

# AGLINE

PURDUE UNIVERSITY COOPERATIVE EXTENSION SERVICE, Fulton County  
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## 2023 FULTON COUNTY FARM WINTER SCHOOL

The Fulton County Farm Winter School classes have been developed for this year and enclosed on page 3 is the schedule. **Please note of two changes.** *The first, all classes will be starting at 7 pm this year and the other is no class on Wednesday night January 18th, 2023.*

I seem to have a conflict that day with the Fort Wayne Farm Show, so we are going to add a week at the end. Speaking of the farm show, I have also added a flyer for some of the educational presentations organized by Purdue University, Extension for that event. (flyer on page 4)

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### THE BUR OAK

### OR *QUERCUS MACROCARPA*

Purdue has a series of short videos on the many tree species of Indiana. One of the newest is on Burr Oak. I have these on my farm and I enjoy seeing them in woods, yards and parks in our community.

Here is some information on them located on page 2.



## The Bur Oak or *Quercus macrocarpa*

The bur oak has rounded lobes on the end of the leaves, which have deep sinuses and are very broad across the top. Leaves are typically dark green that turn yellow or brown in the fall.

The bark on bur oak is medium to dark gray in color with heavy ridges and plates, often so thick that it is often fire resistant and resistant to damage from burning. Bur oak may have terminal buds that include small hairs and resemble bear claws.

The fruit of the bur oak is an acorn with a large cap that features a hairy fringe forming a burr along the outside edge. The acorns vary in size, but average one inch in length, and the cap covers half to two thirds of the acorn.

Bur oaks, which grow to 70-80 feet tall and up to five feet wide, are common in both bottomlands and prairie regions, and can tolerate many different sites. Bur oaks can be found in nearly any county and any habitat type in Indiana. The natural range of bur oak is the eastern Great Plains from the Dakotas to Ohio to the eastern Appalachians, except through the southeastern United States. The range also extends into southern Canada.

Lumber from the white oak group, which includes bur oak, is among the heaviest next to hickory, weighing in at 45 pounds per cubic foot. It is very resistant to decay and is one of the best woods for steam bending. Bur oak, however, is somewhat weaker than other species in the white oak group.

Wood from a bur oak is usually a darker brown in color than white oak and the wood grain sometimes has a scalloped appearance.

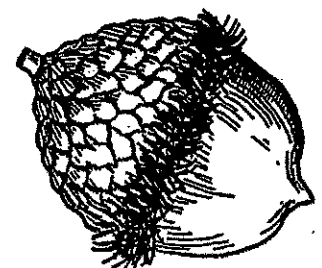
Lumber from the white oak group has been used for a variety of purposes including log cabins, ships, wagon wheels and furniture. White oak also is preferred for indoor decorative applications ranging from furniture, especially in churches, to cabinets, interior trim, millwork and hardwood flooring and veneers. It also may be used for barrel making.

Its density and durability make white oak a favorite for industrial applications such as railroad ties, mine timbers, sill plates, fence posts and boards, pallets, and blocking, as well as industrial, agricultural and truck flooring.

**The Morton Arboretum** warns to prune oaks in the dormant season to avoid attracting beetles that may carry oak wilt. Bur oak can be affected by pests such as leaf galls and kermes scale as well as anthracnose, bacterial leaf scorch and powdery mildew. Bur oak blight also is a potential issue.

Here is a video link:

<https://youtu.be/mdFRpZdvFps>



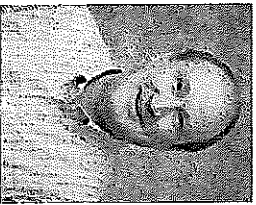
# 2023 Fulton County Farm Winter School

This series of meetings is jointly sponsored by the Purdue University Cooperative Extension Service and the Rochester High School Vocational Agriculture Department. All meetings will be held on **Wednesday evenings at 7:00 p.m.** Please note the session dates. Most meetings are in the Rochester High School Vo-Ag Room. Refreshments will be available courtesy of several local banks.

**NEW CLASS TIMES!!**  
Classes start at 7:00 p.m.

## Session 1 January 4, 2023

**AGRICULTURE ECONOMIC OUTLOOK**  
Dr. Michael Langemeier, Purdue Agriculture Economist and the Purdue Center for Commercial Agriculture



Dr. Langemeier will discuss farm commodity prices, cash rents and land value. He will provide updates on livestock prices, interest rates and other issues affecting farm inputs and prices.

No class on **Wednesday, January 18th, 2023**

## Session 3 January 25, 2023

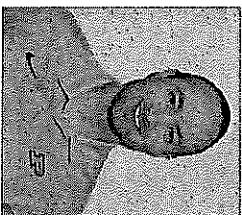
**DEALING WITH THE WEATHER**  
Austin Pearson, Meteorologist

Austin Pearson is a meteorologist with Midwestern Regional Climate Center based at Purdue University. He will give a general weather and climate discussion. He will also discuss new technologies available to farmers.



## Session 2 January 11, 2023

**INDIANA CORN SEASON OVERVIEW AND RESEARCH UPDATE**  
Dr. Daniel Quinn, Purdue Extension Corn Specialist



Dr. Quinn will talk about the research that Purdue is doing in the area of corn management. His research involves yield physiology, agronomic management intensities, precision technologies and nutrient management. A portion of this class will include information about Private Applicator Record Keeping presented by Mark Kepler. The program is certified as a PAKP class for those needing a private applicator pesticide credit. *The cost is \$10 for those needing the pesticide credit.* Please bring your pesticide permit for class registration. This program will be held in the

**ROCHESTER HIGH SCHOOL AUDITORIUM.**

## Session 4 February 1, 2023

**UNDERSTANDING YOUR FARM INSURANCE POLICY AND COVERAGE**  
Courtney Schmidt, Purdue Extension Educator — ANR



Courtney Schmidt, Purdue Extension Educator of Agriculture and Natural Resources was a former insurance agent. She will talk about current coverages and possible ones to consider in a farm owner's policy and other policy types.

*If you have a disability that requires special assistance for your participation in the meeting, please contact:*  
Mark Kepler, Purdue Extension Service at 574-223-3397

# 2023 FORT WAYNE FARM SHOW SCHEDULE

## January 17, 2023



Appleseed Room A  
 Moderator - Ann Kline  
 Purdue Extension - Noble County

## January 18, 2023

Appleseed Room A  
 Moderator - Bill Horan  
 Purdue Extension - Wells County

## January 19, 2023

Appleseed Room A  
 Moderator - Elysia Rodgers  
 Purdue Extension - DeKalb County

<p><b>10:00 AM</b>  <b>GRAIN MARKET OUTLOOK</b>                  Jon Cavanaugh  <i>Market Analyst</i>                  David Kohli  <i>Adjunct Professor</i>                  Ivy Tech                  Ryan Martin  <i>Farm Origination Specialist,</i>                  Louis Dreyfus Co.                  Rob Winters  <i>Farm Director</i>                  News/Talk—1190 WOWO Radio</p>	<p><b>10:00 A.M.</b>  <b>MANAGE FARM FINANCES FOR FREE IN 2023</b>                  Dr. Jim Mintert  <i>Director,</i>                  Center for Commercial Agriculture,                  Purdue University</p>	<p><b>10:00 A.M.</b>  <b>LOOKING BEYOND THE BASICS OF ARC/PLC</b>                  Jason Williamson,  <i>COO, Commercial Ines Manager</i>                  Williamson Insurance</p>
<p><b>11:30 PM</b>  <b>5 WAYS TO LOSE THE FAMILY FARM</b>                  Dan Gordon  <i>Owner/Attorney,</i>                  Gordon Legal</p>	<p><b>11:30 A.M.</b>  <b>FARM BILL &amp; FEDERAL POLICIES</b>                  *LUNCHEON—Appleseed Room B*                  Randy Krohn  <i>President, Indiana Farm Bureau,</i>  <i>(Senator Braun and Representative Baird Invited)</i>                  Meals limited to first 150 people</p>	<p><b>11:00 A.M.</b>  <b>FARM POND FISH &amp; WEED MANAGEMENT</b>                  Bill Horan  <i>Ag &amp; Natural Resources Educator</i>                  Purdue Extension, Wells County</p>
<p><b>2:00-4:00 PM</b>  <b>PARP SESSION</b>  <b>DISTILLING DOWN DIGITAL AGRICULTURE</b>                  John Scott  <i>Digital Agriculture Extension Specialist,</i>                  Purdue University                  James Wolff  <i>Ag &amp; Natural Resources Educator</i>                  Purdue Extension-DeKalb County  <b>PARP, Commercial &amp; CCA Credits available</b></p>	<p><b>2:00 P.M.</b>  <b>FERTILIZER &amp; COMMODITY OUTLOOK</b>                  Josh Vollmar  <i>Director, Commodities &amp; Risk</i>                  The Andersons, Inc.</p> <p><b>ALTERNATIVE FERTILIZERS</b>                  Thersa Dirksen  <i>Ag &amp; Natural Resources Director</i>                  Mercer County, OH</p> <p><b>MAXIMIZING YOUR FERTILIZER INVESTMENT</b>                  Ben Wicker  <i>Director</i></p>	<p><b>12:30 P.M.</b>  <b>USING DRONES ON FARMS</b>                  Purdue "Quad Squad"                  Purdue University Extension,                  Drone Team</p>
<p><b>Educational Seminars Provided By:</b></p> <p>Northeastern Indiana                  Soil &amp; Water</p>  <p>  <b>PURDUE UNIVERSITY.</b>                  Extension</p>		

## Fort Wayne Farm Show Hours:

January 17—9am - 5pm | January 18—9am - 8pm | January 19—9am - 4pm

# Is it Ready for Harvest?

Written by Mark Kepler,  
Purdue Extension Educator, Fulton County—ANR

Black layer. It's a term all farmers know and it has nothing to do with the color of a dyed blond person's hair near the scalp. Black layer is the stage in corn development at which kernel growth ceases and maximum kernel dry weight is achieved. It is a visible sign that the corn has matured and will grow no more. This black layer can be found by removing a kernel from the cob and peeling the skin back at the root where the kernel was attached to the cob.

It does not mean it's time to harvest as the moisture content will dictate when that actual date will occur. Farmers generally start harvesting corn when the moisture levels get down to 22-25 percent. Then it has to be dried even further to around 15% or less for mold less storage.

Black layer is a nice visible sign that harvest can or will soon begin. Not all plants give you such good signals. How does the apple tell you it's time to pick? No easy answer here.

Depending on the apple variety they can be picked from August to early November. Some varieties are the best harvest when the snow flies. So, knowing the varieties will help you narrow down a picking date. Even then, summer apples tend to ripen over several weeks. If you know your variety then the color may help, but in general, this is unreliable.

Ground color is the color of the skin in the stem indentation. As apples mature, the ground color changes from a bright green to a lighter green and then to yellow. This change is a good indicator of maturity on cultivars such as McIntosh but is useless on solid red varieties.

Immature apples are hard. Mature apples should be firm and crisp, but not hard. By applying some pressure to the fruit with your thumb, you can feel a change in firmness over a period of weeks. Apple producers have a knack to know about their trees. Experience is the best teacher.

How about another tough one, watermelon? A watermelon's appearance and feel are better gauges than the time-honored practice of tapping on the outer skin. A watermelon that is ripe will be faded on the top. If the watermelon has stripes, look at the area between the stripes. This area should be a light green.

Turn the watermelon over and look at the place where the fruit stood on the ground. If the watermelon is ripe, the 'belly spot' will be white or yellow. If you can see the stripes through the belly spot, it may not be ripe. If you do want to thump, an unripe watermelon will 'ping' when thumped. An overripe watermelon will 'thud.' The one you want to buy is somewhere in between.

Some plants are easy to tell when they are ripe. If a tomato is red, then it is ready to go. Then I ran into an old heirloom variety that is green when ripe called Green Zebra. It turns an amber gold with dark green zebra-like stripes and is green inside.

Why can't some things just be easy?

## Plants Have a Story to Tell

Written by Mark Kepler  
Purdue Extension Educator, Fulton County—ANR

Pssst! came the sound from the soybean field I was in. I knew I was caught. With nobody around it could only be another plant story. You see every plant has a story to tell. Some, like the old maple tree in my yard, may tell the story of being planted by my great grandfather. Over the years it grew strong and tall and now old age has crept up on it as it slowly starts to deteriorate. A tale of nostalgia.

Looking over a few rows, there stood a maretail plant reaching about 3 feet tall. "I have had a tough life," it said, "but I persevered." "My mother cast me into this field last year like the other 200,000 seeds she created to fend for myself. Some of them started growing last fall and some this spring."

"Look around," he said, "I am only one of a few to survive." Rather than a tale of pity for his siblings, it was more of a bragging. "They couldn't handle the weather, competition, and herbicides." I know that those maretail germinating in the fall may succumb to some tough cold weather. Those that germinate late, after the soybeans are well established, cannot compete for the sunlight and fail to live. "They sprayed some nasty-tasting herbicides on me, but I just shrugged them off. The others couldn't handle it and bit the dust." His arrogance permeated the air.

Herbicides have been a major contributor to increased crop yields, preventing weeds from stealing light, nutrients, and water away from the crop. But certain weeds have developed quick resistance to these cropping aids. Farmers have been rotating herbicides and companies have developed new approaches to their weed control arsenal. Most maretail populations are resistant to both glyphosate (Roundup) and another group of commonly used chemicals. This is the one weed species that lives through homeowners spraying glyphosate on a rock driveway.

Back when my great grandfather planted the maple tree this weed species was no problem as the horse-drawn tillage equipment would rip it from the ground. Today, as we try to do more conservation-minded farming this plant is one that has moved to the upper echelon of tough-to-control weeds.

"I made it through and I can only hope the seeds I am developing will be resistant to other herbicides. I may possess special genes." Lamented the weed. As I listen to this "all about me" talkative plant, my thoughts go back to the days of my great grandfather that I never knew. I was standing in a field he used to walk and know well listening to a weed whose ancestors blew in after his time.

Just like my lineage, I reach down and pulled the weed out by its roots, walked up to the old maple, and took some time in the quiet shade to lament about days gone by. That was the story I wanted to hear.

## Pesticide license exam opportunities for Plain Clients.

Sharing immediate news from the Office of the Indiana State Chemist. Two exam opportunities for Plain Clients, who cannot take the Pesticide Core exam via computer. The exam will be administered by paper exam booklet and scantron.

To overcome religious-based objections to computer-based exams, the Office of the Indiana State Chemist (OISC) will be offering paper-and-pencil exams at Purdue, three times a year. The intent of these exam offerings is to accommodate "Plain People", who have religious objections to using computers. Please help us get this information to those individuals that need it.

The winter exam dates are as follows: **January 17 and February 17, 2023, at 1PM eastern time.** The CORE-only exam will be administered at the William H. Daniel Turfgrass Research and Diagnostic Center.

It is located at **1340 Cherry Ln, West Lafayette, IN 47907.** Preregistration is required at least 2 business days before the exam.

There is **no fee** to take the test. We are only offering the CORE exam for private applicators with religious objections.

To signup, please email Laura Fritz at [lfritz1@purdue.edu](mailto:lfritz1@purdue.edu) or call 765-494-6271.

Training materials can be purchased by emailing [edustore@purdue.edu](mailto:edustore@purdue.edu) or by calling 765-494-6795.

To take the exam, the examinee must meet the following criteria: 18 + years old, religious objection to computer-based testing, pre-registration, and presentation of a valid ID on the exam day. The I.D requirement can be met in three ways:

1-Valid Indiana I.D. card with photo

2-Valid Indiana photo exempt I.D. card

3-Birth certificate, social security card and piece of mail with name that matches the social security card and birth certificate.



**PURDUE**  
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## 2022-2023 Indiana Beef Cattle Association (IBCA) and Purdue Area 8 Beef Meeting

**WHEN:** Wednesday, January 18<sup>th</sup>, 2023 – 6:30 p.m.

**WHERE:** People's Winery 414 S 3<sup>rd</sup> St.- Logansport, IN

**WHY:** The meetings will feature great food and valuable information on a variety of beef topics. IBCA will provide an update on current policy and programs. Purdue Dept. of Animal Science will provide the educational presentation.

**HOW:** RSVP to the Cass County Extension office at 574-753-7750 by 01/13/2022

*The counties in this AREA are: Carroll, Cass, Clinton, Fulton, Grant, Howard, Miami, Tipton and Wabash.*

*Current IBCA Director: David Helms*

### **SPONSORS:**



# Livestock Manure

Written by Mark Kepler

Purdue Extension Educator, Fulton County—ANR

When I teach composting, I tell my audience one of the greatest composters is the cow. Here we send fiber through one end and it comes out the other end, very well broken down. That essentially is the mission of a compost pile. Invariably this leads to a discussion of animal manures as fertilizers. With the recent spike in fertilizer prices, manure have become much more valuable and are a sought-after fertilizer and not just an animal waste product.

I start the discussion of livestock manures with what has the animal been fed, specifically the protein level of the feed. Protein and nitrogen have a numerical relationship. Nitrogen times 6.25 equals protein level. When you feed an animal a high protein diet they have more nitrogen in their manure. For example, young poultry are usually fed grain diets with over 20% protein. This manure has little fiber and a lot of nitrogen. When you use it as a fertilizer you get the nitrogen benefit but very little organic matter or humus.

Hogs are fed lower protein diets than poultry, so their manure is usually lower in nitrogen. They too are fed little fiber. That is a general statement as young pigs will have higher protein diet than a laying hen.

Using beef cow manure that have been fed less than 12% protein will give you less nitrogen but more humus from these forage-based diets. Dairy cows receive higher protein diets and so there would be more nitrogen fertilizer value in their manure. Sheep and goats are generally fed higher protein than beef animals.

What about horse manure. The digestive tract of a horse and rabbit are different than cattle, sheep and goats. Horses are generally fed low protein, high fiber diets. Their digestive systems do a poor job of fiber digestion so the manure contains a lot of fiber. So much, in fact, that adding a lot of this manure to a garden will result in the nitrogen being used up to complete the process of decomposition. The fiber can even cause a heating reaction during this process that can hurt plants in the garden. Horse manure should be allowed to set in a pile and allowed to decompose for at least 6 months before being added to the garden.

In general, all manures would be best added to the garden in the fall to help prevent the spread of disease organism such as *E. coli*. Although we hear of these bacteria being associated with hamburger recalls, *E. coli* infections have been associated with raw milk, lettuce, untreated water, unpasteurized apple juice and cider, produce from manure-fertilized gardens, and radish and alfalfa sprouts.

According to Purdue's food safety specialist Scott Monroe, "The longer between manure application and harvest, the more time the manure has to break down. In healthy soil, human pathogens are poor competitors. The National Organic Program requires a 90 to 120-day interval between manure application and harvest. 90 days for above-ground crops and 120 days for crops that contact the ground."

Composting manure will reduce those day requirements but it has to be done right, not just left in a pile. Scott Monroe also says, "Current FDA research, which Purdue research in Southern Indiana would seem to corroborate, indicates that soil type plays a big role in manure dynamics also. If you've got a healthy soil teeming with competitive microbes, the risk of crop contamination will decrease much more quickly than if you are growing on a drouthy sand with minimal organic matter and a questionable pH."

There is no better way to improve soil than adding compost and other organic constituents.