PURDUE UNIVERSITY | Extension - Fulton County

August 13, 2020

AGLINE

1009 W. 3rd Street | Rochester, IN 46975 | 574-223-3397 | mkepler@purdue.edu | https://extension.purdue.edu/Fulton/pages/default.aspx

Virtual Learning Opportunities

- **Pinney Purdue Field Day** is going to be offered virtually this year. Due to the large crowds we have at this field day, Purdue Administration felt that social distancing and wearing a mask for an extended period of time was not practical.

  You can receive credit for participating in *Private Applicator Training, earn CCH's for commercial applicators, and certification hours for Certified Crop Advisor* by participating in this two hour program. It will be held on August 19 from 9 am to 11 am Central Time or 10 am to Noon EST.

  There is a fee for PARP and CCH of $15 to cover the cost of sign-up, which will verify your participation. This is mandatory for you to receive the certification credit. A flyer with registration information is found on page 7.

- A **Virtual Agronomy Series**,

  WEST LAFAYETTE, Ind. – Purdue Extension will offer a free webinar series on the latest topics in the fast changing world of agronomy throughout the month of August. Applicators license holders wanting to receive credits will be charged $15 for each program in which they intend to receive credit.

  The schedule is as follows:

  August 18th 7:00 – 8:00 PM Cover Crops with Joe Rorick
  Credits Available: Category 1, RT, & CEU

  August 20th 7:00 – 8:00 PM Late Season Corn & Soybean Management with Dr. Bob Nielson and Shaun Casteel
  Credits Available: Category 1, RT, & CEU

Note: for Private applicators the August 27 Agronomy Series session is the one that is offering PARP credits.

August 25th 7:00 – 8:00 PM Disease Management/ID with Dr. Darcy Telenko
Credits Available: Category 1, RT, & CEU

August 27th 7:00 – 9:00 PM Seed Coating with Christian Krupke
Credits Available: PARP, Category 1 & 4, & CEU

Register for this program online by visiting: https://bit.ly/agronomyseries.
For questions about this contact **Mark Kepler** at the **Fulton** Extension Office at **574-223-3397**

Fed Cattle Prices and Big Supplies

– David P. Anderson, Professor and Extension Economist, Texas A&M AgriLife Extension Service

Cash fed cattle prices have been slowly increasing over the last couple of weeks even as they continue to be under pressure by abundant supplies of cattle and beef. The five market fed cattle weekly average price was $97. But, by the end the week fed cattle prices in some markets hit $100 per cwt. Both the weekly average and July 31st's trade were well below prices a year that were averaging $113 per cwt.

Large numbers of cattle on feed longer than 120 and 150 days certainly indicate the continuing backlog of fed cattle. The estimated July 1 number of cattle on feed more than 120 days was 4.86 million head, down from June's 5.17 million head. But, it was well above July 2019's 4.01 million head. The data indicated about 3.2 million head on feed longer than 150 days, compared to 2.28 million head on July 1, 2019. So, there is a long way to go working off the backlog.

On the cattle slaughter side of the ledger, fed steer and heifer slaughter is almost equal to a year ago. Accounting for Saturdays and the July 4th holiday in daily slaughter indicates that daily average steer and heifer slaughter was about 700 head fewer per day in July than in 2019. Fed cattle slaughter in June and July combined was 99.9 percent of a year ago. Total cattle slaughter, however, was ahead of a year ago due to increased cow slaughter. The combination of fed cattle slaughter, heavier weights, and cow slaughter above a year ago has pushed beef production over the last 8 weeks to exceed the same weeks last year.

On the bright side, it appears that retailers are making to push for Labor Day beef featuring. Beef orders surged with 2,043 loads for delivery, second only to June 2011. Big beef featuring will be welcome as Labor Day is the last big summer holiday to move supplies. Slowly working off the backlog and moving more beef into retail is slowly pulling cattle prices higher. The weekly Choice beef cutout hit it's low for the year, so far, at $201.24 per cwt for the week ending July 18th. Since then it has clawed back to $202.34 per cwt. But, as with fed cattle, large beef supplies are keeping the pressure on the wholesale market.

In coming weeks watch for progress on the fed cattle slaughter front, more featuring for Labor Day, and increasing beef exports as prices decline.

All of these should act to boost fed cattle prices going into late summer.

Wild Cherry

Mark Kepler Ag/NR Educator

With the winds of this week I get the question about wild cherry leaves and their toxicity. Below is some Michigan State information:

"The leaves of wild black cherry trees, which are a very common fencerow and woodlot species, can cause a lethal poisoning risk if grazing animals consume wilted leaves. The toxic component in the leaves is prussic acid, a hydrogen cyanide toxin that is only formed when glycosides in the leaves are combined with hydrolytic enzymes. Under normal circumstances, the two components are stored in separate tissues, but can become poisonous in storm-damaged wilted cherry leaves.

With tornadoes, it is possible for branches to be carried quite some distance. We would encourage producers to check branches and trees down in their pastures to make sure that wild cherry is not in areas that livestock can get access to.

As little as 1.2 to 4.8 pounds of wilted black cherry leaves could constitute a lethal dose for a 1,200 pound dairy cow. To protect grazing livestock, limbs with wilted leaves should be removed from pasture areas. They recommend the animals be removed from the pastures until the damaged black cherry branches have been removed or the leaves become dried up and turn completely brown."

A note from Mark: I have to watch those down branches that are still hanging on. They are unpredictable and after the livestock removed, need to cut off right away so they can dry.

Purdue Farmland Value and Cash Rents Survey

WEST LAFAYETTE, Ind. – The 2020 **Purdue Farmland Value and Cash Rents Survey** suggests that farmland prices across Indiana improved since the June 2019 survey; however, many of those gains occurred between June and December 2019. Since then farmland prices have declined modestly.

The strongest year-to-year statewide increase was for poor quality land, which was up 6.3%. Top-quality land was up 4.5%, and average-quality land was up 3.2%. Between June and December 2019, top-, average-, and poor-quality farmland values increased by 5.5%, 5.0% and 8.7%, respectively; yet, between December 2019 and June 2020, top-, average-, and poor-quality farmland values posted modest declines of 1%, 1.7%, and 2.2%.

Todd H. Kuethe, Purdue associate professor and the Schrader Endowed Chair in Farmland Economics, who authored the survey, said that many of the survey's respondents emphasized the uncertainty related to the current COVID-19 pandemic.

"Given the disruptions across the food value chain and deep economic uncertainty, it is difficult to posit what the next year has in store for Indiana farmland market," he said. "The COVID-19 pandemic is a global phenomenon that will likely continue to disrupt trade patterns and income flows around the world. Everyone is hoping for a quick economic recovery, but the degree to which COVID-19 will impact land values is yet to be seen."

Statewide cash rental rates also increased across all land quality classes in 2020. The largest increase was in low-quality land, which increased by 5.4%, average-quality increased 4.8%, and top-quality land increased 4%.

The Purdue Farmland Value and Cash Rent Survey is conducted each June by Purdue's Department of Agricultural Economics and published in the Purdue Agricultural Economics Report. The survey is produced through the cooperation of numerous professionals knowledgeable about Indiana's farmland market. These professionals provided an estimate of the market value for bare-poor-, average-, and top-quality farmland from December 2019 through June 2020, and a forecast value for December 2020.

Virtual PARP Opportunity-August 20, 2020
Pesticide Applicator News

Because of the few in person meetings it is getting difficult to get Pesticide License credits. All of Purdue's statewide field days this year will not be in person but virtual on the computer. There will be several of these throughout the state but the one that I have information on now is the Northeast Purdue Agricultural Center (NEPAC) near Columbia City, on August 20. Register prior to August 20. This is the link for their program and I have some of the information below. https://extension.purdue.edu/Whitley/article/37423

They will have pesticide (PARP) credits available but because we have to pay a third party for registration the cost is $15.

This is that meeting agenda:

8:00 – 8:30 Participants and speakers logon (see above link for instructions)

8:30 – 8:35 Introductory remarks/instructions -John Woodmansee, Extension Educator, Whitley Co.

8:35 – 9:00 Successful Transitions: Considerations in Transitioning Acreage to Certified Organic Grain Production-Michael O'Donnell, Extension Educator, Organic and Diversified Agriculture

9:00 – 9:05 Sponsor remarks

9:05 – 9:30 Cover Crops and Nitrogen Management for Optimum Corn Production -Shalamar Armstrong, Purdue Agronomy

9:30-9:35 Sponsor remarks

9:35 – 10:00 Weed Control Update-William Johnson, Purdue Extension weed specialist

10:00 – 10:05 Sponsor remarks

10:05 – 10:30 Soybean Update-Shaun Casteel, Agronomy Dept., Purdue University

10:30 – 10:45 Driftwatch-Steve Engleking and Ann Kline, Extension Educators, LaGrange and Noble Counties (respectively)

10:45-10:55 Unmanned Aerial Vehicles update- Purdue Quad Squad

10:55 – 11:00 NEPAC Staff Comments & Wrap-up-Stephen Boyer, NEPAC Farm, Ed Farris, Extension Educator, Huntington Co.

Long Lasting Weeds Mark Kepler Ag/NR Educator

One of the headlines last week was, "Microbes revived after 100 million years." A team, mostly Japanese, went to a South Pacific Ocean location around 3 miles deep and drilled down 225 feet into the sediment and brought up bacteria samples. They were able to grow the bacteria in those samples that was as old as 101.5 million years.

I thought it was amazing how long some weed seeds could persist in the environment but they don't hold a candle to bacteria. The weed lambsquarter will take over 70 years for a 99% reduction in seed viability. Those same numbers for velvet leaf and cocklebur are 56 and 37 years. For those of you lawn lovers, crabgrass seed is good for up to 8 years with a good chance for germinating at around 25-75 percent, even up to 90 percent.

Inflorescences of common lambsquarters, *Chenopodium album.* Photo by Jack Kelly Clark.

Archeologists who excavated a 14th century English monastery that had been closed by Henry VIII in 1539 found seeds of mullein that were still viable. One single mullein plant can produce 200,000 seeds.

According to an article in the National Geographic, "A Russian team discovered a seed cache of Silene stenophylla, a flowering plant native to Siberia, that had been buried by an Ice Age squirrel near the banks of the Kolyma River. Radiocarbon dating confirmed that the seeds were 32,000 years old." They were able to germinate the seeds found in the permafrost.

With our lack of permafrost here, our seed survival would not rival that world record. It just seems like records are just made to be broken and some day they will find a seed that lasted longer.

According to Ohio State University, "Undisturbed weed seeds tend to persist longer than seeds subjected to periodic tillage. Weed seeds in deeply worked soil tend to last longer than seeds in shallowly worked soil. Seeds deep in the soil are "stored" below the germination zone." Sounds like the same is true for the under-ocean bacteria.

That university also stated, "Grass seeds tend to be less persistent than broadleaf weed seeds.

The number of surviving seeds of most weed species declines rapidly the first year. But thereafter the rate of weed seed decline slows. Some seeds can persist for decades.

As many as 130 million seeds per plow acre were found in a Minnesota study." An Iowa study found up to 600 million per acre.

Allowing the weeds to go to seed just makes the matter worse by increasing the seed bank. Some people do not see it that way. They have a defeatist attitude and say if you have hundreds of millions, what's a few more hundred thousand. I just think that is a whole lot more weeds to pull.

Tales From The Crib

Mark Kepler, CED Ag/NR

As a child we stored ear corn in an old-fashioned rectangular crib. I would shovel the corn from a flatbed wagon and throw it between the narrow space between the studs at the top of the crib. Just like the decreasing numbers of round barns and old bank barns, it is getting harder to find old long narrow rectangular corn cribs. At one time we had three and today we still have one.

Other than the general structure the one thing they had in common was their ability to attract mice. By the end of the summer after storage, when most of the corn had been removed, mice numbers in the small amount of corn left would get fairy high. I remember one year we emptied the crib, and the number of mice counted was around 80.

Mice are prolific breeders, producing 6-10 litters continuously throughout the year. The greatest economic loss from mice is not due to how much they eat, but what they damage or contaminate. One mouse consumes about eight pounds of feed per year and can waste twice that much. That would figure each mouse would cost a livestock producer up to about $5 in feed.

Then there is the damage of gnawing on housing, equipment and nest building. It is not uncommon for a farm combine to be started up after 10 months of inactivity and watch mice come running out. Sometimes the combine starting does not occur because of chewed wires. In addition, mice are known carriers of at least 35 diseases, such as plague, leptospirosis, swine dysentery and salmonella.

They may go unnoticed for the most part, because mice are active mainly at night, and are seldom seen during the day. For every rodent seen, it is estimated there are likely 20 to 50 that are unseen. I saw a video of a barn that was filmed at night on an infrared camera. The red eyes of the mice and rats were everywhere.

Mice are able to squeeze through extremely small openings narrower than the diameter of a dime.

Controlling mice on a farm should include traps and poison baits. Today's non-anticoagulant baits have the active ingredients of bromethalin and cholecalciferol or vitamin D^3. Bromethalin is considered safe, and a minor threat of secondary poisoning, because it causes the rodent to stop feeding days before it dies, so that most of the poison has been excreted prior to death and possible ingestion by a predator or pet. Cholecalciferol is a calcium releaser that causes too much calcium to be released into the blood, disrupting body functions. Cholecalciferol kills anticoagulant (older bait products) resistant rodents and there is no problem of secondary poisoning of pets or wildlife that eat poisoned rodents. It seems as though rodents have a susceptibility to high doses of vitamin D. Maybe living their lives in the shadows, they have a developed a lower need of the sunshine vitamin.

At one time we raised rabbits next to that remaining corn crib. The cages that housed the rabbits had wire spaced adequately apart for rabbits but easily passed through by mice. So, I placed a mouse snap trap baited with peanut butter in an empty cage. The next morning, I came in to find only the head of a mouse in the trap. It seems that mice are cannibalistic and a dead one is easy prey. Grandpa always said that a cat eats a mouse head first because he saves the tail for a tooth pick. Not so, when mice feed upon themselves.


Virtual Pinney Purdue Field Day
Speakers:
Lyndon Kelley - Irrigation
Darcy Talenko - Crop Disease
Christian Krupke - Insect Update
Bill Johnson - 2020 Weed Control
Registration:
https://tinyurl.com/Pinney-2020
PARP/CCH:
https://www.cvent.com/d/17q70b
($15 Each)
August 19, 2020
9-11am (CST)