Hello Coshocton County! It is hard to believe that we are already 2/3 of the way through the month of January. Every day brings us a few more minutes of daylight which means that it won’t be long before the furry groundhog makes his prediction on whether we will get an early spring or not.

Last week was full of virtual programs. I hope many of you are able to access these programs until we are able to return to in-person workshops. Make sure to check out OSU’s one stop shop for these programs at: https://agnr.osu.edu/programming.

Private pesticide and fertilizer certificate holders who need re-certified this year should be watching their mailboxes for options to complete re-certification. We have three options available for producers to choose from as we navigate the lingering pandemic. The letters were mailed today.

Stay safe and be well!

Sincerely,

David L. Marrison
Coshocton County OSU Extension ANR Educator
**Coshocton County Pesticide & Fertilizer Re-certification Update**

The Coshocton County Extension office is pleased to announce that details have been finalized for producers to obtain their pesticide and fertilizer re-certification credits. The coronavirus pandemic has altered how each of us are conducting our lives and it has impacted us at OSU Extension; especially as we try to meet the COVID-19 guidelines set forth by the university and the State of Ohio. Producers have the option to complete re-certification through an online self paced study, attend a Zoom webinar (live teaching) or an in-person session (following the appropriate health guidelines). Due to the coronavirus pandemic, the Ohio legislature has extended the re-certification deadline to July 1, 2021. Details about these programs are being mailed directly to applicators this week.

**Upcoming Agronomy Team Programs**

By: Amanda Douridas, Mary Griffith, Elizabeth Hawkins and Laura Lindsey

Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2021-02/upcoming-agronomy-team-programs

This week the Agronomy Team continues to offer virtual programming including the second session of a weekly series focusing on investing in soil health, and the first session of a series focusing on farming in weather extremes. Next week’s offerings include the final session of the 2021 Precision University and a continuation of the soil health series. Topic details and registration information are below:

- Jan. 21, 8:00-8:30am – What Can Soil Health Tests Tell You? Steve Culman. 0.5 NM CCA CEUs.
  Register: [www.go.osu.edu/soilhealth2021](http://www.go.osu.edu/soilhealth2021)
- Jan. 21, 9:00-10:30am – Disease Management Options for Today’s Weather, Pierce Paul and Aaron Wilson. 1.0 PM CCA CEUs.
  Register: [www.go.osu.edu/adapt](http://www.go.osu.edu/adapt)
- Jan. 26, 10:00-11:00am – Sprayer Technology to Improve Field Performance, Joe Luck. 1.0 PAg CCA CEUs.
  Register: [www.go.osu.edu/PrecisionU](http://www.go.osu.edu/PrecisionU)
- Jan. 28, 8:00-8:30am – Can Improving Soil Health Improve Yield? Jordon Wade. 0.5 CM CCA CEUs.
  Register: [www.go.osu.edu/soilhealth2021](http://www.go.osu.edu/soilhealth2021)

All programs will be recorded, and recordings will be available to view on our website and YouTube channel. CCA CEUs are only available to participants attending live sessions (we cannot give CCA credit for watching the recordings). To register and view details on programs coming up later in the month and into March, visit: [https://agcrops.osu.edu/events](http://https://agcrops.osu.edu/events).

The recordings of last week’s videos are available to view online here:

- [Gambling with Planting Decisions](http://www.go.osu.edu/soilhealth2021), Aaron Wilson and Bob Nielsen
- [Improving Fertilizer Efficiency with the Planter Pass](http://www.go.osu.edu/soilhealth2021), John Fulton and Matt Bennett
- [ARC/PLC for 2021](http://www.go.osu.edu/soilhealth2021), Ben Brown
- [Does it Pay to Improve Soil Health on Your Farm?](http://www.go.osu.edu/soilhealth2021) Nathan Brown, Les Seiler, Matt Falb
- [Management Considerations for Winter Malting Barley](http://www.go.osu.edu/soilhealth2021), Greg McGlinch
- [White Wheat](http://www.go.osu.edu/soilhealth2021), Dennis Pennington
- [Oats and Triticale for Forage](http://www.go.osu.edu/soilhealth2021), Al Gahler and Jason Hartschuh
Improved Soil Health Linked to Nitrogen Fertilizer Efficiency Across Corn Belt
By: Jordan Wade, Steve Culman, and Cassandra Brown
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2021-02/improved-soil-health-linked-nitrogen-fertilizer-efficiency-across

Most farmers value soil health in theory, but few studies have worked to place an actual agronomic value on soil health. A study published earlier this spring found that a 10% improvement in certain soil health measurements increased relative yields by an average of 5% across N fertilizer rates. In other words, good soil health means getting more bang for every buck spent on fertilizer.

Study leader, former Ohio State PhD student Dr. Jordon Wade, based these findings on analysis of corn nitrogen (N) rate trials throughout the Midwest. His findings were consistent across a variety of soils and climatic conditions across the Corn Belt (Fig 1).

Improving N use efficiency is linked to soil biology and the cycling of organic matter, both of which are important components of soil health. In response to increased attention on soil health, both commercial and university research labs have begun offering soil health testing services. These tests often focus on the biological activity of the soil, specifically targeting the portion of soil organic matter thought to be active during the growing season. However, there are few guidelines for applying test results to fertility recommendations.

What soil health tests should I use?
In this study, researchers used three different measurements of active organic matter: permanganate oxidizable carbon (POXC) soil protein, and respiration (Solvita). They also included total organic matter content, which is often included in a standard soil test.

The research team found that respiration test was much less useful in making N recommendations than the other three tests. Instead, respiration seemed to reflect inherent soil characteristics more than management-related changes. Based on this study, Wade recommends POXC and soil protein, as well as a standard organic matter soil test. Together, these 3 tests provide insight into how management is affecting your N efficiency.

How can I find and use these tests?
As with many emerging soil health tests, availability is limited. However, here in Ohio, the Soil Fertility Lab started offering these measurements through eFields in 2020 as part of on-farm research projects. You can find more information by contacting Steve Culman (info below) or your local OSU Extension County Educator.

At this time, interpretation of results is simplistic: if your POXC, soil protein, and organic matter levels are going up, you will have increasing N use efficiency. POXC values are generally quicker to respond than soil protein or organic matter, so you may need to wait at least one full rotation of corn and soybeans to see if you are headed in the right direction. In the future, the study authors hope to use these measurements to give more precise recommendations.

For reliable results, be sure to use consistent sampling techniques from one year to the next. Take your soil samples at a similar time of year and use the same lab for analysis. For more information on effective soil sampling, visit soilhealth.osu.edu.
Frost seeding is one of the least expensive ways to enhance the stand of legumes in your pastures. It is basically the process of broadcasting the legume seed onto the soil surface during the winter dormant months and letting nature do the rest of the work.

Frost seeding relies on the freezing-thawing action of the soil, which is honeycombing the soil surface with ice crystals. The soil surface expands and contracts, allowing the small seed to find a route into the ground. During warmer winters, you might not always get enough action, leaving the seed uncovered. The seed lying on the soil surface can be warmed enough by the sun to initiate germination, only to be killed by the next freeze. When the seed is protected by the soil it is not as likely to be impacted by the sun and is more likely to wait until the proper time to germinate.

In our area of Indiana, the ideal time is usually somewhere between Christmas and Valentine’s Day. And, if I really had my choice, I’d wait for a light snow on the ground and then do the sowing. The snow serves two good purposes. One, it helps “catch” the seed and transport it to the ground and two, it serves as a great marker for the tractor or ATV.

Competition is probably your next worst enemy for planting survival. Broadcast seeding or frost seeding into a heavy stand of grass usually results in less success. So, if you know you are going to be frost seeding legumes into a pasture, wait until after the forage has become dormant and then graze it down to about 3-4 inches to remove any excess growth. This will help the seed find its way to the soil surface and wait for that freezing action. Grazing closer to the soil surface also helps slow early spring growth of the grass so the legume seedling has a fighting chance.

That reminds me to mention, don’t hit those newly seeded fields with nitrogen in the spring either. All this does is promote the grass growth in the sward and reduce those new legume seedlings’ chances. They won’t have the root base or energy stored up to compete with established grass, especially with grass that has a boost of nitrogen!

What should you plant? Consider Clover
Clovers are probably the easiest legumes to frost-seed. The seed is small and slick and easily moves down through the residue/residual to the ground. If you already have some clover and are just enhancing what you have, then utilize improved varieties for the best results. If you don’t have any clover presently, then you should inoculate the seed with the appropriate rhizobium. The seed may germinate and thrive without it, but it will do so much better if it is present, especially if one of the goals for planting the legume is as a nitrogen source for the grass component of the stand

It is best to get a seeding recommendation and rates for the legumes from your local soil and water conservation district office or extension office. Some legumes do better with particular types of livestock over others, some do better depending on the type of soil and drainage, and there are some differences depending on management. Red clover for example is better suited for hay than most white clovers because it dries better. There is also a huge difference in seed size which highly influences the amount of seed that is needed. Most white clovers have over three times more seed per pound than red clovers. It is easy to seed too much...
white clover and seed size is part of the reason. That can be a problem because white clovers (Dutch whites, Ladinos, Alsike, etc.), can cause bloat issues when they dominate a stand.

You can buy clover seed coated too. Coated seed has a coating of clay material surrounding the seed which actually helps you to be able to sow very small seed more accurately. It does change the pounds of bulk seed you are planting. Most coating adds about 33-34% inert ingredients to the bag of seed. So if you are wanting to plant six pounds of red clover, you are actually going to have to increase the amount of bulk seed you plant per acre to about nine pounds per acre to get your planned six pound rate. Most legumes have good germination and purity rates normally, but that does vary some. The inert ingredient percentage needs to be accounted for with the purity. For example a lot with 98% germination and 97% purity with 33% inert (the coating). .98 x .97 x (1-.33% or .67) = .63 (or 63%) of the lot is live seed. So if the desired pure live seed rate is six pounds per acre, 6 / .63 = 9.5 pounds per acre. When it comes to something like a Ladino clover and you are wanting to seed only about a pound per acre in some cases, coated seed makes it a lot easier to do.

Coated seed can also be the carrier of the inoculant if needed and occasionally has other things included. If you really need the inoculant, the seed needs to be used the same year it was coated. Quite a bit of legume seed has a calcium carbonate coating which can create a slightly better environment pH wise for the sprouting seed, but for the plant to thrive and do well, low pH soils should be limed at least six months in advance to create the environment best suited for the legume being present. Most clovers like a soil pH of 6.2 to 6.8 with preference on the upper end of that range.

And About that Residue/Residual
Earlier I included residue/residual in a statement and there is a reason I did that. Just recently, Jim Gerrish’s article last week in On Pasture noted that we need to be more careful of the use of these two words in regards to the forage left in the pasture after a grazing episode. I totally agree and thought this statement was excellent! I try to stick to these same definitions and if I have ever deviated from this, I apologize. So, with that said, how is the residue and residual in your pastures today? Keep on grazing!

Retail Beef Prices Continue Higher Than Last Year
By: David P. Anderson, Professor and Extension Economist, Texas A&M AgriLife Extension Service
Source: https://u.osu.edu/beef/2021/01/20/retail-beef-prices-continue-higher-than-last-year/#more-10185

One common question from back in 2020 was how quickly retail beef prices would return to pre-pandemic levels. Retail beef prices have declined, but remain above year ago levels.

USDA’s All Fresh beef price series peaked at $7.38 per pound in June, 2020. The December monthly average price (released on January 14th) was $6.23 per pound. Retail beef prices declined fairly quickly after the June peak and were averaged $6.38 in August. This data, reported by USDA, is gathered by the Bureau of Labor Statistics and reflects a monthly price from grocery stores across all beef quality grades and a range of beef cuts.

All fresh retail beef prices in 2020 were above those of 2019 the entire year. The price in March, pre-pandemic, averaged $5.96 per pound and finished the year at $6.23. Compared to December 2019, December 2020’s all fresh beef price was $0.264 per pound, or 4.4 percent higher.

For the year, beef prices increased 9.7 percent over 2019. That was the largest annual increase in beef prices since 2014 when beef prices increased 13.4 percent. Price increases in 2014 were driven by drought induced tight beef supplies. Most of the increase in beef prices in 2020 occurred in the second quarter of the year, with price increasing 18 percent year-over-year. Beef prices also increased by 11 percent in the 3rd quarter over the prior year. In the aftermath of the drought, beef prices registered 5 consecutive quarters of year over year increases as supplies continued to decline and demand grew. In case anyone wondered, 2016 and 2017 were the last years that average all fresh retail beef prices declined compared to the prior year.
Beef prices were above the year before in December for a variety of beef cuts. Increases ranged from about 2 percent for ground beef to about 6 percent for chuck roasts and a number of steak cuts. USDA reports data on grocery store retail featuring activity and this data indicates some growth in retail beef featuring across a variety of cuts, particularly chucks and briskets.

Several factors may be contributing to higher reported retail prices when wholesale and live cattle prices have been at, or below, last year’s levels. The data reflects only grocery store prices. Grocery stores have sold more beef, in volume and value, compared to the year before due to restaurant shutdowns. It’s also likely that costs have increased between wholesale and retail levels due to compliance with corona virus restrictions and constraints in processing. It may be difficult to get average retail prices below pandemic levels in coming months as beef production is expected to decline, cyclically, this year and, hopefully, the economy is able to fully open expanding restaurant demand.

Visit our “One-Stop Shop” to View Ag & Natural Resources Programs

As the pandemic continues to create challenges for meeting and/or offering ‘live’ and in-person programming, much of OSU Extension’s traditional winter programming remains ‘virtual’ into the foreseeable future. In response, check out this one-stop shop to view upcoming regional and statewide agriculture and natural resources programs at: https://agnr.osu.edu/programming. Once there, simply click the topic you are interested in to view 2020-21 events, including agronomy, beef, forage and farm management programs. If you have any questions, please contact us at the Coshocton County Extension office at 740-622-2265 or email marrison.2@osu.edu

Most Farm Families Rely on Off-Farm Income

By: Chris Zoller, Extension Educator, ANR in Tuscarawas County
Source: https://u.osu.edu/ohioagmanager/2021/01/20/most-farm-families-rely-on-off-farm-income/

The United States Department of Agriculture Economic Research Service (USDA-ERS) completed a survey in 2019 to determine the number of hours principal farm operators work per week on-farm and off-farm. USDA-ERS defines the principal operator as the person who makes day-to-day decisions. The paragraph below is taken directly from the report.

Off-farm income supplements farm income for most farm households, in addition to offering benefits such as health insurance. In 2019, about 71 percent of farm households had one or more household members earning an off-farm salary or wage. More than 40 percent of principal operators worked off-farm, contributing about 54 percent of the total off-farm labor hours reported for their households. Principal operators who reported off-farm employment worked on average 15 hours off the farm per week in 2019. Compared with the seasonality of on-farm work, off-farm work offered principal operators more consistency—with operators working about 25 percent of total off-farm hours in each quarter of the year. However, principal operators who worked more on-farm tended to work less off-farm across a variety of commodities. On average, principal operators with livestock, beef cattle, and fruit and tree nut farm operations worked fewer on-farm hours and more off-farm hours in 2019. Principal operators on those farms may be more vulnerable to disruptions in the off-farm economy, such as increased unemployment because of the COVID-19 pandemic.
Hello, Northeast Ohio! As we each traverse through our lives, we all are presented with moments that make us pause and reflect on how precious the time is we have been given here on earth. I know this past year has been filled with such moments for many.

Death is a topic that many of us are not comfortable talking about. It is even harder to think about our own mortality. From my experience, death has the potential to bring a family closer or rip it apart. I hope the events of the past year have been a trigger for you to talk and think about how your family and your farm will operate once you are gone.

One of the hypothetical questions we pose in our OSU Extension farm succession workshops is, “What knowledge would you need to pass on if you knew you had only 2 months to live?” This exact scenario happened to our family over a decade ago when my father was diagnosed with pancreatic cancer.

I am grateful that we had the seven weeks with my dad to make preparations. I challenge you to think how your farm and family would react to the loss of the principal operator. What knowledge and skills need to be transferred to the next generation so they can be successful without you? If there is no farming heir, what will happen to the farm? Will it be sold? Or does the family transition from owner-operator to an owner-landlord role?

To help jump start your family’s conversation, I am pleased to announce that OSU Extension will host a virtual three part “Planning for the Future of Your Farm” workshop on February 15, 22 and March 1, 2021, from 6:30 to 8:30 p.m. via Zoom. This workshop is designed to help farm families learn strategies and tools to successfully create a succession and estate plan that helps you transfer your farm’s ownership, management, and assets to the next generation.

Topics discussed during this series include: Developing Goals for Estate and Succession; Planning for the Transition of Control; Planning for the Unexpected; Communication and Conflict Management during Farm Transfer; Legal Tools & Strategies; Developing Your Team; Getting Affairs in Order; and Selecting an Attorney.

This workshop will be taught by members of the OSU Farm Office Team featuring Peggy Hall and Jeffrey Lewis, Attorneys from the OSU Agricultural & Resource Law Program, and David Marrison, Extension Educator for Coshocton County.

Because of the program being held virtually, it is a great opportunity for parents, children, and grandchildren to join together regardless of where they live in Ohio or across the United States to develop a plan for the future of your family farm.

Pre-registration is required as one packet of program materials will be mailed to participating families. Electronic copies of the course materials will also be available to all participants. The registration fee is $40 per farm family. The registration deadline is February 10, 2021. More information and on-line registration can be accessed at go.osu.edu/farmsuccession
I hope many of you will join us to start your plan or use the webinar series as a chance to review and refresh your existing plan. For more information about this series, you can contact me at the Coshocton County Extension Office at 740-622-2265 or by email at marrison.2@osu.edu.

OSU Extension will host a virtual three part “Planning for the Future of Your Farm” workshop on February 15, 22 and March 1, 2021 from 6:30 to 8:30 p.m. via Zoom. This workshop will challenge farm families to actively plan for the future of the farm business. This workshop is designed to help farm families learn strategies and tools to successfully create a succession and estate plan that helps you transfer your farm’s ownership, management, and assets to the next generation. Learn how to have the crucial conversations about the future of your farm.

Topics discussed during this series include: Developing Goals for Estate and Succession; Planning for the Transition of Control; Planning for the Unexpected; Communication and Conflict Management during Farm Transfer; Legal Tools & Strategies; Developing Your Team; Getting Affairs in Order; and Selecting an Attorney

This workshop will be taught by members of the OSU Farm Office Team featuring Peggy Hall & Jeffrey Lewis, Attorneys from OSU Agricultural & Resource Law Program and David Marrison, Extension Educator for Coshocton County.

Because of its virtual nature, you can invite your parents, children, and/or grandchildren (regardless of where they live in Ohio or across the United States) to join you as you develop a plan for the future of your family farm.

Pre-registration is required as one packet of program materials will be mailed to participating families. Electronic copies of the course materials will also be available to all participants. The registration fee is $40 per farm family. The registration deadline is February 10, 2021. More information and on-line registration can be obtained at go.osu.edu/farmsuccession. For more information about this webinar contact David Marrison at the Coshocton County Extension office at 740-622-2265 or by email at marrison.2@osu.edu.

“We all die. The goal isn't to live forever, the goal is to create something that will.”

By: Chuck Palahniuk
Changing weather patterns have led to fewer days available in the spring to complete planting, spraying, and fertilizing. University and industry experts will share research results and technology available to help you work smarter and more efficiently.

January 5th – Gambling with Planting Decisions  
Drs. Aaron Wilson and Bob Nielsen

January 12th – Planter Placed Fertilizer  
Matt Bennett and Dr. John Fulton

January 19th – Pre-season Crop Protection Decisions  
Drs. Mark Loux and Scott Shearer

January 26th – Sprayer Technology to Improve Field Performance  
Dr. Joe Luck

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The Dirt on Soil Health:
Investing Below the Surface

Join OSU Extension online this winter for a Thursday morning series about soil health. Starting on January 14, we will dig below the surface to investigate new developments in soil health and soil management. All sessions are 8:00-8:30 a.m. and feature a variety of speakers from Ohio and beyond. The series is free, but participants must register at go.osu.edu/soilhealth2021.

1/14  **Does It Pay to Improve Soil Health on Your Farm?** 0.5 NM CCA CEUs
Farmer Panel: Nathan Brown, Matt Falb, Les Seiler

1/21  **What Can Soil Health Tests Tell You?** 0.5 NM CCA CEUs
Steve Culman, Ohio State School of Environment and Natural Resources

1/28  **Can Improving Soil Health Improve Yield?** 0.5 CM CCA CEUs
Jordon Wade, University of Illinois at Urbana-Champaign

2/4   **Cover Crop Management for Soil Health** 0.5 SW CCA CEUs
Hans Kok, Indiana Conservation Cropping Systems

2/11  No session – Corn College

2/18  **Compaction Solutions** 0.5 SW CCA CEUs
Scott Shearer, Ohio State Food, Agricultural and Biological Engineering

2/25  **Using Ohio Data and Research to Improve Soil Health** 0.5 NM CCA CEUs
Steve Culman and Elizabeth Hawkins, Ohio State Extension

3/4   **What’s the Return on Investing in Soil Health?** 0.5 SW CCA CEUs
Rick Clark, Green America

3/11  No session – CTC

3/18  **Programs and Funding to Support Soil Health** 0.5 NM CCA CEUs
Panel presentation – speakers TBA

CCA CEU credit available for all sessions.

More 2021 events at agnr.osu.edu/programming
Who should attend:
Women and young women (high school age) who are interested, involved, or want to become involved in food, agriculture, natural resources, or small business.

These webinars are a great place to learn, share and network. Be surrounded by other women who are facing the same day-to-day ups, downs, adventures and dilemmas as you.

♦ 10 free webinars 2nd and 4th Thursdays January-May 12:00 to 1:00 PM
♦ 3 free in-person field days 1st Tuesdays March-May 5:30 to 8:30 PM
(Dinner available for $15)

Webinar Registration: go.osu.edu/eowiaseries2021
Field Day Registration: go.osu.edu/eowiafieldddays2021
**Cancellation Policy:** In-person sessions may be cancelled due to university, state or local guidelines on group events. The event will not be rescheduled. No registration fees will be refunded.
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Contact information: David Marrison, 740-622-2265 or marrison.2@osu.edu