

# Extension Connection

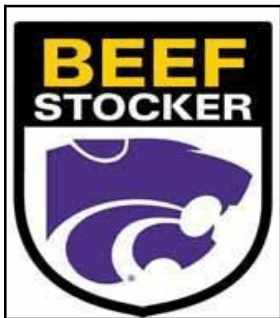
**AGRICULTURE NEWSLETTER**

**By: Katelyn Barthol September 2016**

## Topics

- K-State Beef Stocker Field Day**
- K-State Ranching Summit**
- Beef Cattle Institute launches pregnancy analytics mobile app**
- Livestock biosecurity to be featured during 3i Show**
- 2016 Kansas State Fair Results**
- Starter fertilizers for wheat can pay if used correctly**
- New corn disease confirmed in United States**
- Lawn Seeding Deadline**
- Upcoming Events**
- FACS Position Announcement**

## K-State Beef Stocker Field Day



The beef cattle outlook, parasite and fly control options as well as technology applications for beef cattle operations are among topics planned for the 2016 Kansas State University Beef Stocker Field Day on Thursday, Sept. 22.

The day is designed to provide the latest practical information for producers to aid decision making in the current dynamic beef industry environment.

The event starts with registration and coffee at 9:30 a.m. and the program at 10:15 a.m. A barbecue lunch is provided and the day ends with an evening social, the “Cutting Bull’s Lament 2016” at 5:30 p.m.

A panel of producers talking about pasture burning issues and other presentations are on the agenda.

- Beef Cattle Outlook
- Producer Panel: Pasture Burning – The necessity,

alternatives and consequences

- Animal Health Research Update
- Receiving Diets – Implications on Health and Performance
- Parasite and Fly Control Options
- Technology Applications for Beef Cattle Operations
- Beef Cattle Handling

## K-State Ranching Summit

K-State will be hosting an K-State Ranching



Summit on October 7, 2016 at the K-State Student Union Grand Ballroom. This summit is designed to equip managers with the skills to address the challenges of ranching in the business climate of today and tomorrow. The following are the topics that will be covered:

- \*Defining the unit of profit in cow-calf operations
- \*Evaluating the cost of alternative and new grazing opportunities
- \*Solving complex problems in ranching
- \*Profitable systems approaches to ranch management
- \*Farm economy and financial implications
- \*Building communities to support ranching in 2050

If you are interested in attending this summit, go to <http://www.KSUGrass.org> for online registration and additional details.

## Beef Cattle Institute launches pregnancy analytics mobile app

The Beef Cattle Institute at Kansas State University is making it easier for producers and veterinarians to manage pregnancy diagnosis information with a new mobile app called Pregnancy Analytics.



Designed to serve as an instant data collection and analysis tool, the app will facilitate the transformation of data into actionable information for individual herds.

Not only will the app allow cattlemen to input records chute-side with ease, but it will evaluate the success of the breeding program at the time that a herd is palpated and provide a benchmark for comparison against other herds in the region.

The app will accept the following information:

- Pasture ID/herd name.
- Breed — up to three breeds, or other cow description.
- Cow ID.
- Age.
- Body condition score.
- Number of days bred.

From this, projected calving dates are generated and graphs are created to display the distribution of the producer's future calving season.

"The Pregnancy Analytics app offers easier data entry than using a pen and paper while providing the immediate data assessment and visualization of a chute-side computer," said Robert Larson, the Roger E. and M. Elizabeth Coleman chair in food animal production medicine at Kansas State University's College of Veterinary Medicine. "Additionally, the data and report can be emailed to the client or stored on the device, and the data can be converted to a spreadsheet for further appraisal."

According to Brad White, interim director of the Beef Cattle Institute, or BCI, and professor of production medicine, this is the first of several interactive decision-making tools that will be designed for industry use.

"Veterinarians can use this app to convert pregnancy-check data to actionable information for their clients," he said. "This is the first of several apps that BCI will be releasing to enhance decision-making by veterinarians and their beef clients."

The Pregnancy Analytics app is available for download for Apple or Android markets. More

information can be found at [beefcattleinstitute.org](http://beefcattleinstitute.org), or contact 785-564-7459 for assistance.

### Livestock biosecurity to be featured during 3i Show



Growing and raising food to feed a growing world population is an important job and a huge undertaking for all farmers and ranchers. Besides the task of raising a wholesome food product, producers are also

responsible for keeping that food supply safe. That task may seem daunting to many.

K-State Research and Extension, Ford County Extension, Ford County Emergency Management and the 3i Show have teamed up to offer farmers, ranchers, emergency personnel and the general public the opportunity to learn more about keeping an important part of the food supply, livestock, safe in southwest Kansas.

During the 3i Show, A.J. Tarpoff, K-State Extension Beef veterinarian, will present the program "Protecting Livestock from Disease: Basics of Biosecurity" on Friday Oct. 14 at 11 a.m. and again at 4 p.m.

The goal of biosecurity is to protect animal health, Tarpoff said. Biosecurity incorporates those management practices aimed at keeping new diseases off the farm and keeping diseases from spreading from group to group on the farm. Biosecurity is the most effective method of disease control.

Tarpoff will share how livestock producers can control disease by controlling animal movement. His program will include biosecurity tips related to all livestock types and operations.

For more information about the Livestock Biosecurity program, contact the Ford County Extension office at 620-227-4542. For more information about the 3i Show, email the Western Kansas Manufacturer's Association at [info@3ishow.com](mailto:info@3ishow.com) or visit [www.3ishow.com](http://www.3ishow.com).

### 2016 Kansas State Fair Results

The 2016 Kansas State Fair has come and gone.

Finney County had 4 individuals whose Market Wheat Show entries qualified and placed at the Kansas State Fair. A big congratulations to those individuals! Following are the results for Finney County from the Kansas State Fair Market Wheat Show.

#### Market Wheat Show

##### Class 1: All Hard White Wheat Varieties

1<sup>st</sup> Place: Abby Murrell - Danby Variety

4<sup>th</sup> Place: Kennan Murrell - Aspen Variety

5<sup>th</sup> Place: Elly Murrell - Danby Variety

##### Class 3: All Other Hard Red Winter Wheat

3<sup>rd</sup> Place: Rapp Farms - Post Rock Variety

### **Starter fertilizers for wheat can pay if used correctly**

A little fertilizer at or near planting time can help jumpstart wheat toward a successful crop, but



producers have to be careful to apply it correctly, said Dorivar Ruiz Diaz, associate professor of agronomy at Kansas State University.

In general, wheat is considered a highly responsive crop to starter fertilizers, particularly phosphorus and nitrogen, he said. When applying a starter fertilizer for wheat, application methods and rates are much more flexible with phosphorus than nitrogen. “An application of phosphorus as starter fertilizer can be an effective method for part or even all the phosphorus needs of wheat. Wheat plants typically show a significant increase in fall tillers and better root development with the use of starter fertilizer – both phosphorus and nitrogen. Winterkill can also be reduced with the use of starter fertilizers, particularly in low phosphorus testing soils,” said Ruiz Diaz, who is a nutrient management specialist with K-State Research and Extension. Most sources of phosphorus, except thiosulfate, can be safely applied at recommended rates and with any application method, including in the seed row. “Phosphorus fertilizer application for wheat can be done through the drill with the seed,” Ruiz Diaz said. “This would either be in addition to, or instead of, any pre-plant phosphorus applications depending on soil test and recommended application rate.”

The use of dry fertilizer sources with air seeders can be a popular and practical option; however, other phosphorus sources, including liquid, are agronomically equivalent and decisions should be

based on cost and adaptability for each operation, he added. A little nitrogen in a starter fertilizer can also benefit wheat, but growers should be careful about how fertilizers containing nitrogen and potassium are applied as starters for wheat, he said. When applying fertilizer with the seed, nitrogen and potassium rates should be limited to avoid potential toxicity to the seedling. When placing starter fertilizer in direct contact with wheat seed, Ruiz Diaz said producers should use the following guidelines:

- \* In 15-inch spaced rows, apply no more than 16 pounds of nitrogen-plus-potash for medium to fine textured soils, or 11 pounds for sandy or dry soils.

- \* In 10-inch rows, use a maximum of 24 pounds of nitrogen-plus-potash for medium to fine soils and 17 pounds for sandy or dry soils.

- \* For 6- to 8-inch rows, no more than 30 pounds of nitrogen-plus-potash should be applied to medium to fine soils and 21 pounds for sandy or dry soils.

- \* In general, no urea-based nitrogen should be applied with the seed in any row spacing or soil type.

Planting equipment can make a bit of difference in these guidelines, he added. “Air seeders that place the starter fertilizer and seed in a band an inch or two wide, rather than a narrow seed slot, provide some margin of safety because the concentration of the fertilizer and seed is lower in these diffuse bands,” Ruiz Diaz said. “In this scenario, adding a little extra nitrogen fertilizer to the starter is less likely to injure the seed - but it is still a risk.”

What about blending dry 18-46-0 (DAP or Diammonium phosphate) or 11-52-0 (MAP or Monoammonium phosphate) directly with the seed in the hopper? Will the nitrogen in these products hurt the seed? The nitrogen in these fertilizer products is in the ammonium-nitrogen form, not the urea-nitrogen form, and is much less likely to injure the wheat seed, even though it is in direct seed contact, Ruiz Diaz said. As for rates, the guidelines mentioned previously should be used. If DAP or MAP is mixed with the seed, the mixture can safely be left in the seed hopper overnight without injuring the seed or gumming up the works. Although the response of wheat to DAP and MAP dry or 10-34-0 liquid starter fertilizer products is primarily from the P, the small amount of N that is present in these products may also be important in some cases, he said. “If no preplant nitrogen was applied, and the soil has little or no carryover nitrogen from the previous crop, then the nitrogen from these fertilizer products could benefit the wheat, in addition to the phosphorus,” the K-State nutrient management specialist said.

## New corn disease confirmed in United States



A new disease, bacterial leaf streak, has made its way into corn crops throughout the heartland. It's so new to the United States that it is unclear whether it will pose a threat to this

year's yields, according to Kansas State University plant pathologist Doug Jardine.

The U.S. Department of Agriculture-Animal and Plant Health Inspection Service confirmed the presence of the new disease Aug. 26, 2016. According to its announcement, the bacteria that causes bacterial leaf streak disease is *Xanthomonas vasicola* pv. *vasculorum* (Xvv). APHIS does not consider it to be of quarantine significance and will treat it as other bacterial diseases of corn such as Goss's bacterial blight, Jardine said.

The disease is thought to have occurred on corn in South Africa, but it has been most notably associated with gumming disease of sugarcane. At this time, it is not known how it made its way to the United States or how long it has been here. It was first observed in samples submitted to the University of Nebraska-Lincoln Plant and Pest Diagnostic Clinic in 2014, but a lack of historical information and the appropriate diagnostic methods delayed its identification until APHIS positively identified the bacteria from a sample collected in Nebraska in August 2016.

Following its initial confirmation, APHIS, working with state departments of agriculture and extension plant pathologists, began a survey of corn fields across the western Corn Belt. Bacterial leaf streak disease has now been identified in nine states including Nebraska, Kansas, Colorado, Iowa, Illinois, Minnesota, South Dakota, Texas and Oklahoma, Jardine said.

"In Kansas, it has been positively identified in 12 counties, most of which are located on the High Plains," he said. "Three additional counties have had corn with symptoms of the disease, but samples have not yet been confirmed definitively by DNA analysis."

Infected corn leaves exhibit narrow tan to brown streaks that range from less than an inch to several inches long.

"To the untrained eye, the disease can look very similar to the common fungal foliar disease, gray leaf spot," Jardine said. "One diagnostic key is that

bacterial leaf streak has narrow, wavy-edged lesions compared to gray leaf spot, which has very sharp, straight-edged lesions that follow the veins in the leaf. Sometimes the lesions occur close to the midrib; in other cases, they occur across the leaf blade."

A second diagnostic key is that when backlit, light passes through bacterial streak lesions in a translucent manner compared to gray leaf spot, which blocks the light and appears opaque. Disease symptoms have been observed as early as growth stage V7 in corn, with lesions appearing on lower leaves first. Lesions can expand to cover larger areas and under favorable conditions, they spread to the upper leaves. In extreme cases, lesions may extend the entire length of the leaf and coalesce to form large, necrotic areas.

It is not currently known how the disease has spread to so many states, Jardine said, but a current hypothesis is that it is seed transmitted. Movement within a field or from field to field may be by the bacteria blowing in the wind created by thunderstorms. Unlike Goss's blight, it does not appear that it needs a wound to aid it in getting into the plant.

"Under what conditions is it likely to occur? By far the single largest scenario associated with the disease is corn being produced in a continuous, no-till, sprinkler-irrigated production system," Jardine said. "This is likely the reason that most positive counties in Kansas are in the western part of the state. That being said, the disease has also been found in furrow irrigated fields, as well as dryland fields in a strict corn-soybean rotation."

No research has been conducted to date to determine if there will be any impact on yield, the K-State plant pathologist said. Disease management options are currently limited. Since it is a bacterial disease, fungicides are not effective. Because of the highly erodible nature of most Kansas soils, residue management will not likely be an option except perhaps in southeast Kansas.

"We do not know how long the bacteria can reside in old crop debris, but observationally, it can survive through the rotational year to soybeans," Jardine said. "Observations in hybrid demonstration trials in Nebraska indicate that there are differences in hybrid response to the disease with some being much more susceptible than others. Long term, hybrid selection, as with Goss's blight, will be the primary means of management."

As with any crop disease, he added, samples can be submitted to the K-State Plant Disease Diagnostic clinic through any county or district extension office

or directly to the clinic. Information on sample submission can be found at [tinyurl.com/hm9eale](http://tinyurl.com/hm9eale).

### Lawn Seeding Deadline Nears



September is the best month to reseed cool-season lawns such as tall fescue and Kentucky bluegrass. However, you can get by with an early to mid-October planting

for tall fescue. October 15 is generally considered the last day for safely planting or overseeding a tall fescue lawn in the fall. If you do attempt a late seeding, take special care not to allow plants to dry out. Anything that slows growth will make it less likely that plants will mature enough to survive the winter.

Seedings done after the cut-off date can be successful, but the success rate goes down the later the planting date. Late plantings that fail are usually not killed by cold temperatures but rather desiccation. The freezing and thawing of soils heave poorly rooted grass plants out of the ground, which then dry and die. Keeping plants watered will help maximize root growth before freezing weather arrives. (Ward Upham)

### Upcoming Events

#### **September:**

**22<sup>nd</sup>:** Master Gardeners Training at the  
Finney County Extension office

**30<sup>th</sup>-Oct 2<sup>nd</sup>:** Kansas Junior Livestock Show

#### **October:**

**4<sup>th</sup>:** Risk & Profit Conference @ SW  
Regional Office

**5<sup>th</sup>:** Soil Health & Veggie Crops Workshop in  
Liberal, KS

**13<sup>th</sup> & 20<sup>th</sup> :** Master Gardener Training @  
Finney County Extension office



### **EXTENSION AGENT FAMILY & CONSUMER SCIENCES**

Position serves Finney County  
Office location is Garden City, KS

**See: [www.ksre.ksu.edu/jobs](http://www.ksre.ksu.edu/jobs) for  
responsibilities, qualifications,  
and application procedure.**

Application Deadline: 10/05/16.

K-State Research and Extension is an  
EOE of individuals with disabilities  
and protected veterans.  
Background check required.