

# Agriculture

## CENTRAL KANSAS EXTENSION DISTRICT NEWS

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**September 2023**

### Upcoming Events

#### September

- 26 Forage Testing  
Coffee Shop Talk
- 28 Stocker Field Day

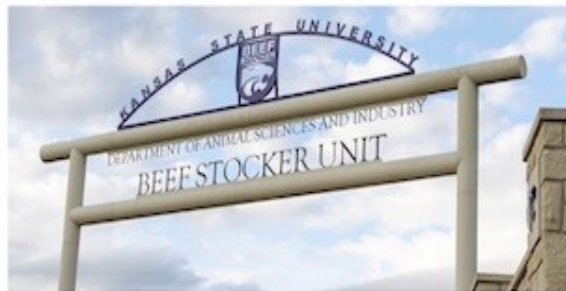


### Podcast Pick of the Month

Author: Agriculture Today hosted by Shelby Varner

Topic: Farmers go to Court (recent court case between farmers in KS), Ariel Seeding Cover Crops, and When to Preg Check Cattle

Check out this month's Podcast Pick of the Month. Wednesday's program: K-State law professor, Roger McEowen, begins the show with a review of a recent court case between farmers in Kansas. The case involves road right-of-way and trespassing. The show continues with a discussion about ariel seeding with K-State crop production specialist from the Wildcat District James Coover. He mentions factors that producers should take into consideration when deciding on ariel seeding cover crops. The Beef Cattle Institute's Ask the Experts rounds out today's show as K-State's Brad White, Brian Lubbers and Bob Larson have a conversation about cattle producers deciding when to check their cattle for pregnancy.



## K-STATE BEEF STOCKER FIELD DAY

SEPTEMBER 28, 2023

K-STATE BEEF STOCKER UNIT  
4330 Marlatt Avenue, Manhattan, KS

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## **Soil Variability and Starter Fertilizer in Wheat**

*Jay Wisbey, CKD Crop Production Agent*

Wheat is very responsive to Phosphate fertilizer. The combination of cold soils and the need for plants to develop a good root system and tillers in the fall lends to fertilization playing a key role in establishing your wheat crop.

Soil sampling is great in determining how much phosphate a crop needs, but you also need to remember that a composite sample is equivalent to a field average sample. Do you know how much variability you might find across the farm and how that could play into the stand establishment?

I have a field that I composited sampled and later had it sampled in 2.5-acre grids. The composite returned a pH of 5.7 and a p1 phosphate test of 20 ppm. When I received the grids sample results, I found that the pH varies from 4.5 to 6.8. Forty percent of the farm was under 5.4 pH, low enough to hinder some wheat varieties with aluminum toxicity. Lime has been applied post-sampling to correct some of those issues, but even that is not instantaneous and takes time for the soil to react. Ultimately, it will take time and more ag lime to address the acid soil issue.

The phosphate of that same farm ranged from 11 ppm to 41 ppm, you can find some small areas of the field where the wheat crop does not need any phosphorus. Those areas are even smaller when you combine good pH and phosphate tests in the same location.

Starter fertilizer is advisable vs. broadcast for a multitude of reasons. Phosphorus does not readily move through the soil like nitrogen, so the location of the nutrient is critical. Placement at the seed will provide phosphorus where the plant needs it early in the season, while plants are small and temperatures are cool. The effect of placement is more pronounced in acid soils as excessive aluminum content in acid soils ties up nutrients before plants can receive the benefit. Starter helps this by creating a narrow band where roots can grow through versus nutrients being diluted in a broadcast application.

How much nutrients are safe to apply with seed depends on a few variables. Type of fertilizer, row spacing, soil texture and moisture content of soils. Below is a chart from our soil fertility specialist Dr. Dorivar Ruiz Diaz that provides guidelines as to total nutrients in various row spacing and soils.

The table mentions no urea-containing fertilizers. The issue with urea is it converts to ammonia, which is toxic to plant roots. I recognize that some producers do add some urea in starter blends. Most generally, it is at very low rates, and rarely do we see impacts but producers should recognize the risk in that application.

### **Suggested maximum rates of fertilizer to apply directly with the wheat seed**

<b>Row spacing (inches)</b>	<b>Pounds N + K<sub>2</sub>O (No urea containing fertilizers)</b>	
	<u>Medium-to-fine soil textures</u>	<u>Course textures or dry soils</u>
15	16	11
10	24	17
6-8	30	21

# “Coffee Shop” Talks on Forage Testing, Nitrates, and Prussic Acid

**Tuesday, September 26, 2023**

9:00 AM

Minneapolis VFW Post  
311 W 2nd St Minneapolis

1:00 PM

American Ag Credit - Basement  
925 W. Magnolia st Salina

Are you considering testing your forage or crop residue for nitrates(N) this year? Ever wonder how accurate the results are when you send in a sample of hay or silage? Do you really understand what all the jargon on that sheet of paper means or how to use the information you get back?

Join us for one or both “coffee shop” talks that will answer these questions and many others.

## Topics of discussion:

- Nitrate & prussic acid concerns (what, where, and how)
- Why even sample forages at all?
- Using proper sampling protocols
- What test(s) should I order?
- How to interpret and use your results

## Presenters:

- Justine Henderson  
CKD Livestock Production Agent

Registration fee is \$5 (due at the door). Please let us know if you're planning to come by Friday, September 22.

To register or for more information, scan the code, call (785) 392-2147 or email [jwh04@ksu.edu](mailto:jwh04@ksu.edu).



  
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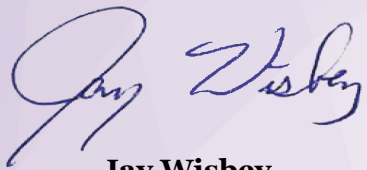
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Address Service Requested

The enclosed material is for your information. If we can be of further assistance, feel free to call or drop by the Extension Office.

Sincerely,



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