

BEEF LINE

December 2020



Purdue University Extension Service-Fulton County
1009 W 3rd Street, Rochester, IN 46975

Purdue Extension launches virtual program for beef producers

WEST LAFAYETTE, Ind. — Purdue Extension beef experts are hosting a new program for producers with less than five years of experience or individuals considering starting a beef cattle operation. The virtual program, Purdue Beef Basics, is scheduled for Tuesday evenings from 6:30 p.m.-8:30 p.m. (ET) starting on Jan. 19 and ending on March 9, 2021.

Participants will gain knowledge and skills related to beef cattle management and establish good recordkeeping habits. Purdue University professors and Extension specialists and educators will lead each of the eight sessions.

Session topics include:

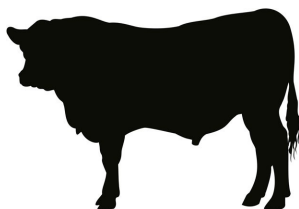
- Overview of the beef cattle industry
- Animal behavior
- Stockmanship and facilities
- Beef cattle health
- Forages and nutrition
- Beef cattle genetic selection and reproduction

The registration fee is \$40 per individual.

Register at <https://tinyurl.com/PUBeefBasics> by Jan. 17.

For more information, contact Sadie Davis at 812-659-2122 or davis186@purdue.edu.

Inside this issue	
Controlling Pasture Weeds Flyer	Pg. 2
IBCA Area Beef Flyer	Pg. 3
Little Mouse Big Problem	Pg. 4-5
What Mama Teaches	Pg. 6
Yellow Foxtail	Pg. 7



Purdue University is an equal opportunity/equal access/affirmative action institution.
574-223-3397 | mkepler@purdue.edu | <https://extension.purdue.edu/Fulton/pages/default.aspx>



REGISTRATION



Register Online:
www.purdueag.tv



Register by 5 PM (EST)
02.09.2021
 To be eligible for door prizes



Cost = Free



EA/EOU

AGENDA

7:00-8:30 PM (EST)

Introducing Scholer Beef Farm
 Ron Lemenager & Scott Cronk

What Study was Done at Scholer Farm?
 Ron Lemenager & Keith Johnson

Why be Concerned About Weeds in a Pasture?
 How to Reduce Weeds in a Pasture?
 Keith Johnson & Bill Johnson

Steps to Getting Herbicides Approved for Use
 Keith Johnson &
 Stacie Songer, Corteva AgriScience

The Results: Drone Flight
 Keith Johnson & John Scott

The Results: Weed Control Ratings
 Marcelo Zimmer

Q & A

With Presenters!





INDIANA
BEEF CATTLE
ASSOCIATION

JOIN US FOR THE 2021 IBCA-PURDUE EXTENSION AREA BEEF MEETING!

JANUARY 12, 2021 @ 7:00 PM

In light of the COVID-19 pandemic, the Indiana Beef Cattle Association and the Purdue University Cooperative Extension Service Beef Team will be hosting a Virtual Seminar to provide both educational programming and an IBCA-IBC annual update.

During the Virtual Seminar, we will enable you to share your ideas, exchange information on affiliate activities and offer Q&A for the educational videos.

Meeting Program:
IBCA-IBC Updates, Update from Indiana State Board of Animal Health, NCBA Public Policy Update, Update on Black Vulture Predation from USDA APHIS Wildlife Services, Update from Indiana Junior Beef Cattle Association and Extension Service Educational Videos.

After starting up my summer long inactive log splitter this fall and seeing five mice packed around the motor scurry, I thought this Ohio State article was appropriate. Mark



Mice can find any number of comfortable places to nest!

Photo: Keegan Gelley

Little Mouse, Big Problems!

– [Christine Gelley](#), Agriculture and Natural Resources Educator, Noble County OSU Extension (This article was originally published by Progressive Forage magazine)

The damage that a little mouse can do to electrical systems may have great impacts on the functionality of farm equipment. Before putting equipment in storage for winter, do routine maintenance, including preventing mice from taking up residence in your tractor cab.

One quarter of house fires with undetermined causes are assumed to be caused by rodents chewing on electrical wires. This can also be the cause of many tractor malfunctions. With the risk of electrocution, it makes you wonder why would they chew on electrical wires in the first place?

The answer is easy. They chew on everything. Mice, rats, and other rodents have teeth that are constantly growing and therefore they are constantly gnawing on any material they can find to file their teeth. Electrical wires are often hidden from view in places that would be cozy for rodent nests and offer convenient access to wire insulation to chew. People rarely notice damage to the wires until an electrical system fails to work when they need it.

Modern farm equipment operates on a series of electrical systems to connect systems to each other and enable safety functions. A weakness somewhere in the circuit could cause malfunctions to the main electrical system, throwing codes, and triggering safety shut offs.

For example, if a mouse exposes wires to a seat sensor, the motor may refuse to run because it seems that the seat is empty. Imagine this happened to you. Your first idea may be to check if something is wrong with the motor or the battery, but upon inspection you find nothing wrong, and call your mechanic for help. Upon diagnosis, the issue traces back to the electrical system. Your mechanic flips up the tractor seat and finds a mouse nest, damaged wiring, and a faulty sensor. A mouse nest has now cost you hourly fees, parts, and delayed work. In a worse scenario, the damage to the wire coating could be minor and just cause heat to emit from the wires, then short circuit, spark, and catch on fire, melting your wiring harness. The damage can be frustrating, dangerous, and expensive to repair.

Traps and rodenticides are not very effective at controlling rodents on the farm. A barn cat is a helpful

continued

Little Mouse, Big Problems!

Continued from page 4



The ceiling of a cab is a common nesting place.

Photo: Keegan Gelley

teammate, but the most effective control for rodents is preventing entry into storage spaces. It may seem impossible to seal every crack but do the best you can. Mice can squeeze through areas that are a quarter inch squared and rats through a half inch squared. Adding hardware cloth to ventilation spaces can help prevent entry. Keep vegetation around storage buildings trimmed down to reduce hidden entries and passage corridors.

Rodent damage can also be an issue in frequently used machinery during the winter. Mice can scurry away

while the equipment is running and return after it is parked again to bask in the radiant warmth after you do chores. Both cabled and open station equipment can harbor rodents.

Remove any food or loose fabric material from your tractor cab to deter feeding and nest creation. Occasionally inspect your tractor throughout the winter to watch for nesting. Even if the cab or other compartments appear sealed there may be alternative entry points, such as the wheel wells or the fire-wall, where they can enter and make a cozy nest.

My spouse is an ag mechanic and he frequently shares stories from his day that involve rodent damage, electrical failure, and even damage to cabin air filters. The photos are examples of rodent nests in tractors that caused electrical system failures. One from a tractor with a cab and the other without. A little mouse can cause big problems and go undetected by even the most experienced tractor operators.



Inspect your equipment before and throughout winter storage as well as before use in the spring to scout for rodent damage in hidden spaces. Don't forget to check your filters, batteries, and tires for replacement or repair at the same time. Consider scheduling maintenance appointments in the off season for swift return before the equipment is needed again in full force.

Equipment doesn't need a cab to become a nesting place for mice. Photo: Keegan Gelley

What Mama Teaches -Mark Kepler Ag/NR Educator



Picture from South Dakota ranch where cattle are adapted to a variety of non-Indiana plants

As I walk through the pasture, familiar plants are all around, crested wheat grass, lead plant, buck brush and sage. No, I am not in Northern Indiana, but on the prairies of my wife's family ranch in South Dakota where I have visited at least yearly for the past 39 years. There the cattle graze on totally different plants than what we find here. Just like the plants growing there represent species that can handle the rugged and cold environment, the cattle have adapted to know which of these plants to eat and which ones not to consume. How do they know? Because momma told them.

It is interesting to watch the learning environment of a young animal. Within the first week of life, new born goats are watching what their moms are eating and start to mimic them. First, it is the hay and soon they notice how eagerly mom goes for the grain, so they are soon eating out of the same pan, just like momma.

Just like we praise children when the day comes that they can wear big boy pants. Livestock are anxious to mimic their mom. A study in the 90's demonstrated how a mother could

influence her offspring to eat more of a low-quality food. Researchers exposed goat kids to a southwestern plant called blackbrush. One group was with their mothers and another group without. When the kids were 4 and 13 months old they were given the plant again. The kids that ate it with their mothers when young consumed about twice as much of the poor-quality shrub, compared to the control group. The group that had been exposed to blackbrush with mother continued to eat more of the shrub even as increasing levels of nutritious alfalfa pellets were offered alongside blackbrush. Momma never taught them to eat alfalfa.

A local beef producer purchased a bull from Texas and it grew poorly on the Indiana alfalfa orchardgrass pasture it was brought to graze. Our lush forages are not what they were raised on in Texas.

I have a University of Arizona publication that speaks of an experiment done with 4 groups of goats that had been reared in 4 different types of forages. "Then they were placed together in a diverse pasture comprised of about 100 plant species. Animals from each group still continued to prefer the forages on which they were originally raised. They were then tracked for the next four years and diets gradually converged across the four goat groups. Each successive generation of goats still preferred a few key plant species that could be traced back to the original goats grazing that the first year of the study."

The animal that does not have an opportunity to learn from mom are dairy calves. I have never seen data, but I suspect, they have more of a tendency to potentially eat a plant they should not. One that might be toxic.

Once a plant makes an animal sick they are more likely to remember it and stay away. I just had a goat sick for 4 days with diarrhea when she ate too much grain. She is now back to eating some grain, but very little. However, it just seems like in the world of grain, their memory is short. Everyone is greedily trying to get all they can and they fall back into the habit of being part of the aggressive crowd. Humans talk about crowd psychology where people will do something in group that you would not alone. Goats are a great study in herd behavior, you can watch them fighting off one animal, all while others are busily taking their grain. It goes back to the concept that animals can only process one thought at a time. They see an immediate threat but don't comprehend the long-term consequences.

Humans need to know the long-term consequences. That is why the old term, animal husbandry, should still be part of our thinking as a livestock owner. It is more of a holistic concept. Any discussion of holistic agriculture should start with the phrase, "In the beginning." To know where we want to go, we have to see from whence things have come. It would be nice to know what they were eating while they were there.

Yellow Foxtail– Mark Kepler Ag/NR Educator

Setaria pumila, now there's a Latin name for a plant that can just roll off your tongue. It is pronounced set-TARE-ee-uh POO-mil-uh. I think if we all practiced it we could sound very sophisticated or we could just remember it as yellow foxtail, something our animals tongues won't touch.

There are three foxtails seen in our area fields. They all related and in the family *Setaria* and also include giant foxtail and green foxtail. As I look out across my pasture field, the only one I see is the yellow species.

Livestock do not like the taste of yellow foxtail and in the month of September those yellow seed heads will be high above the grazed or mowed forage. Actively growing foxtail plants will regenerate seed heads within about two weeks of mowing.

Besides its taste, the plant is also not good for livestock consumption. There are no poisons but, the seed head is composed of numerous, tightly packed spikelets. Extending from under each spikelet is a tuft of 5 or more fine, wiry bristles that gives it a fuzzy-surface resembling the tail of a fox. The seeds have sharp awns that have tiny barbs. These bristles easily penetrate flesh, are kept there by the barbs, and can become embedded in the tongue and gums of livestock. Because animals selectively graze around yellow foxtail, this becomes more of a problem in hay.

Giant foxtail is tastier and was ranked in a test just slightly less palatable than oats. But you still may have an issue with it once it has formed a seed head.

Green foxtail does not thrive in fields that are not tilled often, and does not flourish in dense crop areas, this weed prefers the outskirts of cultivated fields.

I refer to yellow foxtail as an indicator plant. It tells me the current stand is not thick enough. In the picture that accompanies this article, I did not put in any orchardgrass with the red clover and chicory seeding. I lost most of the chicory during the winter and the red clover has gaps where the yellow foxtail is thriving. I have an alfalfa-orchardgrass hay field we planted in the late summer of 2019 that also has yellow foxtail patches. It just has not got established well enough to shove the foxtail out of the way.

Another grass that is not popular with my cattle and goats is goosegrass with the Latin name *Eleusine indica*. It is an annual grass that comes up in the well-trodden areas. It looks like the cattle have plenty of grass, but they have other ideas of what a good meal is. When cattle graze this low growing, spread out plant with white leaves near the base of its rosette, it may be pulled out of the soil by the roots if the ground is damp enough. When its young, it must be better tasting but old uneaten plants that have their goose foot looking seed heads are plentiful in my feed lot areas.

Of course, right next to the goose grass will be that yellow foxtail. *Setaria pumila* may roll off the tongue, but not off my livestock's tongues.

