Blew Partnership wins regional environmental stewardship award

Blew Partnership of Castleton has been selected as one of seven regional finalists for the Environmental Stewardship Award Program (ESAP). The award, announced during the 2019 Cattle Industry Summer Business Meeting July 30, recognizes the operation's outstanding stewardship and conservation efforts. This year's regional winners will compete for the national award, which will be announced during the 2020 Annual Cattle Industry Convention in San Antonio, Texas in February.

Established in 1991 by the National Cattlemen's Beef Association to recognize outstanding land stewards in the cattle industry, ESAP is generously sponsored by Corteva Agriscience, McDonald's, USDA Natural Resources Conservation Service (NRCS), U.S. Fish and Wildlife Service, and the National Cattlemen's Foundation.

"America's cattle producers are the original stewards of the land. They rely on a healthy ecosystem, including land, air and water resources, for their livelihood and they understand better than anyone the benefits of caring for those resources," said NCBA president Jennifer Houston. "The lands we manage as farmers and ranchers are only entrusted to us for a short time and farmers and ranchers across



Blew Partnership was recognized for their stewardship and conservation efforts by being selected as one of seven regional finalists for the Environmental Stewardship Award Program.

the nation are committed to passing those resources to the next generation in a manner which ensures their future success. This year's ESAP nominees Award Program exemplify the greatness of our industry and they share a common the common goal of bettering our industry through outstanding stewardship practices."

The Blew Partnership has been in the Blew family for five generations. Brothers C.J. and Russell run the cow-calf operation, which stretches across 19,000 acres. The Blew family leases about 95 percent of their lands in three counties: Reno, Chase and Barber.

The brothers like the challenge of taking land from a dire state to healthy again.

Their Barber County ranch was purchased in 2012, which at that time had between 23 and 40 percent canopy of Eastern Red Cedar.

"At the end of the day we really are in the land rehabilitation business," said C.J. "We couldn't have the cows without the land resource. The cows are a tool for us to help improve it "

The Barber County ranch faced devastation in 2016 when a multi-state wildfire burned through the land. With devastation came blessings; the fire helped restore native grasses, improve soils and accelerate the timetable for reducing Eastern Red Cedar. Streams that had dried up began flowing again. The

Blews partnered with the National Resources Conservation Service to add miles of cross fencing to support their intensive rotational grazing plan and install an extensive water distribution system throughout the ranch.

"The water systems have definitely helped us to graze a greater herd size and increase stock density, thereby improving grazing distribution," said Russell.

"The grass has improved tremendously," said Dusty Tacha, rangeland management specialist for USDA-NRCS. "A lot of that is due to obtaining an animal forage balance."

The Blews work with neighbors and are leaders in their prescribed burn associations. They use fire as a natural resource to improve range land and stay on top of the invasive Red Cedar. Controlled burns allow the grasses and stocking density to improve.

"We deal with vast tracts of land in Barber County, burning two and three thousand acres at a time, which necessitates vast equipment and vast personnel," said Russell. "We can control a 3 to 4,000-acre fire without any issues."

In Reno County, the Blew Partnership has moved away from grain production and worked with the Cheney Lake Watershed Task Force to fund the conversion of more

South

than 1,500 crop acres back to perennial grasses and cover crops. As commodity prices went down, it prompted an easy transition to a grazing crop harvested by cattle.

The Blews continue to build a family tradition of improving their cattle and land, whether irrigated pasture or native range. The brothers keep a long-term approach when it comes to management

because they know the decisions made each morning will affect the longevity of their operation.

Page 13

"We definitely manage our cow herd and our land resource with the idea that it's going to the next generation," said Russell. "Sustainability is a huge part of that. We want to manage for the next 50 years and not the next five months."







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					, , , , ,	✓ √	J
We had a nice	run of high q	uality, mostly	Alma	61 blk	874@139.75	Westmoreland 1 bl	k 1490@71.50
home raised cat	tle for our sa	le Friday, Au-	Havensville	4 blk	867@136.50	Netawaka 1 bl	k 1560@70.00
gust 2nd, with a	a good attend	ance of local	Council Grove	8 blk	867@136.50	Alma 1 bl	k 1600@69.00
and out of state	buyers. The	feeder weight	Centralia	4 blk	760@135.00	Westmoreland 1 bl	k 1425@67.50
cattle sold at mo	stly steady to	strong prices	Alma	4 blk	941@131.00	Westmoreland 1 bl	k 1410@65.50
and there were	not enough li	ght calves to	Berryton	16 blk	950@130.50	Westmoreland 1 bl	k 1335@64.50
test the market.	Cull cows and	bulls sold \$2	Centralia	6 blk	880@125.75	Olsburg 1 bv	vf 1270@62.00
higher on the be	tter kind.		HEIFER C	ALVES - 400	-425 LBS		
BULLS	- 1,225-2,225	LBS	Emporia	7 blk	414@59.00	EARLY (CONSIGNM
Alta Vista	1 blk	2100@90.50	HEIFE	RS — 600-92	5 LBS		olk, few Char & Red strs,
Alta Vista	1 blk	2225@85.00	Leonardville	5 Cross	621@143.50		frs, ID tags, 1 rd pre wea
Allen	1 blk	2225@84.00	Centralia	12 blk	657@140.75	· · ·	n blk, bwf & Red Angus
Westmoreland	1 blk	1785@83.00	Alma	6 blk	644@140.00		Oleen genetic strs & hfi
Junction City	1 blk	1520@80.00	Council Grove	16 blk	725@139.75		n blk strs, 2 rds shots, 7
Council Grove	1 blk	1835@76.00	Berryton	10 blk	746@137.50		n home raised yearling k
Manhattan	1 Cross	1230@74.50	Centralia	4 blk	698@136.00		n home raised yearling t
STEER	IS — 600-950 I	LBS	Alma	18 blk	714@136.00		s cross strs & hfrs, greer
Alma	8 blk	604@167.50	Wamego	4 Cross	651@135.00		s (1 rd shots/ 30 + days
Alma	6 blk	633@165.50	Leonardville	4 blk	732@134.50		ngus & Red Angus strs &
Wamego	5 Cross	605@164.50	Alma	22 Cross	752@133.00		ion blk strs, 1 rd shots, 7
Alma	5 blk	668@161.00	Centralia	7 blk	685@132.00		on replacement quality h
White City	4 blk	602@161.00	Wamego	6 Cross	707@131.00		2 rds shots/ weaned, 600
Berryton	6 blk	671@158.00	Alma	15 blk	793@128.50	,	1 rd shots, 600-700 lbs.
Alma	9 blk	675@155.00	Berryton	18 blk	877@128.50	• 80 blk, bwf & wf str	
Alma	51 blk	722@152.75	Emporia	4 blk	857@128.00	· · ·	ed blk for Sept. 1 (7/8 yrs
White City	34 Cross	702@151.00	Council Grove	6 Cross	726@126.50	• 35 blk hfrs, 2 rds of	
Alma	20 blk	732@148.00	Council Grove	4 blk	913@125.50	- 00 DIK 1113, 2 103 01	311013, 330-7 30 193.
Centralia	7 Cross	701@147.50	COWS & HEIFE	ERETTES — 1,	025-2,220 LBS		
Lawrence	64 blk	769@147.00	Greenleaf	1 blk	1365@93.50		ONSIGNM
Wamego	18 Cross	776@146.75	Greenleaf	1 Char	1225@89.00	_	igus feeder hfrs, 850- 900
White City	38	785@146.00	Alta Vista	1 blk	2220@88.00	• 21 bwf & wf feeder	
Alma	22 blk	812@144.75	Manhattan	1 Ang	1025@87.00		hfrs, strs implanted, 2 rd
Centralia	7 blk	737@144.50	Greenleaf	1 blk	1810@77.00		
Alma	17 blk	800@143.50	Westmoreland	1 blk	1825@76.50		
Council Grove	12 blk	789@143.00	Goff	1	1725@73.50	EARLY C	ONSIGNM
Waterville	120 blk	901@141.10	Alma	1 blk	1500@72.50	_	rs, not weaned, 700-800
Berryton	7 blk	833@140.00	Westmoreland	2 blk	1717@72.50	- 40 SIIIIIIA SUS & III	15, not weaneu, 700-600

NMENTS FOR **G.** 9

Alma

Alma

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Goff

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Westmoreland

Manhattan

1 bwf

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1 blk

1 bwf

1 Cross

1370@60.50 1400@59.50

1165@58.00

1380@55.50

1145@54.50

1185@52.00

1040@51.00

- d strs, off grass, 800-850 lbs.
- e weaning shots, 600-700 lbs.
- ingus X hfrs, 2 complete rds shots, 600-675 lbs.
- s & hfrs, short wean, shots, 500-600 lbs.
- ots, 700-800 lbs.
- rling blk strs, off grass 800-850 lbs.
- rling blk hfrs, off grass 700-800 lbs.
- green/ long weaned/ 2 rds shots, 450-600 lbs.
- days weaned) 550-650 lbs.
- strs & hfrs, long weaned, 3 rds shots, 600-850 lbs.
- nots, 700-850 lbs.
- ality hfrs, 1 rd shots, 600-800 lbs.
- ed. 600-700 lbs.
-) Ibs.
- os.
- 7/8 yrs).

IMENTS FOR AUG. 16

50- 900 lbs.

d, 2 rd shots w/ Pasturella, 650-700 lbs.

IMENTS FOR AUG. 23

0-800 lbs.

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Kansas wheat farmer testifies on importance of Grain Inspection System for U.S. export markets

By Jordan Hildebrand

A Kansas wheat farmer testified in front of the U.S. Senate Committee on Agriculture, Nutrition and Forestry on "Perspectives on Reauthorization of the U.S. Grain Standards Act" on Wednesday, July 31, 2019.

Brian Linin, a farmer from Goodland and member of the Kansas Association of Wheat Growers, provided testimony about the importance of the Federal Grain Inspection Service on behalf of wheat farmers.

"The farmer works to provide the highest quality product that feeds the world. FGIS helps ensure that our customers are receiving the exact specifications that they need," said Linin. "We've provided a lot of information on milling quality, the inspection services and our production processes to our buyers giv-

ing them more confidence in our high-quality product that other countries can't always ensure."

The U.S.'s grain inspection system, authorized through the Grain Standards Act, provides certainty to our foreign customers that all U.S. grains and oilseeds have been inspected and certified by an independent agency. This service is a great, unique value to U.S. commodities and is an important enhancement for our products on the competitive world market.

"As a grower of winter wheat, among other crops, I wanted to be with you here to serve as a voice for fellow wheat farmers across the country about the importance of maintaining a smooth export system," said Linin. "It's been a very difficult few years for farmers. Having a functioning and respected grain inspection



Brian Linin, left, is shown with Sen. Pat Roberts while he was in Washington D.C. to testify before the Senate ag committee on the importance of the Federal Grain Inspection Service. Courtesy photo system has enabled the U.S. to be a reliable exporter and facilitate continued demand for our commodities. When we've seen disruptions to our grain inspection system in the past it has resulted in billions of dollars of lost value throughout the production chain."

The Grain Standards Act serves a critical role in exporting grains and oilseeds, including U.S. wheat, of which about 50% is exported each year. U.S. wheat exports increased despite bearish factors such as a strong U.S. dollar, uncertainty about U.S. trade policies, and difficult inland transportation logistics. A properly functioning grain inspection system is critical.

"The grain inspection system is one that is valued by our overseas customers and adds value to our commodities," Linin reported. "Foreign customers can be assured that

an independent agency has certified shipments to meet the grade requirements specified in a contract. This certainty and reliability has helped wheat and other U.S. commodities to grow our export markets and serves as a significant advantage of purchasing U.S. wheat versus wheat from other origins."

Other testimonies for the committee were provided by Tom Dahl, president of the American Association of Grain Inspection and Weighing Agencies, Bruce Sutherland, member of the board of directors for the National Grain and Feed Association and Nick Friant, chairman of the Grades & Inspections Committee North American Export Grain Association. For Brian Linin's full written testimony, please visit kansaswheat.org.

for upcoming regenerative agriculture school Kansas far 1 IS Classro(

A Kansas farmer says regenerative agriculture has changed his soil, his profits and his future-all for the better. Now he wants to share that experience to help his farming colleagues do the same.

Shane New, 50, farms 1,100 acres just north of Holton. The family farm includes a cow/calf backgrounding and grass-finishing operation, as well as several direct-marketing enterprises and will be the site of a three-day Soil Health Academy school Sept. 17-19.

Soil Health Academy schools feature instruction by Ray Archuleta, Dave Brandt, Gabe Brown, Allen Williams,

KWA ZENDA

Ph.D., and other technical consultants, including New. All of the instructors are widely considered to be among the most preeminent pioneers, innovators and advocates in today's soil health and regenerative agricultural movement.

"Shane walks the talk," said Ray Archuleta, a co-founder of the Soil Health Academy. "School attendees will see, first-hand, how he has increased profits, improved water infiltration and improved the health of his soil, wildlife and livestock."

In addition to managing his farming operation, New is a consultant and principal

WB4269

in Understanding Ag, LLC, a consulting company that specializes in helping farmers and ranchers restore, repair, rebuild, and regenerate their farming and ranching ecosystems.

For New, hosting the SHA school represents an opportunity to share his experiences and help other farmers make the transition to a more profitable and fulfilling farming business model. He is especially cognizant of the dire circumstances many family farms currently face. According to New, not since the Great Depression have farms and farmers been under such pressure due to extreme weather, uncertain markets and increasing input costs.

"The current industrial agriculture model isn't working for family farms," New said. "What farmers will learn at this school is a better model that uses regenerative agricultural principles to regenerate their soil, reduce their input

River Valley

The River Valley District hosted "Get Your DRONE On," a free youth drone day camp, on Thursday, July 18 at the Cloud County Fairgrounds in Concordia. This opportunity was afforded by funding through the Dane G. Hansen Foundation. Erik Espinosa,





The New family farms 1,100 acres just north of Holton and will host the three-day Soil Health Academy September 17-19.

costs and restore their futures." Specifically, New said, he wants attendees to leave the school with two critical tools for regenerative agricultural success: confidence and knowledge.

to show how regenerative ag practices have changed our operation," he said. "We know from experience that implementing regenerative ag principles will work. On our farm, we are reducing costs, stacking enterprises and loving what we

do. I also call it freedom."

To learn more about this Soil Health Academy School, as well as available scholarships, visit www.soilhealthacademy.org or call 256/996-3142.

"We're hosting the school District hosts

intern with 4-H and Dane G. Hansen, presented two camps to youth, between ages 11 and 18, from River Valley District communities.

The day camp was split into two different session times. The morning session was open to youth ages 11 to those who are entering 8th grade. The afternoon session was open for those youth entering high school through high school age 18. We had five youth attend the morning session and four youth attend the afternoon session. The sessions focused on drone safety, coding, and gave youth some hands-on experience.

Youth Drone Day Camp all the ideas youth had of how they could utilize drones in their day to day lives. Some of these ideas included using drones to check fence, crops, and livestock. While others shared ideas on how they could use it to take photos or videos. Each person entered the day with a different level of experience with drones. However, each youth learned

Tech-Aerospace Division for youth to participate. Some of the projects in this division include, but are not limited to unmanned aerial systems. rocketry, computer systems, astronomy, and robotics.

"Get Your DRONE On" day camps allowed for youth to gain more knowledge about drones, drone safety, coding, and how this technology can be used in various careers. If you are a youth interested in how to get involved in this project, or 4-H in general, please contact your local Extension office. Contact Jordan at 785-527-5084 or jschuette@ksu. edu to learn more about 4-H in the River Valley District.

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in a IIII



It was interesting to hear

code and without code. One could see each youth's confidence grow the longer they flew the drones.

how to fly the drones both with

4-H is often only associated with agriculture. However, it may be interesting to learn 4-H does offer a Space

SCHROCK SATURDAY, AUGUST 17, 2019 -- 9:00 AM

LOCATION: 2118 E. Longview Rd. — HUTCHINSON, KANSAS 67501. 1 mile north of Yoder, KS to Longview Rd. then west to location.



Truck, Tractors & Trailers: 1971 Chevrolet Grain Truck w/36k miles & 16' dual lift bed; John Deere 4320* Diesel, Wheat-land Model w/

Westendorf WL-64 Loader & 5886 hrs. New Tires: Case Agri King 1070* Diesel w/8000 hrs & Duals; John Deere 830* Diesel w/pony start engine, has wide front & 3pt; John Deere 730* Diesel w/pony start engine, has wide front & 3pt; John Deere 1935 D* Gas w/Front Steel & Rear Rubber; IH 300 Utility* Gas w/Power Steering, 3pt & Loader; John Deere B* Gas; John Deere MT* Gas; John Deere 70* Propane; 1936 McCormick W-30* Gas; 1934 IH F-20* Gas; IH Model B* Gas; MM U* Propane; 2 MM-U* Propane (both are complete but selling them as is); MM-U* Propane (parts only); Duals, Grapples & Forks for 4320; 7'x18' Tandem Axle Flatbed Trailer w/ramps; 7'x14' Livestock Trailer. Farm Equipment: John Deere 6600* Diesel Combine w/20' Header; Gleaner Baldwin* Gas Combine w/14' Header (set up for alfalfa); Krause 16' Disc; Krause 19' Field Cultivator; Krause 16 Shank Chisel; John Deere DR 168 Van Brunt 16 Hole Drill; John Deere DR208B 20 Hole Drill; John Deere DRA 20 Hole Drill w/Fertilizer Boxes; John Deere 4-16 Plow; John Deere 3-14 Trip Plow; WinPower 45 KW Portable PTO Generator; 18' Hay Wagon w/electric M-5026E gear; Custom 12' Speed Mov-er (good); 6 Row Rotary Hoe; John Deere 640 Roll Bar Rake w/Dolly Wheel; 27' 6" Grain Auger; 42' 6" PTO Grain Auger; New Holland 23 Blower w/pipes; John Deere 210 Grain Cart; #30 Grain-O-Vator; 34' Bale Elevator; Servis 6' Whirlcut Mower; IH Antique Hay Loader (good cond); Post Hole Digger; Steel Wheel Running Gear; One Way 7' Disc; 6'

3pt Blade; Austin Steel Wheel Road Grader; 1 Row Horse Drawn Cultivator; Wagon Transfer Auger; Front-End Tractor Blade; Header Trailer (as is); 38 & 27' 6" Grain Augers (as is condition); Implement Tires; 3pt Hay Forks; John Deere 2 Row Cultivator; Steel & Junk Pile.

Shop Tools & Farm Supplies: Grasshopper 616 Lawn Mower; String Mower; DR Portable Lawn & Leaf Vac; Round Top Livestock Shelters; Water Tanks; Cages; Livestock Scales; 2 Custom Steel Grain Bins; Fuel Tanks; Fuel tank w/pump; Cattle & Sheep Panels; Sheep Feeders & Troughs; W-W Cattle Chute; Fencing Supplies; Hyd Shop Press; Cutting Torch; Craftsman Drill Press; Craftsman 12" Band Saw: Craftsman 10" Table Saw: Craftsman Hand Miter Saw; DeWalt Palm Sander; Anvil; Wash Tubs & Bushel Basket; Saws & Levels; Fairbanks Platform Scales; Lincoln AC 225-S Welder; Ryobi Disc & Belt Sander; DuraKraft 37' Turning Lathe; HB & Puma Vertical Compressors; Puma Twin Tank Compressor; Metal Cutting Band Saw; Delta Shopmaster 12" Planer; Wooden Work Bench; Rollaway Carts; Shop Lights; Industrial 1000 Handy Power Washer; Troy Bilt Power Washer; Ext & Step Ladders; Forks, Rakes & Shovels; Chicken Waters & Feeders; Old Wheelbarrows; Old Gas Cans; Hay Trolley; Tractor Pulley; Old Engines; Tank De-Icers; Open & Boxend Wrenches; Screwdrivers; Crescent Wrenches; Vise Grips; Pipe Wrenches; Battery Charger; Stihl 028 Chainsaw (as is); C-clamps; 80 Small Square-Straw Bales; Misc Lumber; Lots of Hand Tools. Household & Collectibles: China Hutch; Vin-

tage Dutch Pantry; Sofa; Side by Side Refrigerator; Chest of Drawers; Dresser; Dining Table & Chairs; Office Desk; Queen Size Bed; Buffet; Tea Pot Collection; Chinaware; Stemware; Lots of Glassware; Lots of Bedding; Sewing Machine; plus many more items not listed.

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Kansas Hay Market Report

Hay market trade and demand remains slow, prices trended down just a little for most hay types. An abundance of grinder hay and brome hay hitting the market has caused a slowdown in interest from buyers. However, some buyers, both in and out of state, seem willing to pay a little more for better quality hay and for loyalty to those producers they have utilized for years. This could account for some of the wide variations in recent price. The entire state could use a drink and if not received within the next couple of weeks could change the game considerably. According to NASS, topsoil moisture supplies rated 8 percent very short, 32 short, 58 adequate, and 2 surplus. Subsoil moisture supplies rated 3 percent very short, 20 short, 74 adequate, and 3 surplus. Join agriculture leaders from across the state at the fourth annual Kansas Governor's Summit on Agricultural Growth on Thursday, Aug. 29, 2019, at the Manhattan Conference Center at the Hilton Garden Inn. More information about the Summit, including a link to the registration site, can be found at https://agriculture. ks.gov/AgGrowthStrategy/ag-summit-2019. 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 and ground/delivered, steady, grinding alfalfa steady to 5.00 lower; movement slow. Alfalfa: horse, premium small squares 225.00-235.00. Dairy 1.00-1.05/point RFV, Supreme 185.00-226.00, Premium 170.00-195.00, Good 160.00-170.00. Stock or Dry Cow new crop 160.00-180.00. Fair/Good grinding alfalfa, new crop 120.00-130.00. Ground and delivered locally to feedlots and dairies, new crop 150.00-170.00. Grass Hay: buffalo/bermuda mix small squares 6.50-7.50/bale, large rounds 65.00-75.00. Oat hay: large rounds, 115.00-125.00, rained on 80.00. Wheat straw: large rounds and large squares 65.00-75.00 delivered. The week of 7/21-7/27, 6,045T of grinding alfalfa and 325T of dairy alfalfa was reported delivered.

South Central Kansas

Dairy alfalfa, alfalfa pellets, steady; grinding alfalfa steady to 10.00 lower, ground/delivered steady to 5.00 lower, movement slow. Alfalfa: horse, small squares 200.00-210.00. Dairy, 1.00-1.10/point RFV, Supreme 195.00-225.00, Premium 175.00-200.00, Good 165.00-175.00. Stock cow, 150.00-160.00. Fair/ Good grinding alfalfa, new crop 80.00-110.00. Ground and delivered locally to feedlots new crop 135.00-150.00; Alfalfa pellets: Sun cured 15 pct protein 200.00-210.00, 17 pct protein 210.00-220.00, Dehydrated 17 pct 305.00-315.00; Teff hay, mid squares 135.00-145.00. Grass Hay: Bluestem, good small squares 7.00-8.00/bale. Brome, small squares 7.00-8.00/bale, large rounds 100.00-110.00, lesser quality 70.00-80.00. Oat hay, large rounds 70.00-85.00. Wheat Straw: small squares 5.50-6.50/ bale, large rounds 40.00-60.00. The week of 7/21-7/27, 5,155T of grinding alfalfa and 724T of dairy alfalfa was reported delivered.

Southeast Kansas

Dairy alfalfa grinding alfalfa, ground/delivered, grass hay steady; movement slow to moderate. Alfalfa: horse or goat, 230.00-250.00. Dairy 1.00-1.10/point RFV. Stock cow 150.00-180.00. Fair/Good grinding alfalfa, 130.00-140.00. Ground and delivered, none reported; Grass hay: new crop bluestem, small squares 140.00-150.00, good, mid to large squares, 85.00-110.00, large rounds 80.00-100.00. New crop brome, good, small squares 130.00-140.00, mid to large squares 120.00-150.00, large rounds 90.00-100.00, lesser quality 75.00-85.00; Wheat Straw: mid and large squares 75.00-90.00, large rounds 55.00-65.00. The week of 7/21-7/27, 833T 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 with instances at 125.00-140.00. Ground and delivered locally to feedlots and dairies, 125.00-135.00.

Page 15

North Central-Northeast Kansas

Dairy alfalfa, grass hay, grinding alfalfa, ground/delivered steady; movement slow. 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, none reported. New crop fair/good, grinding alfalfa, 100.00-115.00. Ground and delivered 130.00-140.00. Grass hay: Bluestem, small squares 7.00-8.00/bale delivered, large squares 95.00-105.00. Brome, small squares 7.50-8.50/bale delivered, mid to large squares 140.00-150.00, large rounds 95.00-105.00, lesser quality 75.00-85.00; Wheat Straw: small squares 5.00-6.00/bale delivered, large squares 95.00-105.00 delivered, large rounds 50.00-60.00. The week of 7/21-7/27, 432T of grinding alfalfa and 275T of dairy alfalfa was reported 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

Flint Hills Beef Fest slated for August 23-25 in Emporia

Come out and help celebrate the annual Flint Hills Beef Fest August 23rd through the 25th at the Lyon County Fairgrounds in Emporia.

Friday will begin at the Emporia Livestock Sale barn with the Live Stocker Show at 9 a.m. The Beef Producers Seminar will follow at the Bowyer Building beginning at 11:30 with lunch provided. WIBW will host this event with the following speakers:

"Debunking Myths About Beef Sustainability" by Debbie Lyons-Blythe, co-chairman, Outreach Working Group, U.S. Roundtable for Sustainable Beef

"Cattle Trace Pilot Program Update - The Partner

Perspective" by Barb Downey - Downey Ranch Inc.; Pierce Bennett - Government & Industry Affairs Associate, Livestock Marketing Association; Brandon Depenbusch - VP of Operations at Innovative Livestock Services and CattleTrace Inc. Board Chairman; Bob Scherer - Director of Cattle Procurement - Tyson Foods

"The 2019 Markets are Not Done Yet!" by Tom Leffler, Leffler Commodities, LLC.

Plus a special appearance by NCBA vice president Jerry Bohn

Friday evening's ranch feed will be in the Bowyer Building beginning at 6 p.m. Come in out of the heat and enjoy a delicious dinner while

visiting with friends and family. Then take in the popular ranch rodeo in the Arena and cheer on your favorite teams.

Teams that have placed in area Ranch Rodeos from surrounding counties will compete at 7 p.m. at the Lyon County Fairgrounds arena. Each event is a race against the clock, with bonus points being awarded in each event.

The popular calf scramble for children 4 to 13 years old will be offered again this year. Prizes will be awarded so bring the kids and let them take the stage in the calf scramble.

Saturday evening plan to attend the popular steak dinner and awards ceremony at a new

location this year - Civic Auditorium! The awards banquet begins at 5:30 followed by the steak dinner at 6:30 p.m. This year's entertainment is by comedian Mark Mayfield. Mark talks about very serious stuff in a very funny way. Mark's philosophy is simple - "Say it with humor and people will take the message home." His program will begin at approximately 7:30. The Brickhorse Band will wrap up the evening with music and dancing. Come out and enjoy the evening.

The weekend activities wrap up on Sunday with the Golf Tournament at the Emporia Municipal Golf Course.

Friday evening tickets

Cale Hinrichsen selected as Outstanding Leader at National Junior Angus Show

The National Junior Angus Association (NJAA) recognizes Cale Hinrichsen, of Westmoreland, Kansas, as the 2019 recipient of the Jim Baldridge Outstanding Leadership Award for his skills, service and involvement in the NJAA. Hinrichsen was recognized during the closing ceremonies of the 2019 National Junior Angus Show (NJAS) in Louisville, Kentucky.

As a part of this leader-

"It's great that they see a need to recognize Angus juniors who are involved in activities outside of the show ring."

Hinrichsen will start his third year of college at Oklahoma State University (OSU) this fall and is majoring in agribusiness with a minor in marketing. Over his past two years at OSU, he has been active in several on-campus organizations, including the Student Alumni Board, Oklahoma Collegiate Cattlemen's Association and Alpha Gamma Rho Fraternity, all while staying active in the operations of his family's ranch back in Westmoreland. Perhaps one of most notable leadership roles Hinrichsen heads is as the 2019 Angus Ambassador, where he represents the nearly 25,000 Angus breeders as he travels the country to industry meetings and events, advocating for the breed and educating producers and consumers. He

has traveled to New Orleans to represent Angus at the National Cattlemen's Beef Association Annual Trade Show and Conference; Canada for the Guiding Outstanding Angus Leaders Conference where he promoted American Angus genetics to the group of Canadian juniors; and Brookings, South Dakota, for the Beef Improvement Federation meetings. He will continue to travel this year to other state association meetings as time

and integrity are things I have learned while being a member of the NJAA," he said. "I'm hoping to reciprocate these skills back to the junior membership by being the best role model I can."

For more NJAS news and information, visit njas.info.



will be available at the door - \$15.00 for adults and \$5.00 for children.

Saturday evening tickets are \$40 and are advance tickets only. They are available at the following locations: Emporia Veterinary Hospital, 710 Anderson; Jim's Cowboy Shop, 312 Commercial and Frontier Farm Credit, 1808 Road G.

For more details please call 620-528-3444 or www.beeffest.com" www.beeffest.com or Facebook

AUCTION MONDAY, AUGUST 26, 2019 - 10:00 AM

We will sell the following items at the farm located from ABILENE, KANSAS 8 miles south on Highway 15 to Rural Center School then 1.25 miles east on 1400 Ave. to the metal building on the north side of the road.

COMBINES & TRACTORS: 1999 John Deere 9610 Maximizer combine w/chaff spreader, straw chopper, 30.5x32 front tires, 1,964 separator & 2,899 engine hrs., SN: HO9610X682051; 2008 JD 625 Hydra Flex 25' header; Cimarron header trailer; 2008 A85 Agco Gleaner rotary combine, Anniversary Model, Cat die sel engine, oversized tires, straw chopper, bin extensions; 1,125 separator & 1,654 engine hrs.; MacDon 36' draper header, appr 200 hours, like new; 1982 John Deere 4440 tractor w/8 speed power shift, 2 SVCs, front wts., 20.8x38 rim mount radial duals 5282 hrs., SN: RW4440P060435; 1968 John Deere 3020 diese tractor. svnchro on console, 1 SVC, 7,362 hrs. w/GB 800 loader & 7' bucket, SN: T113R095337R.

SEMI, TRAILER, TRUCK & PICKUPS: 2004 IH 9400 Eagle semi tractor w/Cummins 450ST, 9 speed, 870,353 miles; Jet 34' double hopper semi trailer, steel, 1 yr. old Shurlock rollover tarp 1968 GMC 2 ton truck, 15' steel bed w/wood floor & hoist, V8, 4x2 speed, 75,090 miles; 1979 Chevy 1/2 ton 4x4 pickup w/ , automatic, grill guard & running boards, bought new by Le Róy Hoffman, 66,484 miles; **1974 Chevy 1/2 ton pickup** w/350, automatic, bought new by Gene, 127,676 actual miles, gold w/ wide white stripe, very slick; 1962 Chevy fleetside 3/4 ton pickup, V8, 4 speed, 115,964 miles.

FARM MACHINERY: Unverferth 6500bu grain cart w/shurlock rollover tarp, 24.5x32 12 ply tires, like new; JD #235 18'6" cen-terfold disk w/duals, cone discs, bought new by Gene; MF #1694 6 bottom plow; IH 8' 3pt. blade w/JD cylinder; Bush Hog 5' 3pt. rotary mower; Clark pull type sprayer w/poly tank; Schaben 50gal. sprayer for ATV; 3 nozzle 40" boom, wand, used very little. BOAT, BIKE & MISC .: Late '60s ski boat w/good 95hp Merc. 950ss outboard, needs seats & carpet w/nice boat trailer; boat canopy trolling motor & gas tanks; Goodyear Hi-Way Patrol bicycle w rack & light, 70 years old; 110 gal. PU fuel tank w/12V motor; 110V fuel tank pump; Windpower Power Pak portable generator; Stihl Wood Boss 024AV chain saw, used little; Stihl 011 AVT chain saw, also good; canvas tarps; chemicals; Rotella 15-40 engine oil; lg. refrigerator; apt. sized refrigerator; Craftsman 22" 7hp SP mower; cargo carrier for car roof, tools and misc. shop items. NOTE: Nice clean sale. Most items have been shedded.

ship award, Hinrichsen will receive a \$2,500 scholarship. Each year, an outstanding NJAA member is recognized for his or her involvement and contribution to the Association. In 2014, the award was named the Jim Baldridge Outstanding Leadership Award, in memory of Jim's lifetime of service to the Angus breed.

"The Baldridge family is remarkable, and knowing this award comes from them truly means a lot," Hinrichsen said. allows, continuing to use this platform to advocate for the use of Angus genetics within commercial herds and the importance of progressiveness within the Angus breed.

The 2019 NJAS marked ten years of attendance for Hinrichsen, and his recognition as the 2019 Outstanding Leadership Award recipient has made his junior Angus membership that much more memorable.

"Leadership, advocacy

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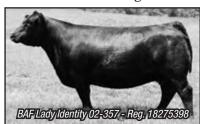
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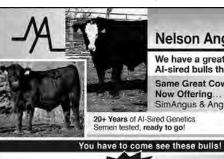
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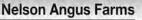
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Tell them you saw it in **Grass & Grain!**

Cover Crop Corner: Post-flooding soil restoration with cover crops

By Brent Jones, Sales and Iowa Research Farm Manager for Grassland Oregon

As row crop and hay producers throughout the country navigate the recovery process from this spring and summer's excessive flooding, attention is needed for what is happening below ground.

During extended periods of water saturation or debris coverage, plants are typically killed or damaged from suffocation due to oxygen not reaching the root zone. While plant loss is the immediate cause for concern, oxygen depletion and plant death can lead to significant long-term production impacts from a change in the soil biology.

One of the main drivers of soil health is a mutually beneficial relationship between soil microorganisms and plant root systems. Arbuscular mycorrhizae (AM) fungi are particularly vulnerable when flooding occurs. Colonizing on root systems, AM fungi are essential for increasing nutrient cycling in soil through its development to feed itself. In return, its host plant receives greater nutrient uptake, which comes with production benefits. If left fallow after the crop has been destroyed, the field's future production capabilities above ground will suffer from the reduction in AM fungi below ground.

Another thing to be wary of is soil contamination and changes to nutrients. Flooding can bring in sand and increase soil salinity and acidity. It is also a main contributor to nitrogen leaching, stripping away soil nutrients and organic matter for future crops.

Restoration with a cover

crop mixture

The best thing that can K-State veterinarian urges producers to plan for animal heat stress

Compared to recent years, Kansas' weather has been mostly nice to the state's cattle producers this summer. That's about to change.

Kansas State University beef veterinarian A.J. Tarpoff is sounding the bells for livestock producers to take some extra measures to protect their herds when temperatures are forecast to top 100 degrees across the state.

"Water water and lots of water," said Tarpoff, who noted that the beef industry loses an estimated \$369 million each year due to the effects of heat stress. "Whenever we have a heat stress event, that is the most essential nutribe done to mitigate long-term damages caused by flooding is to get a new crop in the ground as soon as field conditions allow. Not only is this going to stimulate micro-organism production within the soil, but a cover crop will also help control weeds, regulate soil temperature and reduce erosion in future weather events.

To make the most of soil health restoration efforts, a cover crop mixture is your best bet to ensure above and below ground success by balancing a mixture of species that will: Improve soil structure, fix notable amounts of natural nitrogen, produce significant biomass and maintain performance in heavy, waterlogged soils.

Here are a few options to consider for mixtures for late summer and early fall establishment:

Annual ryegrass

Aggressive root and forage growth of annual ryegrass makes it a favorite in the Midwest and southern states ahead of corn and soybeans. Its notable root mass absorbs nutrients like nitrogen and phosphorous from the soil to make available for the following crop. The improved diploid annual grass variety, Lonestar, has been bred for excellent cold tolerance, high level of disease resistance, seedling vigor and rapid forage growth. Seeding dates:

March

August-September (may work into early October) Ideal soil:

Grows best in soil with a pH range of 6.0-7.0

Can tolerate poorly drained soils

Balansa Clover

Significant biomass production and a deep root sys-

by the number of cattle in an operation, and the need for water grows exponentially.

Tarpoff said cows try to cool themselves by panting heavily (evaporative cooling), and somewhat by sweating - though they are inefficient sweaters compared to humans. Cows accumulate a heat load during the day and rely on cooler, nighttime temperatures for relief.

Producers can aid in cooling not only by providing more water, but also by changing some of their management strategies during the hottest days.

For example, Tarpoff notes, producers should consider protem make balansa clover ideal for soil health improvements. The most cold tolerant variety on the market, FIXatioN, can survive in sub-freezing temperatures at minus 15 degrees Fahrenheit with zero snow cover, thriving as winter cover. Bred specifically to be late maturing for management flexibility, the annual legume can fix up to 200 pounds of nitrogen per acre and yield 5 tons of dry matter in a single growing season. Trials have also found FIXatioN can survive brief periods of flooding.

> Seeding dates: August in northern states September in Midwest October in southern states Ideal soil:

Grows best in soil with a pH range of 4.5-8.0

Can tolerate poorly drained soils with moderate salinity

Berseem Clover

Similar structure to alfalfa, berseem clover is a cool season annual legume that provides non-bloating forage for livestock suitable for grazing or having. With the ability to withstand temperatures as low as 20 degrees Fahrenheit, Frosty Berseem Clover is the most cold tolerant berseem clover on the market. It can also fix up to 150 pounds of nitrogen per acre.

Seeding dates:

Throughout September in lower Great Plains and lower Corn Belt

Mid-September - mid-November in Southeast

Ideal soil:

Prefers slightly alkaline loam and silty soils with a pH of 6+

Cereal Rye

Rapid germination and early growth make cereal rye one of the best species for delayed planting. While providing good weed control, it

can make a big impact on how

much these animals deal with

to avoid lower-quality straw

hay or other foods that are fi-

brous, which create more heat

in the animal's rumen. Feedlot

rations and lush green grass

are better options for helping

animals control digestive heat,

fined settings, producers

should provide plenty of water

and shade (if available), and

use sprinklers to cool pen

floors. Tarpoff said they also

should minimize handling of

have to move, the more heat

In feedlots or other con-

Producers should also try

during the heat of the day."

is also good at breaking up surface compaction and captures available nitrogen. Take caution when using ahead of corn to avoid competition for nitrogen and potential disease transfer.

Seeding dates:

August - mid-November Ideal soil: Hardy enough to tolerate most soil types

Hairy Vetch

Along with fixing nitrogen and supplying a significant amount of organic mulch, hairy vetch is also an excellent scavenger of phosphorus - all of which improve soil fertility. When paired with cereal rye, the duo recycles nutrients in the soil, controls weeds and erosion and extends nitrogen distribution periods. While hairy vetch may winterkill in colder climates, it typically survives and regrows in the spring.

Seeding dates:

August - September

Ideal soil:

Grows best in soil with a pH range of 6.0-7.0 but can perform in pH levels lower than 5.5

Can tolerate most soil including types, poorly drained soils

Radish

The earlier it is established, the bigger the root. Fall seeding will result in a carrot sized root, which will die after several days of 25 degree Fahrenheit weather and quickly decompose. The organic matter left behind builds soil health by feeding earthworms, fungus and microbes.

Carwoodi Nematode Control Radish is an oilseed radish that has been bred to release a biochemical from its roots that stimulates cyst nematode eggs to hatch. The nematodes then attach to the radish root,

The Cattle Comfort Index is available online at http:// mesonet.k-state.edu/agriculture/animal.

but are unable to adequately feed, and because of poor nutrition, either die or do not reproduce. It also features extremely high levels of glucosinolates, which serve as a bio-fumigant.

Weed suppressing traits of Driller Daikon Radish makes it an ideal catch crop following corn and soybeans, resulting in a nearly weed-free seed bed come spring.

Seeding dates: August - mid-September

Ideal soil: Prefers well drained soils

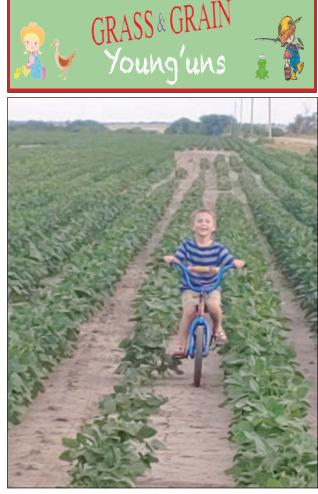
within a pH range of 6.4-7.3 Take home points

When making your cover crop mixture, keep your future crop goals in mind and

choose something that won't cause any management issues. Equally as important is to make seed selection based on variety traits, rather than going with a VNS (variety not stated) option. Quality traits like cold tolerance, disease resistance, maturity, nitrogen fixation, root depth and soil tolerances have been bred for consistency in proven varieties - which can make the difference between a cover crop success and a cover crop failure.

Page 19

If you have any questions about which cover crop options will work best for your geography and unique challenges, give Grassland Oregon a call at 503-566-9900.



What do you do when the gravel road is too tough to ride on? Why, ride in your dad's bean field of course! Pictured is Chance Frownfelter, rural Marquette.

Send photos of your Country Young'uns doing what they love to gandgeditor@agpress.com.



ent for animals, times five.

"I say, 'times five' because the question always comes up about how much water do cattle need, and the answer is that they need five times the amount of water that they are taking up in dry matter."

For a cow that is consuming 30 pounds of dry matter, that comes out to about 20

viding most of the cattle's feed later in the day, as much as 70 percent. Doing so will help to reduce digestive heat, or the heat that accumulates when cattle eat.

"This time of year, we may be providing that ration at 6 or 6:30 in the evening so we can push back that digestive heat load into the cooler hours of aht " Tornoff soid

they produce.

Tarpoff said.

The Kansas Mesonet Network at Kansas State University maintains a Cattle Comfort Index that combines the effect of temperature, humidity, wind and solar radiation. Tarpoff said it's an excellent online source for producers to monitor when making plans for heat and potential nighttime

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Costco's Craig Wilson is the new president of The Center for Food Integrity (CFI) Board of Directors. Wilson, vice president of quality assurance and food safety at Costco Wholesale Corporation, is among a new slate of officers and board members who represent the diversity of today's food and agriculture industries and will bring unique perspectives to CFI's mission of earning trust in today's food system. Wilson was elected by the CFI board at its July meeting in Kansas City.

In addition, the board named Bill Even as vice president. He is the Chief Executive Officer for the National Pork Board and previously served as the Global Industry Relations Lead for DuPont Pioneer. Secretary/treasurer is Kirk Merritt, executive director of Ohio Soybean Council. Directors elected to the executive committee are David Fikes, Food Marketing Institute; Monica Massey, Dairy Farmers of America. Inc.:

and Emily McMillan, Chick-Fil-A. Inc.

The CFI board of directors includes industry leaders Keith Dailey, The Kroger Company; Robin Kinney, American Farm Bureau Federation; Stewart Leeth, Smithfield Foods; Sean Leighton, Cargill; Tammy McElroy, Sysco Corporation; Debra Miller, Ph.D., National Confectioners Association; Sara Payne, Iowa Farm Bureau Federation; Ernst van Orsouw, Genus/PIC; Judson Vasconcelos, DVM, Ph.D., Merck Animal Health; and Mindy Whittle, Bayer. Serving as CFI CEO is Charlie Arnot and CFI executive director is Terry Fleck.

CFI extends its appreciation to the following individuals for their commitment and support to the board as their time serving comes to an end: CFI Board President Doyle Karr, Corteva; John Baugh, Purdue University; Leon Bruner, Grocery Manufacturers Association; Len Heflich, Grupo Bimbo; Philip Lobo, SmithBucklin; and Amy Roady, Illinois Soybean Association.

Now in its 12th year, CFI is a not-for-profit organization whose goal is to help today's food system earn trust, with a vision of a transparent, sustainable food system in which practices align with consumer expectations and the public discussion is well-informed and balanced. CFI represents the diversity of today's food system through its many members and partners.

At the July meeting, the board approved a multi-year Strategic Direction plan for CFI, which will help members and the entire industry more effectively build trust and continue working on critical topics affecting the industry as it moves forward.

To learn more about CFI's leadership, membership and consumer research, log on to www.foodintegrity.org or contact CFI at learnmore@foodintegrity.org

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The Solomon Valley 4-H Club entered the Champion Pen of 3 Steers at the 2019 Ottawa County Fair. Members shown are, from left: Maddy Krueger, Dalton Krueger, and Weston Schrader.



TAGA COUNTY FAIR 20

The Grand Champion Steer at the 2019 Ottawa County Fair was owned by Weston Schrader of the Solomon Valley 4-H Club.



Dalton Krueger, Solomon Valley 4-H Club member, led out the Reserve Grand Champion Market Steer at the 2019 Ottawa County Fair.



Taking top honors in the 2019 Ottawa County Fair Beef Showmanship were, from left: Gabe Hueser, Reserve Junior; Victoria Hueser, Champion Junior; Emma Hueser, Reserve Senior; Weston Schrader, Champion Senior. Emma was later selected as the Reserve Grand Champion Showman in the Round Robin Competition.





The Supreme Breeding Heifer at the 2019 Ottawa County Fair was owned by Weston Schrader of the Solomon Valley 4-H Club.



The Reserve Supreme Breeding Heifer of the 2019 Ottawa County Fair was shown by Josi Schrader of the Solomon Valley 4-H Club.





Top Bucket Calf honors at the 2019 Ottawa County fair went to "Sweetie" and Callan Rensink of the Woodsdale 4-H Club. He won the 9-10 year old division and went on to be named Grand Champion Bucket Calf Showman. Colyer Rensink of Minneapolis was named the Champion Open Class Bucket Calf Showman at the 2019 Ottawa County Fair.



The Champion Open Class Meat Goat was shown by Tye Malmberg of Minneapolis.

These area businesses congratulate the youth of Ottawa County on another successful fair!



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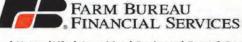
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Salina Bennington Minneapolis Wamego Sylvan Grove Lucas





Josi Schrader of the Solomon Valley 4-H Club exhibited the Grand Champion Market Goat at the 2019 Ottawa County Fair.



Weston Schrader, a member of the Solomon Valley 4-H Club, exhibited the Reserve Supreme Breeding Doe at the 2019 Ottawa County Fair.





Lillian Hulse, Pleasant Valley 4-H Club member, led out the Reserve Grand Champion Market Goat at the 2019 Ottawa County Fair. She was also tapped as the Reserve Champion Junior Meat Goat Showman.



The Supreme Breeding Ewe at the 2019 Ottawa County Fair was owned by Maddy Krueger, a member of the Solomon Valley 4-H Club. She also showed the Reserve Grand Champion Market Lamb and was named the Champion Junior Sheep Showman.





Josi Schrader, Solomon Valley 4-H, led out the Supreme Breeding Doe at the 2019 Ottawa County Fair. She was also named Champion Junior Meat Goat Showman.



Dalton Krueger, from the Solomon Valley 4-H Club, showed the Grand Champion Market Lamb at the 2019 Ottawa County Fair. He also had the Reserve Champion Open Class Breeding Ewe.

Ottawa County Fair Parade

Colby Nichols, member of the Minneapolis FFA Chapter, drove the Supreme Breeding Gilt at the 2019 Ottawa County Fair. He was also tapped as the Champion Senior Swine Showman.



Ty Ebert, Solomon Valley 4-H, drove out the Grand Champion Market Hog at the 2019 Ottawa County Fair. He also had the Reserve Grand Champion Market Hog.



Mason Ebert, of Tescott, showed the Champion Open Class Market Hog at the 2019 Ottawa County Fair.



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Fair parade photos courtesy of Ottawa County Fair Board



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Page 22

Grass & Grain, August 6, 2019



Krehbiel chosen for Swine Production Entrepreneurship award

Katie Krehbiel, Inman, received a State FFA Proficiency Award in Swine Production Entrepreneurship at the annual FFA convention in May. Kansas Pork Association is the sponsor of this award.

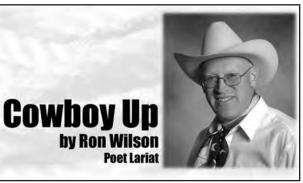
Katie raises and breeds crossbreds as well as registered Hampshire pigs, which she shows at local and state fairs and sells to members of her local 4-H club. She began her operation at nine years old and has been able to expand her business, as well as learning proper care for her animals and budgeting and business management skills. Katie made improvements to her operation after receiving a grant from National FFA to upgrade electricity and plumbing in her farrowing house. Katie plans to pursue a degree in zoology.

The proficiency award program recognizes students for exceptional accomplishments and excellence in a Supervised Agricultural Experience (SAE) program.

Marysville Livestock Sales Every Thursday at 12 Noon Bill Keesecker, Manager • 785-562-1015 1180 US Hwy. 77, P. O. Box 67, Marysville, KS 66508 PLEASE VISIT OUR WEB SITE TO SEE OUR LATEST DETAILED MARKET REPORTS AND UPCOMING CONSIGNMENTS AND SPECIAL SALES: www.marysvillelivestock.com STEERS/BULLS BEEF HOLSTEINS Market Report for 8-1-2019. 300-400# \$170.00-\$146.00 \$83.25-\$44.00 550 HEAD SOLD \$168.00-\$137.00 \$165.50-\$139.00 400-500# \$81.00-\$40.00 500-600# \$81.50-\$63.50 **HFRETTES:** 600-700# \$165.00-\$121.00 \$81.50-\$63.50 1280#-820# \$114.00-\$86.00 700-800# \$141.50-\$128.00 \$68.00-\$40.00

800-900# 900-1,000# HEIFERS	\$141.00-\$128.00 \$143.00-\$125.00	\$77.75-\$73.75 \$70.00-\$63.50	COWS-HIGF 2055#-1020#	
300-400# 400-500# 500-600#	N/A \$160.00-\$141.00 \$150.00-\$141.50		COWS-LGT WT 8 1580#-880# \$	
600-700# 700-800# 800-900#	\$118.00-\$134.00 \$110.00-\$125.00 \$112.00-\$124.00		BUL 2090#-1010#	
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Tales Trail

It's time to hit the trail! By that I mean, it's time to make plans to attend the 2019 Chisholm Trail Conference. Three years ago, the Chisholm Trail conference was held in Fort Worth. This year, it is at the Old Cowtown Museum in downtown Wichita. The conference looks to be a great one.

The folks at the historic Delano district of Wichita and the International Chisholm Trail Association are hosting this multi-state conference. The public is invited and encouraged to attend. In fact, as a one-time offer, everyone who attends the conference will receive a one-year membership in the International Chisholm Trail Association for free.

The conference is September 12-13, 2019. It's for anyone interested in western history, Kansas history, cowboy culture, and even tourism and economic development. That's because the conference will also discuss a potential designation of the Chisholm as a national historic trail, which would stimulate economic growth in Kansas and commu-

nities along the way. The first main speaker of the conference is Jesse Chisholm himself. No, it's not a ghost, it is a re-enactor. He will portray the half-Indian trader who is the namesake of the trail. Then there will be a presentation about the drovers and cattle drivers themselves.

Joseph McCoy is the man who first brought the cattle drives to Abilene. His story will be shared by Dr. Jim Sherow, a K-State history professor who has written a book about McCoy. Jim's presentation is titled Joseph McCoy's Great Gamble. Other topics covered at the conference range from dowsing for water to cowtowns and early Wichita. A Chisholm Trail art show is also part of the conference.

The first night features a chuckwagon supper (see following poem). The chuckwagon was an essential but sometimes forgotten part of the early cattle drives. Western musician and historian Jeff Davidson will perform that night, and I get to share some

cowboy poetry too.

On the second day of the conference, Steve Myers from Texas will speak about Marking the Chisholm Trail. Michael Grauer, of the National Cowboy and Western Heritage Museum in Oklahoma City, will speak on What Cowboys Were Not! Historian Jim Mason will speak on the coming of the railroad.

The conference will also address whether Congress will designate the Chisholm and Western Trails as national historic trails. The International Chisholm Trail Association is calling for such designation, with protection for the rights of private property owners along the trail. Participants will learn about the background of how the park service conducted the study which found that these trails were indeed historic. State and federal legislators have been invited to speak

also.

On Friday night, Jim Hoy, Kansas favorite son, will speak on Singing the Cattle up the Trail. Then it's time to kick up our heels and head out to Wichita's Union Stockyards for a western cookout and some country swing dancing.

Old Cowtown Visitors Center is a great place to have this conference. The modern visitors' center is the gateway to Old Cowtown itself, which is a living depiction of Wichita as an 1860s cattle town along the Chisholm Trail. It includes 54 historic and recreated buildings on 23 acres. Old Cowtown is accredited by the American Alliance of Museums. Only 3 percent of the nation's museums have achieved this accreditation.

So come for the conference and enjoy Old Cowtown, before you have to hit the trail back home. For more information, go to www.chisholmtrailassn.com.

Our friend Chuck (wagon) By Ron Wilson, Poet Lariat "An Army travels on its stomach," a wise person once said, 'Cause a food supply's important when a group's marching ahead. We have to have food when a group is on the move. It's essential to life and to keep us in the groove. That's true for armies as seen from soldiers' leadership, And for others such as on a lengthy family trip. It was also true in yesteryear, on cattle drives of old, When longhorn herds came north, with cowboys brave and bold. Those cowboys had to eat, so a chuckwagon came too, With needed food supplies and a cook to make it do. It might have sourdough for biscuits, lots of pots and pans, With coffee, dried fruit, beans, and maybe something in some cans. The chuckwagon would roll along, accompanying the herd, To serve the cowboys food when the boss would give the word. We give thanks for this system, which former history reveals. I guess the chuckwagon was the original "meals on wheels." Happy Trails! www.ronscowboypoetry.com © Copyright 2019 THE LATEST FARMING

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		COWS: \$66-\$75.00; \$55-\$65.75; \$54 & down. BULLS: \$84.00-\$87.00, light test.
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Report from July 31, 2019	Cattle sales Tuesday, 11:00 AM.	6 blk
STEERS 15 747 131.00 4 665 154.50 4 823 129.00 5 664 148.50 38 840 128.00 4 721 145.00 45 817 125.25 19 755 145.00 2 895 123.50 11 814 139.00 578.00 905 123.50 11 814 139.00 \$78.00 91,639 Ibs. 17 856 137.00 \$78.00 91,639 Ibs. 11 714 139.00 \$87.50 2,110 Ibs. 64 745 131.60 \$87.50 2,110 Ibs. WEDNESDAY, AUGUST 14: 30 blk X Fall bred cows, 3-8 yrs old Bred Angus or Char 80 Ang X Steers & Heifers 900-925 Ibs, yrlgs off grass 249 blk X Steers 875-950 Ibs, yrlgs off grass 120 blk X Steers 800-850 Ibs, yrlgs off grass 120 blk X Steers 800-850 Ibs, yrlgs off grass 120 blk X Steers 600-750 <th>Report from July 30, 2019 STEERS TOP BUTCHER COW: 2 515 155.00 \$72.50 @ 1,840 LBS. 4 644 150.50 HEIFERS TOP BUTCHER BULL: 1 400 139.00 31 818 134.00 31 818 134.00 BRED COWS: \$1,225 4 615 122.00 Light run of calves & yearlings. PAIRS: yearlings. \$900-\$1,375 SEPTEMBER 3rd DUE TO</th> <th>6 bkbwf. 563@142.00 14 blk. 561@151.00 8 mix. 540@138.00 20 blk. 671@154.25 10 blk. 542@130.50 7 blk. 699@148.50 11 blk. 687@140.00 12 blk. 664@147.50 13 blk. 666@137.50 7 bkbwf. 637@146.50 14 bkbwf. 645@136.50 13 mix. 625@143.50 6 mix. 649@136.50 13 mix. 622@143.50 7 mix. 671@135.50 5 red. 739@143.00 8 bkbwf. 726@133.00 8 bkbwf. 748@139.00 14 mix. 696@133.00 8 bkbwf. 748@139.00 14 mix. 696@133.00 8 bkbwf. 748@139.00 14 mix. 696@133.00 8 bkbwf. 748@139.00 14 mix. 626@132.00 12 blk. 818@138.75 9 bkbwf. 735@137.85 9 bkbwf.</th>	Report from July 30, 2019 STEERS TOP BUTCHER COW: 2 515 155.00 \$72.50 @ 1,840 LBS. 4 644 150.50 HEIFERS TOP BUTCHER BULL: 1 400 139.00 31 818 134.00 31 818 134.00 BRED COWS: \$1,225 4 615 122.00 Light run of calves & yearlings. PAIRS: yearlings. \$900-\$1,375 SEPTEMBER 3rd DUE TO	6 bkbwf. 563@142.00 14 blk. 561@151.00 8 mix. 540@138.00 20 blk. 671@154.25 10 blk. 542@130.50 7 blk. 699@148.50 11 blk. 687@140.00 12 blk. 664@147.50 13 blk. 666@137.50 7 bkbwf. 637@146.50 14 bkbwf. 645@136.50 13 mix. 625@143.50 6 mix. 649@136.50 13 mix. 622@143.50 7 mix. 671@135.50 5 red. 739@143.00 8 bkbwf. 726@133.00 8 bkbwf. 748@139.00 14 mix. 696@133.00 8 bkbwf. 748@139.00 14 mix. 696@133.00 8 bkbwf. 748@139.00 14 mix. 696@133.00 8 bkbwf. 748@139.00 14 mix. 626@132.00 12 blk. 818@138.75 9 bkbwf. 735@137.85 9 bkbwf.
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Trump says new agreement with EU will boost beef exports

(AP)-President Donald Trump celebrated a new agreement Friday to increase beef exports to the European Union, saying sales should increase by 46 percent in the first year.

Trump portrayed the agreement as standing up for farmers and ranchers. Producers have been hurt by retaliatory

tariffs that China imposed after Trump imposed 25% tariffs on \$250 billion in Chinese products.

The signing of the agreement comes the day after Trump increased pressure on China to reach a trade deal by saying he will impose 10% tariffs Sept. 1 on the remaining \$300 billion in Chinese imports he hasn't already taxed.

The European Commission announced in June that it had reached an agreement with the U.S. to allow more hormone-free U.S. beef onto the European market.

"Opening markets for our farmers is about more than just an industry. It's about a way of life," Trump said from the White House before the signing of the agreement.

U.S. pork industry battling challenges from trade to labor shortage, NPPC president tells Capitol Hill

The U.S. pork industry faces numerous challenges both at home and abroad that, if not addressed, will pose significant harm to our farms, rural communities and ultimately consumers, National Pork Producers Council (NPPC) president David Herring, a pork producer from Lillington, N.C., testified recently before the House Agriculture Subcommittee on Livestock and Foreign Agriculture.

"One of the most damaging threats to the U.S. pork industry has been the punitive, retaliatory trade tariffs that China and other countries have imposed," Herring told the subcommittee.

China is the largest consumer and importer of pork in the world, but U.S. hog farmers have been sidelined, Herring told the subcommittee, due to China's 62% tariff on American pork that have cost domestic producers \$1 billion on an annualized basis. "There is an unprecedented sales opportunity for U.S. pork producers in China as that country continues to battle the spread of African swine fever and experiences a major reduction in domestic production," he said. "Instead, this trade opportunity is fueling jobs, profits and rural development for our international competitors. We seek an end to the trade dispute with China and the restoration of more favorable access to the world's largest pork-consuming nation."

Herring also called for expedited negotiation of a trade agreement with Japan, where U.S. pork producers are losing market share due to new trade agreements Japan has formed with the European Union and TPP-11 nations.

In addition to trade issues, U.S. pork producers are working to prevent the spread of African swine fever (ASF), an animal disease affecting only pigs and with no human health or food safety risks, Herring explained to the subcommittee. "We can all agree that we need to keep this deadly swine-only disease out of the USA," he said. To that end, NPPC has been advocating for strengthened biosecurity at our borders and is requesting appropriations funding for 600 additional U.S. Customs and Border Protection agricultural inspectors at our borders.

In his testimony. Herring also highlighted several other priorities for U.S. pork producers, including:

Visa reform to address a serious labor shortage that could lead to farms and packing plants closing operations. NPPC supports visa system reform that provides agricultural employers with sustained access to year-round labor.

Implementation of the 2018 Farm Bill as intended by Congress, including development of a foot-and-mouth-disease vaccine bank needed to quickly contain and eradicate an outbreak.

The right regulatory framework for gene-edited livestock, an innovation that promises to strengthen U.S. pork's competitive position globally. Through its "Keep America First in Agriculture" campaign, NPPC is aggressively working to establish oversight within the U.S. Department of Agriculture where it belongs, not with the U.S. Food and Drug Administration, which has claimed jurisdiction.

"Addressing these challenges will make U.S. hog farmers even more competitive, expand production, fuel job growth and contribute to rural communities across the country," Herring said.

Adaven Scronce to serve as Wildcat **District Extension agent**

Adaven Scronce will join the staff of K-State Research and Extension - Wildcat District as a Diversified Agriculture and Natural Resources Extension agent, effective June 30, 2019. The Wildcat District has offices in Girard, Altamont, Fredonia, Independence, and Pittsburg.

Adaven will be based in the Independence office.

She earned both her bachelor's degree in Animal Science and her master's degree in International Agriculture at Oklahoma State University.

Scronce has most recently been employed as an animal technician at E (Kika) de la Garza Institute for Goat Research in Langston, Oklahoma,

Agriculture and Natural Resources agents develop and deliver educational programs, such as: agronomic and livestock production, agriculture economics, management and public policy, horticultural production and management, natural resources conservation, and environmental leadership.

Local Extension faculty are jointly employed in a partnership between K-State Research and Extension, headquartered on the Kansas State University campus in Manhattan, and the local Extension board.

The role of K-State Research and Extension is to encourage the adoption of research-based information to improve the quality of life for Kansans. K-State Research and Extension is the short name for the Kansas State University Agricultural Experiment Station and Cooperative Extension Service.

For more information, contact K-State Research and Extension Wildcat District at (620)-724-8233 or contact Adaven via email at adaven@ksu.edu



Consider Corn Challenge winners focus on improving existing products in the marketplace with corn-based next generation renewable materials

Recently, at the BIO World Congress on Industrial Biotechnology and AgTech in Des Moines, Iowa, the National Corn Growers Association (NCGA) announced the winners of the Consider Corn Challenge II. Three winners were chosen, each with a unique technology to improve a product or process using field corn to produce bio-based materials.

"Corn is a sustainable, abundant and affordable industrial feedstock that, as these companies have demonstrated, has a myriad of uses," said Director of Market Development Sarah McKay. "The winners of the Consider Corn Challenge will help America's corn farmers partner with industry to establish new uses of corn. This challenge continues to highlight the fact that U.S. corn is an extremely flexible feedstock for bio-based products."

The three winners of the Consider Corn Challenge II are ExoPolymer, Inc., based out of San Carlos, California, Sumatra Biorenewables, LLC. from Ames, Iowa, and the United States Department of Agriculture (USDA) Agricultural Research Service in Peoria, Illinois.

ExoPolymer, Inc. intends to create a new profile of customizable, polysaccharide-based hydrocolloids that are domestically produced by microbial fermentation using corn sugar as a feedstock. These new hydrocolloids will meet the growing needs and performance gaps in the healthcare, personal care, food, pharmaceutical and energy industries.

Sumatra Biorenewables, LLC develops and produces novel monomers that are incorporated into polyamides and polyesters to provide uniquely valuable properties: notably tensile strength and low water absorption. These superior performance-advantaged materials have wide-ranging applications in the specialty nylon's industry. Opportunities include improved hydrophobicity, anti-static, flame-retardant, or have tuned mechanical strength to meet customer specifications.

USDA Agricultural Research Service: National Center for Agricultural Utilization Research in Peoria, IL plans to use emulsifiers, polymer films and coatings made from corn starch and vegetable oil rather than petroleum, which could open the door to new products with a smaller environmental "footprint." The lab continued research on starch-based emulsifiers, positioning America's corn farmers to grab a share of a global food emulsifiers market.

"It is encouraging for farmers to know that companies are looking for more environmentally friendly alternatives for biobased products," said Nebraska farmer and NCGA Feed Food and Industrial Action Team Chair Dan Wesely. "Corn farmers continue to produce more year over year. While corn is used for food products, animal feed, fuel and other uses annually, we historically have had enough corn left over to supply additional needs. In 2018, there was more than 2.2 billion bushels, or 55.8 million tons, of U.S. corn ending stocks."

The total prize pool for the contest was U.S. \$150,000. Each of the three winners received \$50,000.



Beyond Meat sets sights on fake bacon and steak

Beyond Meat is also working on fake bacon and steak. The two products are part of the company's longer-term innovation efforts, CEO Ethan Brown told CNN Business. They are "important as we build out the portfolio," he said, adding that the items are still in development.

Brown didn't share when Beyond plans to bring the items to market, noting that the company's researchers would need a "surprise breakthrough" to launch in the near future.

In addition to developing new products, Beyond Meat is constantly working to improve the meat substitutes it already sells. According to the company, it has improved its burger patty, using coconut oil and cocoa butter to make the product more meat-like. Beyond has also started selling its signature protein in a "ground beef" format.

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STE	ERS	HEIFERS		
5 bwf rwf strs 13 bwf rwf strs 6 blk bwf strs 3 blk strs 6 blk strs 6 blk strs	325@195.00 411@189.00 479@170.00 530@169.00 564@169.00	9 blk bwf hfrs 3 blk hfrs 3 blk hfrs 3 blk bfrs 14 blk hfrs	387@165.00 346@164.50 413@157.00 415@154.00 578@148.00	
6 blk strs 22 bwf rwf strs 26 blk strs 9 blk strs 4 blk strs 10 blk strs 11 blk strs 9 blk strs 25 bwf rwf strs 5 blk bulls 3 blk bulls	645@165.50 710@153.75 730@152.00 690@151.50 713@148.50 763@147.25 800@144.25 835@141.10 642@135.00 616@129.50	6 blk hfrs 6 blk hfrs 34 blk hfrs 13 blk hfrs 14 blk hfrs 8 blk red hfrs 7 rwf bwf hfrs 35 bwf rwf hfrs 8 blk hfrs 5 blk hfrs 5 blk hfrs 3 blk bwf hfrs	$\begin{array}{c} 519 @ 143.50 \\ 568 @ 143.50 \\ 655 @ 143.00 \\ 644 @ 141.00 \\ 692 @ 139.75 \\ 681 @ 138.50 \\ 638 @ 138.00 \\ 763 @ 137.25 \\ 737 @ 136.50 \\ 714 @ 136.00 \\ 645 @ 133.50 \\ 685 @ 129.50 \end{array}$	

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\$86. Trend on Cows & Bulls: Bulls steady; Cows \$3-\$4 lower.					
EARLY CONSIGNMENTS FOR THURSDAY, AUGUST 8: EXPECTING 2,500 HEAD • 300 heifers, 725 lbs. • 600 steers, 800-950 lbs. • 150 black Northern steers, 850 lbs. • 300 red & black Northern steers, 750-800 lbs. • 100 black heifers, 800 lbs.					
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Larry Womacks, Fieldman	Van Schmidt, Fieldman				
(620) 394-3273 (H)	(620) 367-2331 (H)				
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ST	EERS	33 mix	841@137.75	10 bkLim	642@139.00
8 blk	548@171.50	10 Sim	719@137.25	40 mix	735@137.00
4 blk	424@170.00	11 blk	798@135.25	5 blk	650@136.50
11 bkLim	544@170.00	41 mix	816@134.75	19 blk	762@135.75
9 bkbwf	653@157.00	12 bkbwl	800@134.00	32 mix	766@132.00
5 Brng	609@154.00	52 mix	918@133.80	6 blk	643@132.00
31 bkLim	650@154.00	14 blk	826@133.00	7 bkrd	707@130.00
5 bkbwf	555@153.50	10 bkbwl	883@132.50	14 blk	735@130.00
6 bkChr	630@152.00	39 mix	978@129.85	98 mix	842@129.50
6 blk	723@150.75	HE	EIFERS	44 mix	862@128.90
15 bkbwf	635@150.50	4 blk	395@159.00	22 blk	887@126.75
9 bkLim	737@149.50	11 bkbwl	465@152.00	63 mix	938@124.70
5 Sim	624@148.00	13 bkLim	475@152.00	8 bkrd	789@123.00
18 mix	726@144.50	7 blk	544@150.50	В	ULLS
9 bkrd	738@144.50	5 bkrd	570@144.00	3 blk	625@136.00
12 bkbwf	788@141.00	21 bkLim	1592@141.00		

Butcher Cows: \$47-\$75.00, mostly \$58-\$72.00, very active. Butcher Bulls: \$97-\$82.50, mostly \$88-\$94.00, \$2-\$3 higher.

BUTCHER	COWS	2 bkbwf	1230@70.00
1 bwf	1790@75.00	BUTCHER	BULLS
1 blk	1495@75.00	1 blk	2105@97.00
1 Rd Ang	1475@74.50	1 blk	1885@95.00
1 blk	1210@74.00	1 blk	1990@94.00
2 bkbwf	1665@72.00	1 blk	1965@92.00
2 blk	1500@72.00	1 blk	2010@91.50
2 blk	1635@71.00	1 blk	1500@90.00
2 bkrd	1453@71.00	1 blk	1605@89.50
	1 bwf 1 blk 1 Rd Ang 1 blk 2 bkbwf 2 blk 2 blk	1 blk 1495@75.00 1 Rd Ang 1475@74.50 1 blk 1210@74.00 2 bkbwf 1665@72.00 2 blk 1500@72.00 2 blk 1635@71.00	1 bwf 1790@75.00 BUTCHER 1 blk 1495@75.00 1 blk 1 Rd Ang 1475@74.50 1 blk 1 blk 1210@74.00 1 blk 2 bkbwf 1665@72.00 1 blk 2 blk 1500@72.00 1 blk 2 blk 1635@71.00 1 blk

EARLY CONSIGNMENTS FOR AUGUST 8

400 Fancy mostly blk strs & hfrs, 500-850 lbs, Fall calves, off the cow & double vac, hfrs open.

- 200 Fancy mostly blk strs & hfrs, 650-850 lbs, weaned 70 days or more, triple vac., hfrs open.
- 170 Angus & Red Angus strs & hfrs, 600-750 lbs, weaned 90 days & double vac., hfrs open.
- 55 blk Char strs & hfrs, 450-650 lbs, off the cow & vac.
- 70 blk red strs & hfrs, 700-900 lbs, off the grass.

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

Page 24 Grass & Grain, August 6, 2019 Stalk-worn sensor to measure crops' water use

Wearable technology will soon move from wrist to stalk. swapping measures of blood flow and respiration for sap flow and transpiration.

Their design won't have anyone confusing growing season with fashion season, but the University of Nebraska-Lincoln's James Schnable and Iowa State University colleagues are developing a Fitbit-like sensor to be worn by corn and other thick-stemmed crops.

Funded by a Breakthrough Technologies award from the National Science Foundation. the researchers are pursuing an elusive goal: measuring rates of sap flow in real time, actual fields and changing weather conditions.

Because sap flow indicates how much water a plant is using versus conserving,

measuring it with hourly or minute-by-minute precision would help researchers better understand how crops are responding to drought conditions. That, in turn, would allow researchers to compare the drought resistance of different genetic lines with greater speed and accuracy, Schnable said, leading to more water-efficient hybrids that can tolerate ever-harsher climates from Nebraska to Nigeria.

"There are different strategies plants can take and different strategies plant breeders can pursue depending on their goal, the environment they're breeding for and the crop they're working on," said Schnable, associate professor of agronomy and horticulture. "All of these, though, do require (that) you actually be

generator; Honda power wash

er w/Honda motor; floor jacks

Black Max port. air compressor

Pacific port. air compressor: Lin

coln 225-amp welder; Forney

180-amp welder; Coleman 5000

watt port, generator; shop lights

hand tools; 3/4" drive socket set

pipe wrenches; Ryobi chain saw

220 volts; cutting torch & bottles

log chains & boomers; Huskey mechanics tool box;

chargers 6 & 12 volt; Black Max

21 gal. air compressor, 40 psi; Huskey roll around tool cart; vise

on stand; Cummins 5.5 hp trans

fer pump; Cummins floor model drill press; hyd. pipe bender; lots

Mossberg Persuader 410 shot

gun, pistol grip handle, pump,

rifle, 22 cal., oct. barrel, #H003T

NIB; Henry Lone Ranger 308

win. rifle, lever action, Model

rifle, lever action, wmr, Mode

#H001M, NIB; Henry 327 mag rifle, Big Boy Model #H012M327,

steel, NIB; Henry 22 mag. Rifle

NIB; Winchester Model 94 rifle

lever action, 30-30 cal., NIB

Savage Axis XP rifle, 243 win w/Weaver scope, NIB; Colt 410

mag shot gun, BK wood, NIB; Tri

Star Arms Raptor Model 20 ga

shotgun, NIB; Marlin 30-30 ca

lever action rifle, #33586, NIB

Savage AT 22 cal. rifle, NIB

Savage A22 mag cal. rifle, NIB

Savage 17 HMR rifle, A17 SPTR

LAM, NIB; Savage 270 rifle, bolt

action: Mossberg 270 rifle, w

scope; Remington 308 cal. rifle

Model 700, bolt action, bull bar

rel, NIB; Remington Model 31

rifle; SKS rifle w/folding stock

New England Arms 30-06 rifle

single shot w/scope; Winchester

12 ga. shotgun; Taurus 17 cal. Pistol, NIB; S&W model 65 pis-

Henry 22

barrel. Model#H003TM

Model 500. NIB: Henry

of other shop items. *GUNS*

#214s308:

battery

pump

mac

dustrial 60 gal. air compressor

FARM EQUIPMENT AUCTION SATURDAY, AUGUST 17, 2019

TIME: 10:00 AM CT / 9:00 AM MT LOCATION: 2890 Evergreen Rd. - WALLACE, KS. From Wallace at Rd 26 go 11 miles South to Evergreen Rd & 3 miles east (Beside Dinas Church) Wichita-Logan County line on Arrowhead Rd. at Rd 30 go 5 miles North & 1 mile West.

TRACTORS & COMBINE 1975 JD 4630 tractor, QR tans. 5,678 hrs., 3pt., pto., duals, Ser.#17004 w/JD 10' dozer blade; 1978 JD 8630 tractor, 2,036 hrs., pto, 3 pt., QR tans. Outback guidance system, Ser.#8517R; 2017 JD 3038E tractor, 3pt., pto, 20 hrs., MFW w/JD D160 scoop (like new); 1983 Allis Chalmers 8070 trac tor, 3 pt. pto, duals, 2331 hrs.; 1985 Ford 1920 tractor, gas, 3 pt., pto., shuttle trans., 2956 hrs stuck in reverse; 1983 JD 7720 combine, hydro, w/224 platform needs front window; JD 853 row-head; BBK header trailer 5' header trailer; United Farm

Tools 400-bu. grain cart. *FARM EQUIPMENT

(2) FK 5x5 sweep plow w/pickers; JD MaxEmerge II planter 8-row; Krause 24' disk, Model #1956; Sunflower 16' disk; Sunflower 16' Crustbuster 40' springtooth; FK 24' rod weeder; (2) Hoeme 16 chisel plows; JD 5' mower, 3pt.; JD 8-section rotary hoe, drag Case 8' pull type rake; (3) JD 8x12 LZ hoe drills; Hesston 1014 hydro swing swather; 3-shank chisel, 3pt.; JD 535 round baler; Overhead machinery carrier; Case IH 5200-disc drill, 20', 3pt.; and Pride 1872 mower. 6'. TRUCKS. PICKUP & FORKLIFT 2000 Ford F-250 pickup, 5.4 diesel motor, auto., 4x4, non-run-ning; 1974 Ford LN 800 truck, 4x2 spd. trans., V-8 motor, 16 bed & hoist, roll over tarp; 1966 IHC truck, 4x2 spd. trans., 16' bed & hoist, hyd. drill fill auger; Ford F-350 truck, V-* motor, auto., auto roll-back bed; Toyota forklift, 3-stage, LP. *TRAILERS*

1000 gal. nurse trailer w/pump; 16' shop-built trailer; Travel EZ 18' camper trailer; 1000-gal fuel tank on trailer; wire roller on 2-wheel trailer; 45' semi van trailer.

***SHOP EQUIPMENT** Pacific 7500-watt diesel port.

tol, 357 cal., stainless. TERMS: Must show VALID ID to register. No Exceptions! Cash or approved check day of sale. No credit cards. No warranties exable to look at how much water the plant is using, not over just an entire growing season but really on a day-byday or hour-by-hour basis."

Understanding water use is especially important, Schnable said, given that a plant's ability to resist drought competes with its ability to produce food. When a plant opens the tiny pores in its leaves to welcome the carbon dioxide essential for photosynthesis - and eventually, food - some of its water escapes through those same pores, making it more susceptible to drought. Crops bred for higher yields invite in even more carbon dioxide, giving water more opportunities to depart.

Managing that physiological tug-of-war - or even finding ways to lengthen the rope at both ends — will become more critical by 2050, when the world will likely need to feed an additional two billion people while accounting for more-sporadic rainfall.

As of now, crop breeders usually assess new genetic lines by planting a series of trials under drought conditions, measuring the yields and comparing those yields to what's produced in a water-rich environment, Schnable said. The smaller the difference in yield, the better.

"So they're (currently) taking a lot of different things that could all feed into drought tolerance — they're all lumped together - and

they get this one output value, which is: What's the final yield," Schnable said.

The research team — which also includes Schnable's father, Patrick, at Iowa State - instead wants to pinpoint the conditions under which different crop varieties begin or stop conserving water, potentially helping customize varieties to different climates. Pairing those observations with genetic analyses of the varieties could also offer more detailed information about the practical influence of various genes in the field, guiding modification efforts in the lab.

"The more we can actually measure some of those (individual factors) in the field and look at the differences between varieties, the more we can make precise judgments about how two different lines with the same level of drought tolerance got there," Schnable said. "You could separate those (different factors) out and then breed for those individual factors separately.

"Think of it like this: You can compare two cars by how fast they go or, once you can start to pull apart (and) look at different parts of the engine, figure out how each part of the engine works well or poorly, then maybe start to combine the best of different engines together. But you can only do that if you can measure the performance of different parts separately instead of looking at just the final speed."

Poor Sap?



Watch our website for more pictures & personal property listing.

The team's project qualified for the Breakthrough Technologies program which the National Science Foundation developed for "high-risk, high-reward" pursuits - in part because no one has managed to develop a sensor that can monitor sap flow over a full growing season in the field.

But Iowa State's Liang Dong has crafted a design, which consists of sophisticated technology packed into a small but flexible package, that the team hopes will prove equal to some of the most stubborn challenges.

To gauge the rate of sap flow, the bracelet-like device will administer small amounts of heat to the stem it fits around. Tiny sensors above and below the micro-heater will then record the amount of heat that passes by, effectively measuring how quickly the sap is carrying the heat away - and, by association, how fast the sap is flowing. A combination of nanoscopic structures and fibers within the device should help insulate the sensors, preventing a loss of heat that could otherwise invalidate their readings.

Its flexibility comes by way of an elastic band that can stretch to accommodate the growth of corn stalks or other crop stems, including those of soybean and sorghum, that can widen substantially within weeks. The elasticity also serves another purpose: allowing the device to monitor a stem's diameter, which factors into the equations that describe how fast the heat is traveling and sap is flowing.

"The power of the sensors is (that) we can measure something that has not been

practical to measure before, which is how much water the plant is using on a very fine resolution," Schnable said. "The challenge is (that) if you design a tool to measure something that hasn't been measured before, how do you know if you're getting it right or not?"

The answer? Compare the sensor data against a known quantity - in this case, finely calibrated technology at Nebraska's Greenhouse Innovation Center. There, a series of conveyor belts, hyperspectral cameras and scales can detect faint changes in the water weight of individual plants that either do or don't sport the new sensors. Then, it's essentially just a matter of weighing one set of measurements against the other, Schnable said.

"That way we can tell if we're producing useful data or gibberish," he said.

It also captures what most excites him, on a personal level, about the project.

"My favorite collaborations are those where I'm working with people who have completely different skill sets than mine," Schnable said. "Dr. Dong came out of the biomedical field, which is why he knows how to build wearable sensors to address all sorts of different questions and problems. We're coming at the same problem from completely different backgrounds and completely different motivations.

"Just getting to have those conversations and learn about topics I never would have been exposed to in any sort of a normal plant science job is really fun."

320± Acres of Kearny County, Kansas Land LAND AUCTION MONDAY, AUGUST 19, 2019 — 1:30 PM SALE SITE: Memorial Bldg.— LAKIN, KANSAS

Tract 1 Legal Description: The E/2 of 24-23-37 Kearny Co., KS 320 acres including road ROWs).

and Located: 6 miles North of Lakin, KS on HWY 25 to RD 210 hen West 3 miles to "N" Road. Land is in Hartland NE township Land Description: CRP & dryland: 307± acres dryland & 6= acres native grass. CRP: 305.12± acres enrolled at \$40.00 per acre; Annual payment is \$12,205.00; Seller's Share is \$8,137.85 Fenant's Share is \$4,067.93: CRP Expires on 09-30-3022; 2019 Payment stays with the Seller; 2020 Payment goes to Buyer. Possession: On Closing.

Mineral Rights: Minerals Retained by the Seller until termination of current producing oil and gas leases.

Earnest Money: \$20,000.00 Down Day of Sale; Balance at closng in Certified Funds.

Taxes: 2019 taxes Prorated to Day of Closing.

Title Insurance: 50% Buyer; 50% Seller, Frazee Abstract & Ti-tle; Closing Fee: 50% Buyer; 50% Seller. Closing: On or Before September 30th. 2019.

Full Sale Bill Online at www.hammauction.com



S	Sell Or Buy		ftle	By Auctio	5	STARTING 10:30 A	TIME	Marys Tuesdays
				2 blk/bwf hfrs	645 @ 133.00	1 blk cow	1325 @ 59.50	CONSIGNMENTS FOR AUGUST 6:
				8 blk/bwf hfrs	698 @ 132.75	1 char cow	1030 @ 59.00	• 100 SimAngus steers & heifers, 700-800
			er. Cows and	60 mix hfrs	868 @ 131.25	1 blk cow	1260 @ 58.50	
bulls were ste	eady to \$2.00	higher.			EIFERETTES	1 wf cow 1 blk cow	1320 @ 57.50 1245 @ 57.00	lbs., weaned, vacc.
STEER & BU	LL CALVES	60 blk/red strs	864 @ 139.75	1 blk hfrt	1070 @ 85.00	1 wf cow	1080 @ 56.50	• 100 Angus steers & heifers, 700-800 lbs.,
1 blk str	460 @ 165.00	58 mix strs	887 @ 139.25	1 sim cow	1625 @ 76.50	1 blk cow	1395 @ 55.50	weaned, vacc.
6 blk strs	518 @ 163.00	56 mix strs	892 @ 138.75	1 blk cow	1625 @ 75.00	1 x-bred cow	1290 @ 55.00	• 64 blk steers & heifers, 650-800 lbs., vacc.
2 blk strs	530 @ 158.00	187 mix strs	946 @ 138.75	1 bwf cow	1485 @ 74.50	1 red cow	1065 @ 54.50	• 45 Angus strs, 700-750 lbs., weaned, vacc.
1 wf str	340 @ 148.00	46 blk/red strs	1002 @ 133.00	1 sim cow	1490 @ 74.00	1 blk cow	1325 @ 53.50	• 80 blk strs & hfrs, 650-750 lbs., weaned, vacc.
6 blk/red bulls	478 @ 140.00	61 mix strs	989 @ 126.00	1 red cow	1695 @ 72.50	1 blk cow	1225 @ 53.00	• 250 blk Red Angus strs, 825-875 lbs., off grass
2 blk/red bulls	408 @ 134.00	UEICER	R CALVES	1 blk cow	1225 @ 71.50			• 240 black steers, 850-900 lbs., off grass
STOCKER & FE		1 bwf hfr	520 @ 149.50	1 sim cow	1590 @ 70.50		ALF PAIRS	
8 blk strs	684 @ 151.00	6 blk/bwf hfrs	520 @ 149.50 519 @ 148.00	2 red cows	1390 @ 70.00	1 blk cow/cf	@ 1375.00	• 47 black steers, 850-900 lbs., off grass
8 blk/red strs	682 @ 150.00	3 blk hfrs	543 @ 141.50	1 red cow	1410 @ 69.50	1 blk cow/cf	@ 1310.00	• 124 black steers, 850-900 lbs., off grass
7 blk strs	577 @ 149.00	1 blk hfr	530 @ 138.00	1 blk cow 1 bwf cow	1335 @ 69.00 1400 @ 68.50	P	ULLS	• 61 black crossbred steers, 925-950 lbs.
7 blk strs	719 @ 149.00	1 blk hfr	340 @ 136.00	1 blk cow	1415 @ 68.00	1 blk bull	2215 @ 89.00	
117 blk/char strs	778 @ 149.00			1 blk cow	1400 @ 67.00	1 blk bull	1800 @ 88.00	CONSIGNMENTS FOR AUGUST 13:
6 blk strs	668 @ 147.50		EEDER HEIFERS	1 red cow	1255 @ 65.50	1 blk bull	1905 @ 87.50	
9 blk/red strs	616 @ 147.00	13 blk hfrs	605 @ 143.50	1 blk cow	1230 @ 65.00	1 blk bull	1975 @ 82.50	• 185 Hereford steers, 750-850 lbs., off grass
62 mix strs	831 @ 146.00	4 blk hfrs	615 @ 142.50	1 red cow	1225 @ 64.50	1 blk bull	2095 @ 82.00	• 50 Hereford heifers, 725-775 lbs., OCV'd, vacc.
3 blk strs	620 @ 145.50	3 blk hfrs	587 @ 142.00	1 sim cow	1195 @ 63.00	1 blk bull	1895 @ 80.00	Above from Brainard Cattle Co., vacc., no implants
57 blk/bwf strs	812 @ 145.25	1 blk hfr	625 @ 142.00	1 bwf cow	1255 @ 61.50	1 blk bull	1665 @ 79.00	· · ·
14 blk/bwf strs	815 @ 145.25	6 blk hfrs	628 @ 141.50					• 80 Angus Char strs & hfrs, 650-800 lbs., vacc.
6 blk strs	705 @ 145.00	6 blk hfrs	588 @ 137.50					• 54 black steers, 900-925 lbs., off grass
3 blk/sim strs	745 @ 145.00	1 blk hfr	595 @ 135.00	۱۸/	ATCH OU		ONG	• 120 blk Red Angus strs, 900-925 lbs., off grass
60 mix strs 191 blk/bwf strs	854 @ 144.25 882 @ 142.10	20 blk hfrs 58 mix hfrs	731 @ 133.50 856 @ 133.25					• 240 black steers, 800-900 lbs., off grass
57 mix strs	882 @ 142.10 866 @ 141.00	62 blk/bwf hfrs	866 @ 133.25	LIV	E ON DVA	Auctions.	com	240 black steels, 000-500 lbs., oli glass
							u ano o o o o dano	

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

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