



Flint Hills Extension District  
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*Knowledge  
for Life*



## Upcoming Events

*The following are area or Statewide Agriculture, and/or Community Development/4-H events.*

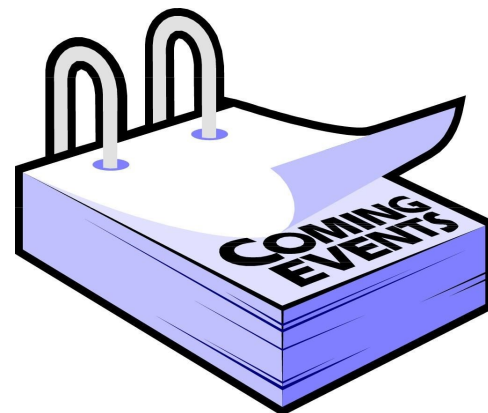
*For more information on these events please contact the Extension Office*

### December

- 8-10– Kansas Turfgrass Conference– Topeka
- 9– Winning the Game Corn Marketing Workshop– Herington
- 25– Merry Christmas!

### January

- 1– Happy New Year!
- 6– KSU Calving School– Emporia
- 11– KSU Calving School– Winfield
- 13– KSU Calving School– Blue Rapids
- 21– KSU Calving School– Dodge City



# Flint Hills District

## Agriculture & Community Development

DECEMBER 2020

### K-State Ag Economist Explains Benefits of Profitability Maps

MANHATTAN, Kan. – Satellites, yield monitors and numerous other technologies have given farmers massive amounts of information about how crops perform on their land.

The challenge they often find, however, is how to make sense of that data.

Terry Griffin, a precision agriculture economist at Kansas State University, said yield maps– developed from the volumes of data collected in a field – have become more common, providing guidance on soil moisture, yield and other characteristics of the land. But those maps are not enough.

“All of us who have been dealing with yield monitor data have been making maps for a few decades,” Griffin said. “But rather than a map of the yield for that field, we can convert that to a map of profitability, which then gives us site-specific information about whether parts of the field are profitable or not.”

Profitability maps, he said, combine information on yield, sale price of the crop, and the inputs applied to each section of a field. Maps are color-coded, clearly indicating to farmers what parts of their field are making money, losing money or breaking even.

“This is especially important when we are looking at profitability maps over time,” Griffin said. “One year may be an anomaly, but if we see certain parts of the field that are unprofitable year after year, then we have information to make different long-term decisions, especially if our land rental agreements are conducive to do so.”

Simply put, profitability maps allow farmers to target the use of inputs in a way that will make the most money. For example, using information from a profitability map, a farmer may choose to apply fertilizer only in sections where soil conditions are conducive to growing successful crops. Doing so reduces inputs and the area that an applicator has to travel to nourish that field.

Farm mapping software– some of which farmers already own – can help them build their own profitability maps, Griffin said. The challenge, though, is getting accurate data on yield, fertility, inputs and crop prices.

Yield monitors, which allow such farm equipment as combine harvesters or tractors to gather information as they go about their work, should be properly calibrated to account for such things as the combine speeding up or slowing down, or running on a hill side.

Information on inputs, particularly when a farmer is using a third-party to apply variable rate applications, can be much more difficult to collect, according to Griffin.

“One of the things I’d ask farmers to consider, as part of the agreement with your service provider, is to receive not only a map on paper, but also receive the electronic data from the as-applied applications for your record, and for the ability to create the profitability maps,” he said.

Griffin was recently featured in a podcast from the University of Nebraska in which he talked in-depth about profitability mapping. A link to that podcast is available online through K-State’s Department of Agricultural Economics.

More information on precision agriculture and profitability also is available online from K-State Research and Extension.



*"The ultimate goal of farming is not the growing of crops, but the cultivation and perfection of human beings."*  
*-Masanobu Fukuoka*

## Happy Holidays!

The holiday season is upon us! Do you hope it will be a white Christmas this year? I do as long as I don't have to drive in it!

Even though the holidays may look a little different this year, remember that the most important thing is that you and your family are happy and healthy.

As we begin decorating for the Christmas season and anticipating snow and cold weather, I want you to think about what needs completed before we welcome Jack Frost to Kansas. Remember to store garden hoses for the winter so that they don't freeze, service and store power equipment, winterize your plants, and constantly check and bed down livestock living outside in the winter weather. According to a 2017 K-State Research and Extension article, Dr. AJ Tarpoff stated, "Cattle have the right winter coat for cold weather, but whenever it starts to get windy, wet and cold, especially on frozen ground, the cattle want to find a nice, dry area to lie down and rest," he said. "Bedding those pens, giving them the opportunity to lie down and rest decreases the stress on those cattle and allows them to increase their comfort level so they can perform at a high rate even in stressful conditions."

For more information on steps to prepare your livestock, crops, and equipment for the winter weather, please feel free to contact me at anytime, or check out the K-State Research and Extension web page.

Best,  
 Shannon  
 (Agriculture/4-H Agent)

Stay connected with the Flint Hills District

**-Facebook:**

K-State Research and Extension-Flint-Hills District

**-Website:** [www.flinthills.ksu.edu](http://www.flinthills.ksu.edu)

**-Mailing list:** Call the office to be added (620)767-5136 or email Shannon at [spspencer@ksu.edu](mailto:spspencer@ksu.edu)



## December Ag Fact

About a third of a steer is used for beef production. The rest of the animal is used to make by-products found in medicines, cosmetics, detergents, insulation, and much more!



## Poinsettia Care

Modern poinsettia varieties stay attractive for a long time if given proper care. Place your poinsettia in a sunny window or the brightest area of the room, but don't let it touch cold window panes. The day temperature should be 65 to 75 degrees F. with 60 to 65 degrees at night. Temperatures above 75 degrees will shorten bloom life, and below 60 degrees may cause root rot. Move plants away from drafty windows at night or draw drapes between them to avoid damage from the cold.

Poinsettias are somewhat finicky in regard to soil moisture. Avoid overwatering because poinsettias do not like "wet feet." On the other hand, if the plant is allowed to wilt, it will drop some leaves. So how do you maintain proper moisture? Examine the potting soil daily by sticking your finger about one-half inch deep into the soil. If it is dry to this depth, the plant needs water. When it becomes dry to the touch, water the plant with lukewarm water until some water runs out of the drainage hole, then discard the drainage water. (Ward Upham)



## K-State Cattle Experts Advise To Prep Water Systems for Winter

MANHATTAN, Kan. – There is nothing like a refreshing drink of water to hydrate one's body, but what happens when the only available water is frozen?

As beef producers manage the herd in dropping temperatures this winter, Kansas State University Beef Cattle Institute experts stress that now is the time to make sure the watering systems are set up for full time access to clean, drinkable water.

"Cattle will typically drink about 1 gallon of water per day for every 100 pounds of weight they maintain," said veterinarian and BCI director Brad White on a recent Cattle Chat podcast.

Veterinarian Bob Larson added that lactating cows will consume more water than dry cows.

"Water is the most important nutrient for overall cattle health and production," Larson said. He added that it is important for cattle to have access to clean water at all times.

The experts said now is the time to consider the size of the tank needed to keep the water flowing ice free this winter. For some, that may mean investing in frost-free watering systems.

"Investing in a freezeproof waterer can be expensive but the savings in time and labor of breaking ice may be well worth it," White said. "The cattle's consumption of water will also increase if the water is free flowing at all times."

Even with frost free systems, the veterinarians agreed that cattle producers need to clean them periodically.

"Cattle waterers can get hay debris and other saliva and dirt in them throughout the winter so be sure to clean them often," White said.

And if cattle are drinking water from a well, White advised having the eater tested periodically to make sure it is safe.

To hear the full discussion on winter water resources, listen to the BCI Cattle Chat podcast.

