$25, that's probably a good thing."

He added that the lower incidence of the disease in Kansas could be due to growers' tendency in recent years to plant hybrids containing tolerance to gray leaf spot,

"because that's what we've preached as the primary management practice for years."

Jardine said that gray leaf spot is sometimes confused with another disease that shows up routinely in Kansas - bacterial leaf streak, a bacteria that is more common in corn fields managed under continuous no-till and center pivot irrigation.

He noted that bacterial leaf streak is mostly found in the western one-third of Kansas. but has been found recently in the southeast (Labette County), north central (Clay County) and south central (Butler County) parts of the state.

"To an untrained eye, this disease can look very similar to gray leaf spot," Jardine said. "We know over the last three to four years that people thought they had gray leaf spot, went out and sprayed and saw no response to the fungicide application - that's because fungicides don't work on bacteria."

Differences between the two diseases are often seen in the lesions that appear on the leaves of the corn plant.

"With gray leaf spot, the lesions are defined by the vein, so they have very sharp borders on them; they don't cross the vein," Jardine said. "With bacterial leaf streak, they don't respect that vein, so they can have a wavy edge that crosses the border and comes back. They tend to be very long and linear."

He noted that another test is to hold up an infected leaf so that it is back-lit by the sun. If the light passes through readily (translucent), the disease is likely to be bacterial leaf streak. But if light doesn't pass through the lesions (opaque)

and appears dark brown, the disease is likely to be gray leaf spot.

In either case, Jardine suggests that growers submit samples of suspect leaves through their local Extension office, or send directly to the plant disease diagnostic lab at Kansas State University.

In addition, Jardine said corn growers should be on the lookout for signs of the root lesion nematode, which were "very severe" in northeast Kansas (Doniphan and Brown counties) a year ago.

Producers who suspect an infestation of root lesion nematodes should dig up whole plants 30-40 days past emergence, shake off the excess soil from roots, and send the sample into the plant disease diagnostic lab.

Jardine said one sample re-

ceived at K-State a year ago had a count of 100,000 nematodes per gram of root weight. That's a huge number considering that yield losses in corn are common with infestations of 5,000 to 10,000 nematodes per gram of root weight.

"You're looking for stunted areas in the fields, especially if they're starting to become a little chlorotic (yellowish)," Jardine said.

Specific to soybeans, Jardine said he's keeping his eye out for the presence of frogeye leaf spot, which could take hold in some fields this year because of the wet June weather in Kansas.

More information on crop diseases in Kansas is available from K-State's Department of Plant Pathology, and the weekly e-Update published by the Department of Agronomy.

Heat, runoff heighten risk of blue-green algae in Kansas ponds and lakes

The extreme heat that hailed the end of June in Kansas combined with the heavy runoff from rains earlier in the month put many of the state's waterways at risk to a waterborne toxin that could impact livestock and other animals around the farm.

Kansas State University veterinary toxicologist Steve have animals that look sick, we'll try to do supportive care. If the damage is to the liver, there are things we can do to treat animals to get them over the initial damage they may have."

But, he adds, "neurotoxins are very acute, so typically they lead to sudden death. In the last two years in Kansas, I have had grazing animals that have died... horses, cattle, sheep, goats and even dogs that swim in the water and drink as they're swimming through the pond." Blue-green algae can form in a pond or other waterway from runoff that carries nitrogen or phosphorus into the body of water. The algae grow and bloom as temperatures reach 75 degrees or higher. Farmers and others should be on the lookout for a blue. green or even orange color in the water. The bacteria will often give the impression of paint in the water, or a growth mat, according to Ensley. Blue-green algae is a threat to surface water only; it does not affect ground water. Well water typically is not affected.

"If you see something different about your pond or surface water, you need to investigate it," Ensley said. "You need to get a sample taken and send it in to be tested."

The Kansas State University Veterinary Diagnostic Lab can test water samples for blue-green algae, but Ensley said farmers can also work through their local veterinarian or Extension agent. Until water is confirmed safe, Ensley said farmers should keep animals away from the pond, and look for other ways to provide water to the herd. "It takes about two weeks from when we see a bloom for it to get rid of the toxin," Ensley said. "That's kind of the guideline. Get them off that water for two weeks and then we can re-evaluate."

ponds by installing "as much grass and buffer strips between crop fields and surface water as possible so that we can slow down the movement of nitrogen and phosphorus into that water."

Some short-term solutions to prevent algae blooms include installing solar-powered aerators to keep water moving or adding water-soluble dyes to the water, which block the amount of sunlight that can get to the pond.

AUC ION SUNDAY, JULY 14, 2019 — 9:30 AM Wischropp Auction Facility, 930 Laing St. - OSAGE CITY, KS 9 Guns selling approx. 10 AM; selection of Coins; good ware; large selection of Wood-working Tools, Shop Tools, assortment of glass; Prodigy etc.; 2 sets of washers & dry-Quilting Machine w/table; large ers; several nice Antique Furselection of Jewelry; Northern Ag mist sprayer, slide in, nice niture pieces; Furniture, Kitch-en items, etc. **MUCH MUCH** unit; 7 pieces Guardian Cook-MORE! NOTE: Something to fit everyone's interest in this Auction! Several area sellers, with a great cross section of merchandise. KS Sales Tax Applies. WISCHROPP AUCTIONS AUCTIONS 785-828-4212 Pics & listing: www.wischroppauctions.com

Ensley said that the incidence of blue-green algae in farm ponds "has become more frequent in the last 15-20 years," creating headaches for farmers who rely on those ponds to keep livestock hydrated during the hot summer months.

When blue-green algae blooms, it creates a toxin that can affect the liver or the nervous system of animals that drink affected water. Animals may recover from toxins that affect the liver, but when they ingest toxins affecting the nervous system, those animals often die - sometimes within hours of exposure.

"There is no antidote for this toxin," Ensley said. "If we

China bans Canadian pork and beef

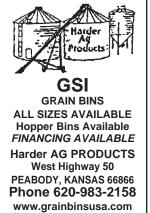
In other trade news, China has banned both pork and beef imports from Canada after Chinese customs authorities discovered ractopamine residues in a batch of pork shipments. China requires all beef and pork to be free of ractopamine.

Canadian officials conducted an investigation and found 188 official veterinary health certificates attached to pork exports to China had been forged. Canada believes the incident is a criminal offense. The Canadian Pork Council, Canadian Meat Council and Canada Pork International are working closely with government officials on the issue.



For the future, Ensley noted that farmers can lessen the risk of toxins forming in their

For more information, talk with your local veterinarian or Extension agent, or visit the K-State Veterinary Diagnostic Lab at www.ksvdl.org.





Restored 1955 Ford Pickup @ 1:30 PM. Stepside, blue, off frame restoration, AT, 302 V-8, 4 barrel, new wiring & interior, oak wood bed (pictures on website); Lots of quality mechanic Tools; Snap On top & bottom boxes; Craftsman boxes; Wrenches; Sockets, some Snap On; Im-pacts; Victor Cutting torch set & bottles; Millermatic 250X wire welder; Lincoln stick welder; Eagle upright air compressor; Zaco milling machine; Milwaukee chop saw; Hand held & bench grinders; Engine hoist; Pressure vasher; Bolt bins & bolts; Lots of

misc. mechanic shop tools; Generator; Dewalt Table saw; Ryobi Band Saw; Porter Cable Router; Wood clamps; Cub Cadet 60" riding mower; 2 Earthquake rear tine tillers; Ariens chipper; pull behind yard equipment; Weed eaters; Poulan chain saw; Stihl MS170 chain saw; Yard windmill; 15 spd McFury bicycle; Ladders; BBQ grills; Camping stove; Freezers; Nice sectional couch; Lots of nice misc. household items; Pillsbury Doughboy collectibles; Lots of other misc. items

Large sale of quality items. Food onsite by First Christian Church of LeRoy. There is some shade.

Mrs. Bill (Cheryl) Brite, OWNER

Complete Sale Bill & More: www.kansasauctions.net/kurtz



AUCTIONEERS: Darwin W. Kurtz, 785-448-4152 Lavern Yoder, 785-489-2335





NO SALE HELD JULY 3RD

EARLY CONSIGNMENTS FOR JULY 10

49 mixed strs, straight off grass, 875 lbs.

 50 mostly blk strs, straight off grass, 875 lbs.

MORE CATTLE BY SALE TIME

Our Consignments can now be viewed after 12 Noon on Mondays by going to <u>www.grassandgrain.com</u> & logging onto the online Subscription.

View Our Auction Live at LMAAUCTIONS.COM

KFRM AM 550, Every Wed., 8:00 a.m. • Barn Phone 785-258-2205 www.HeringtonLivestock.com

Manager: Tracy Ediger, 785-366-6645 Josh Patry - 785-466-6652 • Gary Suderman - 913-837-6785 Dave Bures - 402-766-3743 • Bob Kickhaefer, Cell - 785-258-4188

nge 16	Grass & Grain, July 9, 2019	
CLASS	CLASS SIFIED AD DEADLINE IS 10:00 A.M. FRIDAY	RATES AND DISCOUNTS
Although co	omplete name, address and phone number need not appear i e must have this information for our records. Phone #:	
Address: _	City:State:Zip:	Cost for one week: Multiply one-week cost times number of weeks you want ad to run.

SWINE HORSES FERTILIZER Run ad ____ consecutive weeks. CLASSIFICATION: SERVICES Cost for weeks: IRRIGATION **DISCOUNTS:** (For PRE-PAID orders only) deduct 10% if ad runs 2 or 3 weeks: deduct 25% if ad runs 4 weeks. Less discounts: TOTAL: \$ PAY WITH (PLEASE CIRCLE ONE): CHECK MASTERCARD VISA DISCOVER Card No. Exp. Date V-Code (required) last AUTHORIZED SIGNATURE 3 digits (see sample: 567) located 1234 567 on the back of your credit card on NOT VALID UNLESS SIGNED the signature panel.

CLASSIFICATIONS CATTLE GOAT SHEEP POULTRY TRAILERS FEED & SEED MACHINERY AUTOMOTIVE EMPLOYMENT REAL ESTATE ANTIQUES PASTURE WANTED HARVESTING PETS LIVESTOCK OTHER LIVESTOCK EQUIPMENT BUILDINGS-BUILDING MATERIALS **BINS - DRYERS - VACS** MOBILE HOMES SPRAY EQUIPMENT BUSINESS OPPORTUNITIES WELDING MISCELLANEOUS

VISA

REMINDERS

- · Please notify us of any errors at once. We cannot be responsible beyond the first insertion.
- NO REFUNDS!

Signature:

• BY PHONE: Ads not accompanied by payment have \$1.00 billing charge added, and discounts are not available.

Four Ways To Place Your Ad CALL: 877-537-3816 TOLL-FREE OR 785-539-7558 MAIL TO: AG PRESS, Box 1009, Manhattan, Kansas 66505 FAX: 785-539-2679

& GRAIN DI/COVER **ONLINE:** www.grassandgrain.com CATTLE CATTLE LIVESTOCK EQUIPMENT CATTLE CATTLE CATTLE SHORTHAIRED BORDER HOLD 'EM FENCE Company OD ANGUS HEREFORD BULLS ANGUS & **BLACK & RED** Collies for sale, working parbarbed wire, welded continu-SIMMENTAL-ANGUS ents, papers available on re-ANGUS BULLS ous fence, pipe, custom tubs. quest. 785-562-6096. gates, alleyways. Cell 785-313-BULLS Full Brothers 4552, http://www.holdemfence. SENECA, KS Volume Discounts com 12 FIRST CALF ANGUS Large frame, low birth weight, heavy Springer heifers, 4 **Private Treaty** fertility tested Good bulls with balanced 18 Month Angus Bulls Al Sired calves on ground, \$1,250/hd Guaranteed & Delivered • EPD's, practical development. Priced for the Commercial OBO. Selling because of Add meat, muscle, growth. Cattleman good disposition & eye appeal health. 620-596-2813 Registered Yearlings & 2 yr. olds with **MIKE and BOB FEIGHT** Calving Ease calving ease & growth Gentle Disposition Oleen Cattle Co. **15 ANGUS FALL CALVING** Clyde, Kansas Excellent Selection with Vol-P.I. Negative Springer heifers, \$1,150/hd ume Discounts 785-614-1368 Falun, KS OBO. Selling due to health. Making tough jobs easier Performance Data Available GLENN CHUCK David J. & Doris, 785-243-4973 620-596-2813 Luco Mfg. Co Good Maternal Traits 785-668-2368 785-668-2454 Daren Ronnebaum Huninghake Angus 785-294-1511 HYDRAULIC CHUTES FRANKFORT, KS ANGUS & SIM-ANGUS WORKING CIRCLES 18-24 month old bulls Leo Huninghake • CAKE FEEDERS 785-292-4537 available, easy fleshing, SWINE CONTINUOUS FENCING Cell: 785-556-2648 maternal focused, • PANELS & GATES calving ease, ANGUS BULLS SWINE good disposition. See us at www.lucoinc.com WOLF CREEK Yearling to 2 year olds EQUIPMENT Or call toll free: TERRY OHLDE Performance Data Available Buildings — Ventilation ANGUS 1-888-816-6707 **Good Maternal Traits**

32 YOUNG BLACK AND RED Angus heavy Springer cows, 9 calves on ground. \$1,350/hd OBO. Selling because of health. 620-596-2813

GRASS

WRITE YOUR AD HERE







FEED & SEED **WANTED TO BUY HAY AND**

Featured Sires: Charlo, Capitalist, Hoover Dam, Bullseye, **Black Granite**

Performance Tested; Fertility Tested; Fully Guaranteed;

Free Delivery in KS & NE. Volume Discounts

See Performance Data & Price List at: www.WolfCreekAnaus.com LURAY, KANSAS

785-698-2225

POLLED **HEREFORD** BULLS

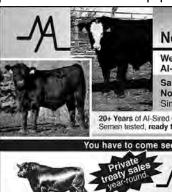
Bred for Complete Performance

Growth

- Muscle
 - Maternal Disposition

Fertility Tested and Guaranteed

DETTKE FARMS Call: ANDY DETTKE Marysville, KS 785-268-0423 785-562-6257 Brian



& Charolais **Bulls For Sale**

Over 250 18 month old & Spring yearling bulls available Your Private Treaty Headquarters. Over 20 vears experience in Private Treaty & Sight-Unseen Sales You won't be choosing from bulls that "didn't make the sale" or were "caught" in the auction.

 Our goal is to get the right bull to the right herd every time.

See our display ad in this issue.

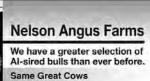
 Videos, data, and catalog available on our website Please check for updates throughout the Spring. Genomic enhanced EPD's on every bull in all three breeds.

It's time to come home to ...

HARMS PLAINVIEW RANCH

Mark & Kim Harms 2528 250th Street Lincolnville, KS 66858 Email: hprbulls@tctelco.net www.HARMSRANCH.com

620-924-5544 Mark Cell: 620-382-6388 Kim's Cell: 620-382-5373



Now Offering. SimAngus & Angus Bulls

20+ Years of Al-Sired Genetics Semen tested, ready to go

ave to come see these bulls!

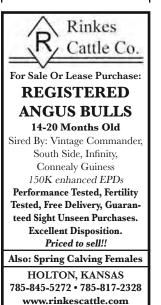


HOFMAN N Simmental



 Good maternal traits Gentle disposition Calving ease Priced to sell

BUSS ANGUS Leonardville, Kansas C: 785-410-3006 H: 785-293-4444



rinkescattle@gmail.com

Marysville, KS 785-562-7164 Cell 785-562-3988 Home





- Yearling & 18 Month Old Bulls
- Calving Ease with Great Growth
- Performance Data Available
- Good Maternal Traits & **Great Disposition**
- **Reasonable Prices Randy Huninghake** Frankfort, KS 785-556-0319 Cell 785-292-6019 Home

GRAHAM SCHOOL

Graham School for cattlemen and women. We special ize in teaching pregnancy check, artificial insemination herd health, calf delivery and many other subjects.

> DATES FOR 2019 August 12-16 No September Classes! October 7-11 November 11-15 December 9-13



For more information, call or write: Dept. GG, Graham School 641 West Hwy. 31 Garnett, KS 66032 785-448-3119

SENECA, KANSAS

HORSES

BUYER FOR ALL TYPES OF horses and tack or trailers. 785-556-5740.

POULTRY

Poultry & Small Animal Auction Fairgrounds, Clay Center, KS

June 15, 2019 August 17, 2019

SALES CASH ONLY 15% commission Check in begins at 8:00 am Auction begins at 12:00 pm Gate fee: \$1.00 per person Fee for no sale over \$50 is commission on the bid. Birds must be blood tested. Bid is per animal in the cage Cages sell with animals No boxes except for chicks. 785-410-0054 or 785-485-2845

Facebook Feathers, Fluff & Stuff

LIVESTOCK EQUIPMENT

R&D PIPE & POST 3 1/2" OD, \$2.70/ft. 4 1/2" OD, \$3.65/ft. 2 3/8" and 2 7/8" OD also available. Sucker rod 3/4"x25', \$8.25 apiece. Delivery available. Wilsey, KS 620-767-2907

Truck tire side wall rings for silage cover; Livestock ground level mineral feeders; Tire livestock water tanks and feeders.

endurobrandlivestock.com 785-231-8397

straw, all types. 785-562-6096.

SMALL BROME BALES \$7, shedded and dry. Hillsboro, Kansas. Call Tony (316) 772-8341

WANTED TO BUY: QUALITY brome in big round bales within 60 miles of Manhattan. 785-770-2977 or mdikeman@ksu. edu

FEYH FARM SEED CO Alma, Kansas Native Grass Seed Wildflowers **Smooth Brome Grass Erosion Control Products Cover Crop Seed** 866-765-3415

nativeseed@feyhfarmseed.com www.FeyhFarmSeed.com

WANTED DAMAGED GRAIN

We pay top dollar for damaged grain. Trucks and vac's available. Immediate response anywhere. Pruess Elevator, Inc 1-800-828-6642

AUTOMOTIVE



2007 IHC 7400 with new Kuhn Knight RC260 Several Daycabs available Feed Mixers and Manure Spreaders Kuhn Knight, new & used Belleville, KS 800-536-2293







	Grass & Grain	, July 9, 2019 Page 17
	TRAILERS	MACHINERY
1	CIRCLED LIVESTOCK & HORSE	2005 635F VERY NICE \$8250 OBO. 785-263-5651.
gents!	TRAILERS FLATBED TRAILERS • 1-800-526-0939 • www.circle-dtrailers.com	641 TOWMOTOR FORKLIFT for sale, \$3000. Phone 785- 877-2005.
le. Fenced	Trailers 4 U 785-292-4166 Frankfort, KS	1981 INTERNATIONAL 1086 for sale. Low hours. Diesel with duals and Koyker K-5 loader, 7 bucket. Hanover, 785-337- 2796.
4	WERRITT <i>IRAVALONG</i> www.trailers4u.com	NEW BOX SCRAPERS, 10' & 12', Tilt available, \$1800- \$2900, 30'-40' Header Trailers \$3100-\$4700 Lindsborg, KS 316-650-2023
sible	Your Local Dealer for:	570 BRENT UNVERFERTH grain cart, corner auger, new Shur-Lok tarp, \$6,500 OBO. 820 Brent Unverferth grain cart. 30.5x32" tires, new Shur- Lok tarp system, \$8,250 OBO. 785-263-5651.
Brad! Ray! g. with out	TravAlong, TravAlum, PJ, Hillsboro, Titan West, and Hayliner. 31' 10k Tandem \$9,850 27' 10k Tandem \$9,170 25' 7k Single Wheel \$7,560	SOUTH BEND METAL LATHE Model 159A, 4' long, 9" swing, 20 collets, 3-jaw, 4-jaw, 110V motor, \$1500. 12" rotary table \$500. 8" rotary table \$900.
ments gents!	STOCK TRAILERS Travalong 24' Standard Stock \$11,750 Hillsboro 7.5' X 26' \$19,200	Starrett pin vises 0200 \$50. Small hole gauges, 4 pc. set \$20. 785-776-7553
452,5115 479,1152 ,280,3564	Rocking "M" Trailer Sales 430 S. Colorado Waterville, KS 66548	SALVAGING COMBINES N5, N7, L, L2, M, F, G, C, CII, AII, A&E, K Gleaner. 6620, 7720, 8820, 7700, 6600, 4400, 3300, 105, 95, 55, JD. 915, 1480, 1460, 1420, 815
AILERS \$15,000	Office: 1-866-261-2526 Shawn: 785-562-6614 Kelsie: 785-313-3233 www.rockingmtrailers.com	IHC. 860, 760, 750, 510, 410, 300 Massey. Several black & orange Gleaner corn heads.
R 25'x7' o welds. w. 816-	BOB'S	Jack Boyle
-2518.	TRAILER SALES	785-382-6848 785-564-0511
LONG trailer, \$3,000 6-4482.	Pomona, Kansas 785-418-2227 www.bobstrailersales.com <i>Circle-D, Elite, Travalum,</i> <i>Travalong, Bulldog</i>	NEW TRACTORS Kubota M7-151 KVT, MFD, Idr Kubota M6-111 MFD w/ Idr Kubota M5-111 MFD w/ Idr
de trail- ' HD iler.	B&W Hitches Turnover ball: \$495	2013 Kubota M8560 HDC 12 4WD, Idr 2016 Kubota M5-111 HDC 12
boo.	Free Installation! • 2007 Titan stock, used, 24', 7' tall w/ 4' tack, AC, immacu- late\$8,000	4WD, ldr. 2014 Case IH Maxxum 115 MC, MFD, ldr 2013 Kubota L3940 HSTC, 4WD, cab, ldr
auler ALES 8-2800	2019 Travalong tilt 16+4, 7k axles,\$5,850 2019 Utility 18+2, two 7k axles,\$3,950 2019 Utility 16+2, two 7k axles,\$3,750	MF50, gas MISCELLANEOUS 2002 JD HX15 15' cutter 2017 Case IH DC102, DMC 2016 Bush Hog 2215 15' cut- ter
o Do	2019 car hauler 18+2, two 3500 lb axles\$2,900 2019 Circle D 24', Full cleated floor, bull pkg, loaded	2014 Bush Hog 2815 15' cut- ter
ICL.	\$11,250 • 2019 Circle D 24'\$9,500 • 2019 Travalum Aluminum	McConnell Machinery
106 s.com	24' stock\$15,700 • 2019 Elite 30' 10k axles gooseneck flatbed \$8,690 • 2019 Elite 25', 2-7k axles	1111 E. 23rd Lawrence, KS 785-843-2676 Evenings
Stock	Gooseneck flatbed\$6,250 • 2019 Elite 25' 10k axles Gooseneck flatbed\$7,950 • 2019 Elite 32' 10k axles	785-979-2271 www.mcconnellmachineryco.com
Store!	Gooseneck flatbed\$8,890 All Elite flatbed trailers low profile and torque tube, dual jacks and toolbox.	USED TRACTORS '10 Case IH Farmall 105U, MFD, cab, Idr. 2850 hrs '09 Case IH Magnum 215,

AGRICULTURE



— ITEMS FOR SALE —	Case IH RMX 340/370 disc 27'
2013 Kubota M110GX tractor	\$15,500
4,700 hrs w/ joystick ldr	Blu Jet II ripper 7sh \$7,000
\$40,000	SF 6030 NH3 coulter 30' CALL

B&H cultivator CALL

Hiniker 1000 cultivator 12r 30'.

Hiniker 5000 cultivator 8R30 ...

.....\$9,000

.....\$4,000

Lilliston cultivator 6R30. \$2,500

1999 Kent 5323 cultivator 6-25'

JD 885 cultivator 8rw \$5,000

Krause disc 12' tandem ... \$700

JD 2100 ripper\$7,500

Krause 5425 drill CALL

JD 7000 planter 6R \$2,000

JD 7300 planter 8R36-38-40 ...

KMC Cultivator.....\$1,000

2018 Industrias Am. blade

Wemco header trailer 32-42 ft.

160r.....\$10,000

NEW CALL

Jones Machinery, Inc. is

a dealer for Akron grain

.....CALL

.....\$3,750



MACHINERY **BUILDINGS / BLDG MTLS.** Guaranteed Used Truck Tires, most sizes. DIAMOND L SUPPLY GeeTire.com Dwight, KS Rossville, KS. · 1.888.608.7913 · 785-231-8397 29 ga 40yr ptd...... \$72.78/sq 29 ga 20yr ptd...... \$67.71/sq 29 ga Galvalume... \$57.22/sq Vermeer *Metal Roofing & Siding* Complete Bldg. Packages Doors, Insulation, Livestock Equipment, Scales, Waters, Bale Beds & Cake Feeders *Jobsite Delivery Available* NEW (prices subject to change) 604-605N net www.diamondlsupply.com R2300 & R2800 rakes TM800 Trail Mower VR-8, 10, 12 wheel rake Metal Panels **USED EQUIPMENT** & Accessories 605M net ramp floats 665M twine ramp THE VALUE LEADER. WE • 505l baler, \$3,500 WON'T BE UNDERSOLD • JD 700 rake hyd fold \$5,500 CALL FOR CURRENT • CFR960 HL bale processor, METAL PRICING like new round & square hav • DELIVERY AVAILABLE • grapple fork scales WESTERN METAL BP8000 w/ FinalCut 2 Locations • Best Service BP8000 w/Scales Louisburg, Kansas FEED MIXERS FA-550 Feed wagon 1-800-489-4100 To view all of our New & HAYS, KANSAS Used Equipment, please 1-800-770-2725 check out our website: www.sloophook.com or give us a call: 785-828-4706 Sloop Sales & . ST 111 Hook's Repair Inc. Lyndon, KS 66451 STEEL BUILDING **INVENTORY SALE I-Beam Construction BUILDINGS / BLDG MTLS.** Easy Bolt-Up Design 40x65, 60x90, 100x150 SMITH POSTYARD Many Others Available Hedge Post **Delivery Available** (800) 369-3882 **JEFF SMITH** www.toplinebuildings.com 620-496-8956 sales@toplinebuildings.com Solid Don't trust your grain to anything less. When it's time for harvest, you have days, not weeks, to get your grain out of the field and safely stored. That's why Brock grain systems are built to deliver day-to-day reliability and long-lasting durability to protect your crop and your livelihood. BROCK SOLID® means your grain storage, handling, conditioning and structures will stand up to the challenge. Contact us today, Lynn Kohake BROCK 785-336-1692 - BROCK SOLID'-Authorized Independent Deale Storage | Handling | Conditioning | Structures

\$40,000
1995 JD 8300 tractor MFWD
6,700 hrs\$54,000
-, +- ,
Akron GT T4010 grain bagger.
CALL
1990 JD 853A rowhead
\$10,500
JD 635 flex draper\$43,000
JD 635D draper\$21,000
2008 JD 608 cornhead 8x30
\$18,500
JD 644 cornhead\$4,750
JD 612 cornhead 12R.\$27,000
2007 JD 7630 tractor CALL
CIH 2162 flexhead \$35,000
CIH 2208 cornhead 8x30
\$11,000
2000 CIH 1020 felxhead 30'
\$6,000
'09 CIH 2010 rigidhead \$5,000
CIH 2020 Flexhead 30'. \$9,500
JD 914 pickup head \$7,500
Agco Gleaner 3000 cornhead
8R\$11,000
'07 Agco Gleaner 3000
cornhead 8R30\$16,000
Brent 420 grain cart \$4,500
EZ Trail 510 grain cart\$7,500
Unverferth Gravity Wagon w/
augerCALL
2010 Haybuster H1130
\$45,000
Haybuster H110 tilt tubgrinder.
CALL
Bearcat tubgrinder \$4,000
JD 569 premium round baler
\$23,500
2013 MF WR9740 windrower,
845 hrs\$65,000
ID 400 rotan boo \$1.750

JD 400 rotary hoe \$1,750 2003 JD 455 grain drill \$18,500 SF 9433 NT drill 40' CALL



baggers & unloaders. Give us a call! Complete listing on our web: www.jonesmachineryinc.com **BUY/SELL/TRADE DAILY** Smith Center, KS 785-282-3000 785-282-0432 Cell 785-686-4005 Evening Calls Welcome MACHINERY, **TumbleWeed Auction Co. LLC** 935 E HWY 36 Smith Center, KS 785-282-5419

www.TumbleweedAuctionKS.com

TumbleWeed Auction Co. LLC is taking consignments at anytime & has joined up with Jones Machinery, Inc., with 50 years knowledge in used farm equipment. Online auctions provided by AUCTIONTIME.com with absolute & reserve option available. Call or stop by today!

SHUCK IMPLEMENT IN STOCK- NEW MASSEY FERGUSON HESSTON 2900 SERIES

2006 Case IH 1200 16 row

30 stacker planter

2008 Gravely 152Z Zero turn lawnmower Kohler 23Hp, 52" deck kept inside 425 hrs, stk#5767.....\$4,400 2017 Krause 8005-25 Excelerator vertical tillage 22" 6MM Excalibur 32-Flute blades. front mounted Castering Wing Kevlar gauge wheels, manual disc gang Angie adjustment, hyd. Star wheels w/ flat spiral bar reel. Excellent cond., only used on 800 ac. Stk#6111 consigned\$56,900 2014 MF 2946 1,600 bales, auto mesh & twine, C1000 monitor, 21.5L-16.1 tires w/ suspension axle, bale ramp, fire extinguisher. Stk#5950 \$29,900 NH 616 rotary disc mower, very clean, kept serviced, 7'-8" swath. Stk#5301 consigned\$5,900 JD HX10 twin spindle rotary mower, chain shielding front & rear, 10'. Stk#5916\$5,495 1987 Case IH 3450 round baler, very clean, shedded, well maintained, approx. 3,500 bales, incl. monitor & operators manual. Stk#7343 consigned.....\$4,400 1983 JD 530 round baler w/ JD Bale-Trak monitor. Stk#7287..\$5.400 2015 MF 1736 Hydrostat, 4WD, platform, 245 hrs, engine block heater, very good cond., DL125 ldr. 66" skid steer bucket, CB75 backhoe, 12" bucket w/3 teeth. Stk#3710/3724.

Promotional Financing\$25,900 2015 MF2270XD 31,900 bales, single axle, roller Windguard, moisture sensor kit, roller bale chute w/ bale weight scales, C1000 monitor. Stk#3124 Promotional Finanacing \$76,900 2016 MF 1742 cab 4WD tractor,

110 eng. hrs, MF DL125 factory ldr pkg., 72" skid steer bucket, stereo, block heater, 4 rear wheel weights, R4 tires, stk#4359. Promotional Financing\$29,900 Sunflower 6631-29 VT tool, 14" Hydraulic rolling basket finisher, stk#5103 New In Stock 2012 MF 978 mechanical self leveling ldr, w/ MF 7619 Dyna 6 mounting brackets, very good cond., single lever Hyd. coupler release, 95" grapple bucket w/ Silage screen. Stk#7151 consigned \$8,900 2011 Terex PT100G forestry 1,150 hrs, stk#3067...\$49,900 2011 MF 8200-25 flex head, new SCH sickle last yr, guards good, kept shedded, needs few outer fingers on auger. Stk#1943\$19,00 2015 MF 4608 platform 2WD tractor, 755 hrs, 2 remotes, power shuttle, verv good cond., 67 PTO HP. Stk#6861\$22,900 Pick-up Bed from 2018 Dodge

SUPERIOR, NEBRASKA

Ram 2500, single axle, black, nearly new. Stk#Consigned\$2,200

IH 800 Cyclo 6-row air planter. Used last in 2014, with monitor, new tires & down pressure springs, corn, bean & milo drums, liquid fert, w/ Jon Blue pump. Stk#6448 ...

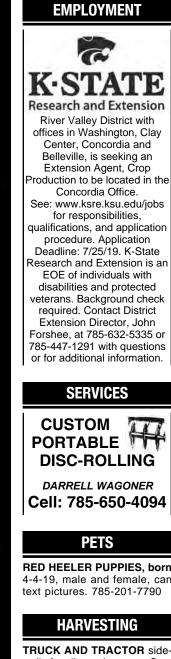
.....\$1,900 Diamond side mount mower, 64" wide, Ser#2142 CALL Utility service bed .. \$1,900 OBO

Lawrence, KS 785-843-8093 800-654-5191 Fax: 785-843-1014



MASSEY FERGUSON





walls for silage pit covers. Several loads available for delivery now! Call 785-243-3345

WANTED

NEW HOLLAND 328 manure spreader for parts. 620-794-5505

ASA disappointed by decision to reduce duties on subsidized biodiesel imports

The American Soybean Association (ASA) would like to express the concerns of soybean farmers across the country regarding the preliminary decision by the U.S. Department of Commerce (DOC) to reduce existing countervailing duties on imports of unfairly subsidized biodiesel from Argentina.

Under the preliminary decision announced July 2 by DOC, countervailing duties on unfairly subsidized biodiesel imports from Argentina would be reduced significantly, while antidumping rates would remain the same. The duties were imposed in 2018 following an in-depth analysis by DOC and the International Trade Commission. Just months after the duties were imposed, Argentina requested and DOC undertook a "changed circumstances" review.

Rob Shaffer, an ASA board member and chair of the association's Biodiesel and Infrastructure team said, "Given the administration's strong view on addressing unfair trade practices and leveling the playing field for U.S. producers, this decision

is surprising."

Shaffer, who grows soybeans in Illinois, continued, "Biodiesel is an important, homegrown fuel source, and it makes sense that the blend requirements established by EPA are filled by domestically produced biodiesel. Biodiesel is important to U.S. soybean farmers and also helpful to U.S. consumers."

Over the past year, ASA farmer-leaders participated in several meetings with the Department of Commerce, including with DOC secretary Wilbur Ross, to reiterate the impact of the subsidized imports on U.S. biodiesel producers and soybean farmers. ASA, along with the National Biodiesel Board-led Fair Trade Coalition, emphasized that there is no material change in the export tax rate for soybeans or its depressing effect on Argentine soybean prices relative to world market prices.

An abrupt reversal on the countervailing duties on subsidized imports would add to the challenges the biodiesel industry is facing, including great uncertainty due to the lapsed tax credit and Small Refiner Exemptions issued by the Environmental Protection Agency that undermine the Renewable Fuel Standard.

"While we continue to feel the impacts of hardline trade negotiations, the enforcement of countervailing and anti-dumping duties on unfairly subsidized biodiesel imports has been welcome. We don't want to see the administration back down on that front," said Shaffer.

The current duty rates remain in place until DOC issues a final decision in the review, expected in September 2019. If finalized, the existing countervailing duty rates on Argentine biodiesel would be reduced from their current average of 72% to 10%.

Soybean farmers urge the Department of Commerce to uphold its initial determination and continue to enforce trade rules that provide a level playing field for American soybean and biodiesel producers.

And leveling the playing field for U.S. producers, this decision facing, including great uncertainty due to the lapsed tax credit **Record rain hurting Kansas' first try** at growing hepp (AP) - P.J. Sneed walked you'd find flowers sitting in at name for the plant is cannabis mation to the state.

(AP) – P.J. Sneed walked through his small greenhouse in central Kansas checking on rows and rows of small hemp plants just waiting to be put into the ground.

The plants inside the greenhouse near Plevna looked rather healthy. Problematically, they looked better than the plants in the few acres he's already planted just outside of the greenhouse.

"Day one, we planted an acre and a half," he said. "Huge storm came through and it blew probably half the plants just over or out of the ground."

But looks can be deceiving. The roots of the hemp plants sitting indoors have run out of room in the small plastic containers they sit in, the same kind of containers you'd find flowers sitting in at a nursery.

That's because these plants should have been planted a few weeks ago. But like farmers of more traditional crops, Sneed's been delayed by the wet weather that's kept him from planting hemp in his fields.

People who signed up for an industrial hemp test program got licenses based on research proposals. But this year's unusual weather could skew the results of the studies, impacting the kind of information the state has to gauge the prospect of growing hemp in Kansas.

State officials want to better understand the potential for the specialty oilseed crop, colloquially known as industrial hemp. The scientific name for the plant is cannabis sativa, and it's the same plant that marijuana comes from.

The difference between whether or not the product of the plant is considered marijuana or industrial hemp is the amount of the psychoactive chemical THC that's present.

Lawmakers approved the pilot program last year. Each grower licensed to participate in the program is studying some aspect of hemp cultivation.

Some are looking into how much water is needed to grow hemp, while others are investigating how industrial hemp fits into regenerative agriculture practices such as using it as a cover crop or how it impacts soil health. Growers are also providing detailed planting and harvesting inforSo far this year, the state has received 392 applications and issued 248 – 192 of those approved licenses are for

growers. In total, 5,200 acres in 71 counties have been approved for growing hemp, even though it's likely total planted acres won't be close to that, KMUW-FM reported.

As of July 1, 680 acres of hemp have been planted in the state. That number is expected to grow significantly in the next few weeks as the ground across the state begins to dry out enough for planting that was originally planned to happen weeks earlier.

The state will issue a report at the end of the year analyzing the data gathered from all the projects. While the extraordinary weather will likely impact results, it's too early to know how much.

"Here in Kansas... we kind of have extremes from one season to another season, and, at this point, precipitation plays a large factor," said Braden Hoch, a hemp specialist for the Kansas Department of Agriculture.

Rain has delayed planting for some farmers, but the variety of hemp, and what the grower hopes to use it for, will also play a large role in how successful this year could be.

Hemp plants are generally grown for one of three things – its seed and grain, its fiber, or its floral material.

CBD oil typically comes from the floral material. Varieties grown for their floral material typically only need a 90-day period from planting to harvest, meaning there's still time to get those plants in the ground and still have a good chance at a successful harvest.

Page 19

Hoch said the state is ultimately trying to gather data to show whether or not hemp is a viable alternative crop for Kansas farmers, and this year's trial could help build that case.

But even with the optimism, some hemp farmers, such as Sneed, still worry plenty about how the wet weather stunted the growth of their plants.

"This year's crop, as wet as we are, will be affected across the board," Sneed said. "Whether it's CBD level or fiber level."

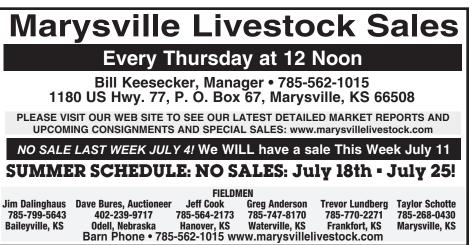
Alternatives for disposing of dead animals

By Brett Melton, River Valley Extension District livestock production agent

In the past, producers and veterinarians have had the pleasure of calling animal salvage companies to take dead livestock away to rendering facilities for processing. However, there are no longer pickup businesses operating. Since rendering is out of the question for the area, incineration, burial, and composting are the other options. I will also say, incineration is difficult for large carcasses, and it is also expensive. For arguments

sake, we will take incineration off the table. Burial, generally, would require a backhoe of some sort which a farm potentially would not have.

The last option for disposal of dead livestock is composting. Composting can be done with equipment and sup-



plies that are already on most farms. The only equipment needed for composting is a tractor with a front-end loader. Other materials needed are an absorbent material (old hav. straw, corn stalks, sawdust, or wood shavings) and a bulking material (spoiled silage/feed or scraped manure). To begin, place 24 inches of an absorbent material down to place the carcass(es) on. It is recommended to cut the animal open to speed up the process. If you are composting a ruminant, you must at least puncture the rumen to allow gas to escape. Next, place 24-36 inches of moist bulking material on top of the carcass and base laver. The correct moisture of this material will fell like a wet sponge. This envelope layer should cover the entire animal. If the animal is not completely covered, then odor can

escape and will allow access for coyotes and other scavengers. The last step is to cap the pile with another 12-24 inches of dry carbon material – like the base layer.

For effective composting excess water should be diverted from the pile. Make a small trench to allow water to run away from the pile if necessary. After 90 days of composting the pile will need to be turned or mixed. Depending on the size of the carcass(es), another 90 days may be required. It is not recommended that piles are turned in the winter. After composting, there may be some large bones in the piles. These large bones can be buried or disposed of in the normal trash. Fully composted piles should be applied to the field according to nutrient management plans.

As a reference, single 1,000-pound animals will require about four bales to construct the base layer and cap. If you do not have enough carbon material, there is no point in attempting to compost. The carcass(es) must be completely covered for successful composting.

One way of disposing of animals is to do nothing and letting Mother Nature take care of the carcass(es). However, this method is not preferred and is illegal in the state of Kansas (KSA 47-1219). All livestock operations experience death loss, and a plan needs to be in place to deal with these losses. For more information call Brett Melton in the Concordia River Valley Extension Office by calling 785-243-8185 or emailing bmelton@ksu.edu.

CLASSIFIEDS FOR ALL YOUR ADVERTISING NEEDS 785-539-7558

GKASS&GKAIN



Yard & Garden Tips By Gregg Eyestone

Poison Ivy Control

I recently had the good fortune to travel to Washington D.C. with some of our 4-H youth on a bus. The ride was as good as a bus trip can be except for my small case of poison ivy. Apparently, I came in contact with it while mowing in preparation for the trip.

Poison ivy grows in our area and I saw lot of it growing all the way to and in DC. On the plus side, the three leaflet leaves turn a beautiful red in the fall. As long as you don't come in contact with any open poison ivy plant wounds, you shouldn't have a reaction.

Several methods can be used to remove poison ivy and other weeds. All plants can be killed by continually removing the leaves and starving the plant. This will require persistence. Prune as low on the plant as possible and keep removing any new growth.

Protective clothing is par-

ticularly necessary for poison ivy since cutting it will expose the oily sap that causes the skin rash. Use lots and lots of cold water and soap to clean any exposed skin, clothing and tools.

Putting black plastic or bucket over the plant is another way to get rid of it. This method will take a while but once in place won't need additional attention like the pruning method. It may take all summer to kill it.

The use of an herbicide is the quickest method of control. It can either be foliar-applied or on some labels stump applied. Two commonly selected herbicides are triclopyr and glyphosate.

Always read and carefully follow all directions on the container label. You will then be using the product in its safest and most effective manner. If you have leftover pesticides,

you may take them to the local household hazardous waste facility. The Riley County site is at 6245 Tuttle Creek Boulevard.

People bring plant samples in to the Extension office for identification. Some samples like poison ivy, a picture brought in or sent by email are preferred by me. When a sample or picture doesn't work, the Extension agent can drop by and take a look.

If you have a problem or question on gardening, I hope to hear from you.

If you would like additional information on a horticulture topic, please 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 and at www.riley.ksu.edu

Collaboration crucial to solve global food and environmental challenges

The U.S. Farmers & Ranchers Alliance (USFRA) is igniting efforts to connect the agriculture and food industries to solve one of humankind's greatest challenges: How to nourish an unprecedented population while protecting and enhancing the world in which we all live.

"There is no 'or' in this equation. We must grow and raise healthy foods to feed billions of people and we must do so in a way that positively contributes to the environment," said Erin Fitzgerald, CEO, USFRA. "There is no other sector that can provide nourishment for our communities while drawing down carbon into our soils and enhancing ecosystem services like the food and agriculture sector."

According to American Farmland Trust, agricultural land in the United States disappears at a rate of 175 acres per hour due to business and residential expansion. That loss of land, combined with climatic changes and a growing global population, is forcing farmers and ranchers to protect and optimize the environment while increasing the amount of food they produce per acre.

"We are proud to carry the responsibility of being a trusted source for food," said Chip Bowling, USFRA chairman and a seventh-generation farmer from Newburg, Md. "But farmers and ranchers need the support and collaboration of food makers and industry

stakeholders to advance existing technologies and management practices."

"Our future is dependent upon contagious collaboration between the food and agriculture value chain," added Fitzgerald. "I'm urgently asking all innovators, food makers, non-profit groups and financial institutions to join us as we create a strategic road-map to meet these challenges of the next decade."

In early June, nearly 100 top leaders across agriculture, technology, NGOs, finance and investment, and food companies gathered at a 1400-acre farm an hour outside Washington, D.C., to discuss the urgency of the issues and collaborate on a vision. The Honor the Harvest Forum, created by USFRA and The Aspen Institute, featured working sessions among stakeholders that centered on the ability of agriculture to draw down greenhouse gases and adapt to a changing climate, while growing shared value across the food chain.

"We're talking about doing new things that haven't been done before," said Chris Adamo, vice president of Federal and Industry Affairs, Danone North America. "So we're going to need different people coming up with ideas that frankly I haven't heard of, probably farmers haven't heard of, and sometimes consumers haven't heard of. We've all got to be sitting down and really working on

Studies have found that farming and ranching will play a critical role in solving climate change issues. Agricultural soils have the capacity to draw down and store carbon through the photosynthesis process. Through climate smart agriculture practices, farmers and ranchers can optimize for production, improve resiliency, minimize fertilizers and other inputs, improve water use and quality, all while storing carbon for future generations.

"This idea that agriculture provides solutions to some of the biggest problems humanity faces is not something new," said A.G. Kawamura, former Secretary of the California Department of Food and Agriculture. "It's something that needs to be re-thought through and more importantly re-communicated that we're all in this together."

In the coming months, the leaders who attended Honor the Harvest will be outlining a path forward to a more sustainable food system, and define how food systems could look in 2030.

"We can have a lot of strategies," said Chrstine Daughtery, vice president of Sustainable Agriculture & Responsible Sourcing, PepsiCo. "We clearly need vision. But at the end of the day, we need to roll up our sleeves and we need to get the work done."

U.S. beef exports slow

Stronger domestic beef demand has prompted an increase in imports from major suppliers, a trend that is expected to continue for the rest of the year. At the same time, U.S. beef exports continued to slow from year-ago levels, according to USDA's Economic Research Service (ERS).

The agency said total U.S. beef imports were up 6% at 1 billion pounds, and the 2019 annual import level is expected to exceed 3.03 billion pounds.

Meanwhile, U.S. beef exports slumped by 4% in April from year-ago levels, which held year-to-date exports to nearly 5% below the same period in 2018. Most of the declines in U.S. beef exports were to Canada, Japan and Hong Kong.

ERS also cited increased competition from Australia, Canada and New Zealand, which were granted tariff exemptions under the Trans-Pacific Partnership Agreement (TPP), as negatively affecting U.S. beef exports.



Creep feeding beef calves increases your profits!

Key 16 Calf Creep Pellet is recommended 30 to 60 days before weaning. The extra weight gain will produce \$25 to \$50 return per

calf over creep feed costs. Delivery in bulk or bags is available. Contact your local Key Feeds representative.



CALL KEY FEEDS TODAY

Fourth & Pomeroy

Plant nutr ient analysis for corn By David G. Hallauer, much water, too little water, **District Extension Agent**, compaction, or even nutrient

Crops & Soils/Horticulture

With a year like this, it's not uncommon to see uneven corn plants within the stand. Some may simply be shorter. Others may be exhibiting shortened internodes or discoloration. The causes are as numerous as the symptoms: too

deficiencies.

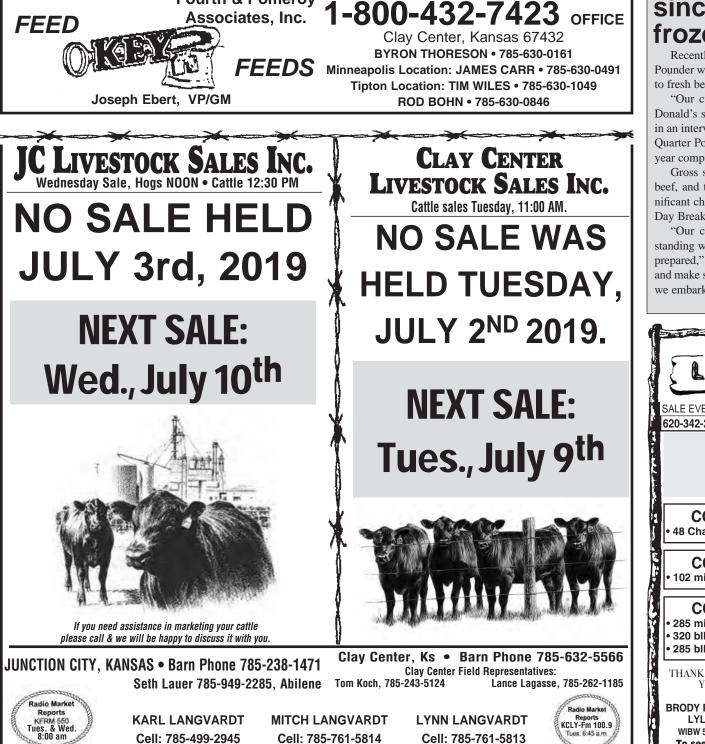
From a nutrient deficiency standpoint, we often talk about the value of soil tests. Another excellent in-season tool you might want to consider - either for diagnostic purposes or to monitor nutrient levels - is plant analysis.

When used for diagnostic purposes, collect comparison samples from both the good and bad areas. Soil samples may be helpful as well, to help define the root of the problem more accurately. For plants less than 12 inches tall, submit the entire plant after it's cut off at ground level. From 12 inches to reproductive stages, collect the top, fully developed (leaf with a collar) leaf. After reproduction, collect the ear leaf (the one below the uppermost developing ear).

Nutrient monitoring in-season can be an excellent way to monitor the crop as well as help solve diagnostic problems. To learn more about what you should test for and what to expect from the subsequent report, check out a recent article from KSU Nutrient Management Specialist Dr. Dorivar Ruiz Diaz available as part of the weekly KSU Agronomy eUpdates available online at https://webapp.agron. ksu.edu/agr_social/article/ plant-analysis-for-testing-nutrient-levels-in-corn-341-1 or by e-mailing me at dhallaue@ ksu edu

McDonald's Quarter Pounder sales up 30% since switching from frozen to fresh beef

Page 20



Recently McDonald's announced that sales of its Quarter Pounder were up 30% on average since switching from frozen to fresh beef.

"Our customers are loving it," said Marion Gross, Mc-Donald's senior vice president of supply chain management, in an interview with USA TODAY. "We sold 40 million more Quarter Pounder burgers nationally in the first quarter of this year compared to the quarter in 2018."

Gross said the burgers are hotter and juicier than frozen beef, and that the transition to fresh beef was the most significant change the company has made since it rolled out All Day Breakfast in 2015.

"Our customers tell us they have an interest in understanding where it comes from, what goes into it and how it is prepared," Gross said. "We're trying to be more transparent and make some necessary changes to delight our customers as we embark on our journey to be a better McDonald's."



EPA favors oil refiners over corn

On Friday, the Environmental Protection Agency (EPA) released the proposed Renewable Volume Obligation (RVO) rule for 2020. Once again EPA has failed to account for lost volumes due to refinery exemptions and uphold the president's commitment to the Renewable Fuel Standard (RFS).

"We are frustrated the EPA did not account for potential waived gallons going for-

ward in the proposed rule," said National Corn Growers Association president and Nebraska farmer Lynn Chrisp. "If the EPA continues to grant retroactive waivers, the RVO numbers are meaningless and the EPA is not following the law. Farmers are facing a very tough economic environment and the continued waiver abuse chips away at farmers' bottom line."

Since early 2018, the EPA has granted 53

RFS exemptions totaling 2.61 billion ethanol-equivalent gallons of renewable fuel. There are currently 38 pending petitions for 2018.

EPA also failed to uphold the D.C. Circuit Court's 2017 ruling, requiring the Agency to account for 500 million gallons it improperly waived in 2016. "There is no reason for the EPA to not account for those gallons," Chrisp added. "It appears the EPA continues to favor

ant because scientists can now

begin to target the supply of

hydrogen to methanogens as

a new way of reducing animal

methane emissions, AgRe-

search said. Work will now

focus on screening specific

compounds that can reduce

the supply of hydrogen to the

methane producers without

big oil and not uphold the RFS. This narrative is getting old. It is time for the EPA to follow the law to ensure the waivers do not destroy volume requirements."

Page 21

NCGA thanks Secretary Perdue and his team at USDA for their continued support and work on this issue. Perdue has been instrumental in making sure the voice of the American corn farmer is heard.

International team finds targeting hydrogen in rumen may reduce methane emissions

An international collaboration led by New Zealand scientists has made an important discovery in their efforts to help lower methane emissions from animals, according to an announcement from New Zealand's AgResearch.

AgResearch explained that the animal itself does not produce methane; rather, a group of microbes known as methanogens live in the stomach (rumen) and produce methane mainly from hydrogen and carbon dioxide when digesting feed.

The international team - which involved researchers from AgResearch and the

University of Otago in New Zealand, the University of Monash in Australia, the University of Illinois in the U.S. and Hokkaido in Japan — has for the first time identified the main rumen microbes and enzymes that both produce and consume that hydrogen.

The findings are import-

responses, most with the wrong answer.

compromising animal performance.

Additionally, according to a new study reported in Science Advances, published by the American Association for the Advancement of Science (AAAS), common dairy cows share the same core group of genetically inherited gut mi-

crobes, which influence factors such as how much methane the animals release during digestion and how efficiently they produce milk. By identifying these microbes, the research may enable scientists to manipulate the rumen.

similar Jrns meat and a trivia question asking viewers if they could distinguish the

ingredients for the Impossible Burger, Beyond Meat and a spe-

cific brand of dog food. He said the tweet received thousands of

an event with Patrick Brown, the founder of Impossible Foods.

Mitloehner said Brown confessed to eating dog food and called

During the interview, Mitloehner said he once had dinner at

"There's no question his declared mission is to end animal

In an interview with AgriTalk last week, University of California Davis professor Frank Mitloehner said the ingredients in two of America's leading plant-based alternative proteins are quite similar to those found in dog food.

"When you look at Impossible Burger or Beyond Meat, you will find that they have 21 or 22 highly processed ingredients. In fact, so processed that you are hard-pressed in identifying the difference between those items, versus let's say, pet food," said Mitloehner.

agriculture by 2035," Mitloehner said. "He has a ways to go On his Twitter account (@GHGGuru), Mitloehner posted

emit 89% fewer greenhouse bad for the environment

the ingredients wholesome.

the "consumer is right" and that it's up to producers to win them over. "The main answer is the labeling question," Perdue said. "Consumers ought to know what it is and where it came from."

because his market share is very small at this point.

Mitloehner says he is not against alternative foods but stands against the way it is being marketed against farmers.

"I'm all for alternatives, okay. I don't want to be misunderstood. People are saying I don't like alternatives. If people want to eat it, eat it. What I have a beef with is he makes his business on the backs of our farmers. And he publicly describes the beef sector as filthy, as inhumane, as unsafe, and that is just intentionally misleading. That's the problem I have."

Five-year-old dies in farming accident

(AP) - Authorities say a five-year-old boy has died in a farming accident in Kansas.

The Reno County Sheriff's Office says in a Facebook post that Adam Schrock died last Tuesday afternoon near Haven. The post says his clothing became wrapped up in a mechanical part of a tractor that a family member was working on.

Haven is about 30 miles northwest of Wichita.

USDA Sec. Perdue tr he Impossible Burger U.S. Secretary of Agriile" of real beef. Perdue and Brown agreed that less water, 96% less land and

culture Sonny Perdue recently visited Impossible Burger headquarters in Redwood City, Calif., where staff cooked up an Impossible Burger for him. He said it tasted "very good," and that it was a "good facsim-

Impossible Foods is a critic of the beef industry, and its executives have said their goal is to eliminate meat derived from cattle as a significant part of the food system. The company says its burgers use 87%

gases than beef from cows. And while Perdue praised the company's innovation, he said he didn't agree that beef was Concluding the taste test,

Co-tounder o device Garmi (AP) - Gary Burrell, who Min Kao. The Olathe-based

co-founded GPS device-maker Garmin and helped grow the startup into a global operation, has died. He was 81.

Garmin spokeswoman Krista Klaus says he died at his home in southern Johnson

County from "complications relating to longstanding health issues.'

He used his background working at marine and aviation electronics companies when he started Garmin in 1989 with fellow engineer

company now has more than 13,000 employees in 60 offices around the world. It recorded earnings of \$3.3 billion last

and a blessing to have known this amazing man."

FQ



place a classified ad or subscribe online to GRASS & GRAIN grassandgrain.com

year. Burrell retired in 2002 and VALENTINE LIVESTOCK AUCTION CO. Valentine, Neb.

Listings:

like the look!.

continued to serve as Garmin's co-chairman until 2004 when he was named chairman emeritus. Kao said in a news release that it was a "great privilege

BELLEVILLE 81 LIVESTOCK SALES Junction Hwys 36 & 81 Belleville, Kansas

CATTLE SALES EVERY FRIDAY • 9:30 AM

July 1st Sale: Very large run of Slaughter cows & bulls.

7 cow buyers here, a strong market on all classes. Fat-Fleshy Cows: \$73.00-\$83.00. Medium Flesh Cows: \$64.00-\$73.00; Lean Cows: \$56.00-\$71.00. Very Thin & Poor Cows: \$40.00-\$54.00. Big run of Bulls: \$77.00-\$94.00. A lot of bulls \$85.00 & up.

We have a very good cow & bull market every week. Bring us your cows & bulls, we get top dollar!

CATTLE SALE: FRIDAY, JULY 12

Auctioneer Ethan Schuette 785-541-1027 • 785-527-2258 Fieldman Brad Gilliam, Washington, KS • 785-747-7580 For Market Reports, and Early Listings Website: Belleville81.com Barry & Angii Kort, Owners • 785-527-2258 Thanks for your business!

Holton Livestock Exchange, Inc. 1/2 mile East of Holton, KS on 16 Highway

Livestock Auction every Tuesday at 12 NOON Serving the Midwest Livestock Industry for 67 Years! ****STARTING TIME: 12:00 NOON****

We had NO SALE on July 2!

NE KANSAS ABSOLUTE REAL ESTATE & PERSONAL PROPERTY AUCTION: LIVESTOCK STARTING & GROWING FACILITY SATURDAY, JULY 13 STARTING at 11 AM, VALLEY FALLS, KS 4 TRACTS OF REAL ESTATE SELLING TO THE HIGHEST BIDDER KELLY & KIM KIRKHAM, sellers HARRIS REAL ESTATE & AUCTIONS, LLC, HOLTON, KS DAN HARRIS, BROKER & AUCTIONEER 785-364-7137 See website for complete details & pics: www.holtonlivestock.com SATURDAY, JULY 20 STARTING at 10 AM, MORRILL, KS Tractors • Harvesting • Semi & Grain Trailer • Machinery • ATV • Trailers • Miscellaneous

FOR LARRY & JUDY STOVER

Dan Harris, Auctioneer & Owner • 785-364-7137 Danny Deters, Corning, Auct. & Field Rep • 785-868-2591 Dick Coppinger, Winchester, Field Rep. • 913-774-2415 Steve Aeschliman, Sabetha, Field Rep. • 785-284-2417 Larry Matzke, Wheaton, Field Rep. • 785-268-0225 Craig Wischropp, Horton, Field Rep. • 785-547-5419 Barn Phone • 785-364-4114 WEBSITE: www.holtonlivestock.com

EMAIL: dan@holtonlivestock.com

45bwf (F-1) (3-8 yrs) bred Ang (Sitz); cf 8-10 for 30 days. Long sided
Dusty Paxton (308-530-1518)
39angus (3-5 yrs) bred Ang (Slagle, Ostrand); cf 9-1 for 40 days. Always good
HRMart McNutt (308-520-7535)
30blk (3 bwf) (3-8 yrs) bred Ang cf 8-25 for 70 days HRNick Simmons
45blk, few bwf (8-14 yrs; 1300-1450#) bred blk Ang cf 9-1 for 60 days HR
Beel Bros. (Frank @ 402-382-8641)
23blk, bwf (2 hd) (15 @ 3 yrs, 8 @ 4 yrs; 1200-1300#) bred Ang (Rishel); cf
8-28 for 60 daysBestol & Masek
11rd Ang (9-1st & 2nd cf, 2 solid mouth) bred rd Ang (Calvo); cf 8-10 for 60
days Chad Tetherow
Pairs:

THURSDAY, JULY 18, 2019

Special Fall Bred and Regular Sale

S.T. 10:00 on weigh-ups; 2:00 on bred females

70 ...Hereford (2 ½ yrs; 1200#) bred blk Ang cf 8-1 for 50 days. Starting to show,

120 rd Ang (47 @ 3-4 yrs; balance 5-9 yrs) bred rd Ang (Cross Diamond & Beck

180 blk & Ang and rd Ang (25 hd) (3-7 yrs; 1200-1350#) rd bred rd Ang blk bred

blk Ang (Schelskie); cf 9-1 for 45 days. Complete dispersion of a true fall calv

Swenson Farms (Todd Swenson) (Sheridan @ 605-354-212)

ton); cf 8-20 for 30 days. Known for outstanding genetic inputs.

.....Turner Ranch LLC (Lawrence @ 402-376-5248)

... Paxton Rn (John Warren @ 308-650-9000)

70 .. Ang (short term; 1450#) w/June born Ang cfs at side Pending

View our special sales online @ cattleusa.com Office: 1-800-682-4874 or 402-376-3611 Greg Arendt, Mgr., C: 402-376-4701 Greg Nielsen, Fieldman, C: 402-389-0833 Jake Hopwood, Fieldman, C: 308-627-4828 For complete listing visit our website: www.valentinelivestock.net

Ξ LIVESTOCK AUCTION, INC.

316-320-3212

Fax: 316-320-7159 2595 SE Highway 54, P.O. Box 622, El Dorado, KS 67042

We Were CLOSED JULY 4! We do have a GOOD RUN planned for July 11!

EARLY CONSIGNMENTS FOR THURSDAY, JULY 11: EXPECTING 1,200-1,500 HEAD

- 4 loads blk Northern steers, off brome, 850 lbs.
- 5 loads mostly blk steers, off brome, 900 lbs.
- 4 loads mostly black steers, off brome, 850 lbs.

We welcome your consignments! If you have cattle to consign or would like additional informa-tion, please call the office at 316-320-3212

Check our website & Facebook for updated consignments: www.eldoradolivestock.com

To stay up to date on our latest announcements you can "Like" us on Facebook

Chris Locke (316) 320-1005 (H) (316) 322-0675 (M) Larry Womacks, Fieldman (620) 394-3273 (H) (620) 229-0076 (M)

Steven Hamlin (602) 402-6008 (H) (620) 222-1199 (M) Van Schmidt, Fieldman (620) 367-2331 (H) (620) 345-6879 (M)

Cattle Sale Every Thursday 11:00 AM

Eureka Livestock Sale

P.O. Box 267 Eureka, KS 67045 620-583-5008 Office 620-583-7475

Sale Every Thursday at 11:30 a.m. Sharp

Like Us On Facebook!

NO SALE WAS HELD JULY 4

EARLY CONSIGNMENTS FOR JULY 11

- 225 mostly blk hfrs, 775-875 lbs, open, off the grass.
- 125 Red Char strs, 875-950 lbs, open, off the grass.
- 50 blk bwf strs & hfrs, 500-750 lbs, off the cow.
- 20 blk bwf Fall calving cows, 5-8 yrs old. Bred to Angus bull

We appreciate your business!

Ron Ervin - Owner-Manager Home Phone - 620-583-5385 Mobile Cell 620-750-0123 Austin Evenson- Fieldman Mobile Cell 620-750-0222 If you have any cattle to be looked at call Ron or Austin

HORSE AUCTION

CONSIGNMENT HORSE SALE

Anderson County Sales Co., LLC Garnett, Kansas Saturday, July 13th • 1:00pm

> SELLING Horses - Ponies - Donkeys

Tack to Sell First

All out of state animals need Coggins.

For more information call: Ron Ratliff • 785-448-8200 Earnie Schenker • 417-309-9352 Sale Barn • 785-448-3800

Grass & Grain, July 9, 2019 **Specialty proteins** and antibiotics in nursery pig diets

The Veterinary Feed Directive and concerns about antibiotic-resistant bacteria have changed the way the pig industry utilizes antibiotics in the feed. Gone are antibiotics used at sub-therapeutic levels. Pork producers are now looking at alternative strategies, especially in the diets of newly weaned pigs.

Spray-dried plasma has been a staple feed additive in nursery diets for the last few decades and has been repeatedly shown to improve pig performance. Dried egg additives, produced by hyper-immunizing hens against pathogens harmful to pigs and drying their eggs into a product with concentrated antibodies, are newer to the market.

Iowa State University conducted an experiment to evaluate the effects of spray-dried plasma protein or dried egg protein, with or without antibiotics, on the growth and health of nursery pigs. The 42-day experiment was conducted at a commercial weanto-finish research facility with 1,230 pigs. There were six dietary treatments arranged as a 3×2 factorial: specialty proteins (none [CON], spraydried plasma protein [SDPP] or dried egg protein [DEP]) fed without or with in-feed antibiotics. Diets were fed in four phases with the last two being common diets. Antibiotics were included in phases 1-3, and SDPP and DEP were included at 3.0% or 0.20% in phase 1 and 2.0% or 0.10% in phase 2, respectively.

The pigs experienced two health challenges during the experiment. Porcine rotavirus and Salmonella were diagnosed during week two and porcine reproductive and respiratory syndrome virus and influenza were diagnosed during week five. Mortality

was 2.0% and morbidity, pigs removed due to illness or injury, was 6.3%. These removal rates were not influenced by diet. However, including SDPP or DEP reduced the number of individual medical treatments compared to the CON diets by 25% (P=0.001).

For the overall nursery period and in the absence of antibiotics, SDPP and DEP improved ADG by 9% and ADFI by 6% compared to CON. When antibiotics were included in the diets, these proteins did not have an effect compared to CON. However, SDPP increased gain by 7% and feed intake by 5% over DEP (P 0.10).

The overall cost of gain was calculated using the cost of experimental diets (prices from mid-2018 at the time of the study) and individual medical treatments; no other costs were considered. Without antibiotics in the diets, the cost of gain for CON and DEP was similar, but SDPP increased cost of gain by 7%. In the presence of antibiotics, SDPP increased the cost of gain by 9% and DEP by 5% compared to CON. Antibiotics tended to decrease the cost of gain by 3% in the CON diet (P=0.064).

The research showed that specialty proteins positively impacted pig performance in antibiotic-free diets but not when antibiotics were included. However, the proteins benefited pig health by decreasing individual medical treatments regardless of antibiotic use.

As the pork industry continues to decrease its use of antibiotic growth promoters, specialty proteins such as spray-dried plasma or dried egg could be a practical way to help pigs through the transition at weaning. In this example, the DEP appeared to be the more cost-effective option.



Stephanie and Doug David, Bow Creek Ranch

Yak, yak, yak. That might be a teenager's description of the sound of some long-winded grownup - such as me. But yaks are actually a type of cattle. These animals originated in the Himalayas thousands of vears ago. Now they are being raised and marketed by an innovative couple in rural Kansas. Many thanks to Carolyn Applegate and Norton County magazine for this story.

Stephanie and Doug David are the owners of Bow Creek Ranch in Norton County. Doug grew up here and met and married Stephanie, who is from Nebraska. They farm and raise Angus cattle near Lenora.

"In 1997, I was at the Denver stock show," Doug said. The stock show was hosting a specialty animal sale where yaks were being sold.

"I tried the yak meat and really liked it," Doug said. He decided to try raising them.

Yaks are an unusual kind

of bushy-haired bovine with handlebar-shaped horns and massive shoulders. As mentioned, they originated in the Himalayan mountains of Tibet. Tibetan culture revolves around the yak, similar to how Native American Plains Indian culture revolved around the buffalo. However, yaks are not related to the American buffalo, which are technically bison.

Today, Stephanie and Doug have 200 head of yak to go with their registered quarter horses and Angus cattle at Bow Creek Ranch, along with their retail meat business.

"We have breeding yaks and meat yaks," Stephanie said. "We sell a full line of their meats and all-natural beef from our Angus herd."

The yaks are a multi-purpose animal. Their soft undercoat of hair is used for fiber, but they are not shorn like a sheep. Instead, special brushes comb out the hair. The Davids have this fiber processed in Phillipsburg at the Shepherd's Mill store, which we have previously featured.

The soft cashmere-like yak fiber can be used for weaving or knitting. "It started with yak woolen socks," Stephanie said. "Now it's being used for sweaters, jackets, gloves and beanies. There is no lanolin in the fiber. People who are allergic to wool can wear our clothing."

Yak milk is high in butterfat and is said to produce exceptional cheeses, butter, and yogurt. Yaks can even be used as pack animals. Then there is the meat.

"Yak meat is naturally redder and sweeter than beef," Doug said.

"It also offers a health benefit," Stephanie said. Yak is estimated to be better than any other meat except ground turkey when it comes to cholesterol.

"We like to take the yak meat to weekend shows," Stephanie said

"Once you get someone to try it, most people like it," Doug said. The Davids have their yak meat processed into traditional meat cuts as well as summer sausage, jalapeno sausage, ring baloney, sticks, and jerky. It is all-natural. The Davids have shipped yak meat to every corner of the U.S., from Vermont to California.

They estimate there were only 600 yaks in North America 30 years ago. Now, there might be more than 5,000. Yaks are said to be easy keep-

ers, which means they eat only a third of what domestic cattle might consume.

As one might expect of a high-altitude animal, yaks do not do well in the southern U.S. "High humidity is not good for the yaks," Doug said. "From here to Canada, they do really well."

As one might also expect, the calves are really hardy. "We calve quite a bit in the winter time," Doug said. They are now using yak bulls on Angus heifers.

Stephanie got involved in promoting this unique animal. In 2017, she became president of the International Yak Association. That's quite an honor for someone from a rural community such as Lenora, population 235 people. Now, that's rural.

For more information about yaks, go to www.iyak. org. For more information about the Davids, go to www. bowcreekranch.com.

Yak, yak, yak. No, that's not just a long-winded grownup. Yaks have increased in number in North America, with benefits for both growers and consumers. We salute Stephanie and Doug David for making a difference with their agricultural innovation. With that, I'll stop yakking.

Audio and text files of Kansas Profiles are available at http://www.kansasprofile.com. For more information about the Huck Boyd Institute, interested persons can visit http:// www.huckboydinstitute.org.

Free Astronomy Night to be hosted by Flint Hills Discov-Join the Flint Hills Discov-this world! and activities from our part-are welcome to

ery Center (FHDC) on Friday, July 12 from 8:00-11:00 p.m. for Astronomy Night. Celebrate the 50th anniversary of the Apollo 11 moon landing during this free community event that is sure to be out of

Astronomy Night is free and open to the public. The event will take place at Northeast Community Park, located at 680 Knox Lane, Manhattan, Kansas 66502.

Enjoy outer space crafts

ners the Manhattan Public Library and the Marianna Kistler Beach Museum of Art from 8:00-9:30 p.m.

Then at 9:30 p.m., join K-State Physics Professor Chris Sorenson as he leads us in astronomical viewings of the moon, planets and stars through high-powered telescopes. Amateur astronomers

are welcome to bring their own scopes!

In the event of rain, Astronomy Night will be rescheduled for Saturday, July 13.

To learn more about Astronomy Night with the Flint Hills Discovery Center, visit www.flinthillsdiscovery.org/ summerofscience, call 785-587-2726 or visit 315 S. 3rd St. in Manhattan.



Grass & Grain Weather Report July 10, 2019 Seven Day Forecast **Today's Local Outlook In-Depth Local Forecast** Today we will see partly cloudy skies with

Our CONSIGNMENTS can now be viewed after 12 Noon on Mondays by going to WWW.grassandgrain.com & logging onto the online subscription

FOR INFORMATION OR ESTIMATES.

REZAC BARN ST. MARYS. 785-437-2785 **DENNIS REZAC** ST. MARYS, 785-437-6349 DENNIS' CELL PHONE 785-456-4187 KENNETH REZAC ST. MARYS 785-458-9071

LELAND BAILEY TOPEKA, 785-608-4005 ST. MARYS, 785-456-4943 LYNN REZAC **REX ARB** MELVERN, 785-224-6765

Toll Free Number.....1-800-531-1676

Website: www.rezaclivestock.com **AUCTIONEERS: DENNIS REZAC & REX ARB**



Livestock Commission Company, Inc.

St. Marys, Ks.