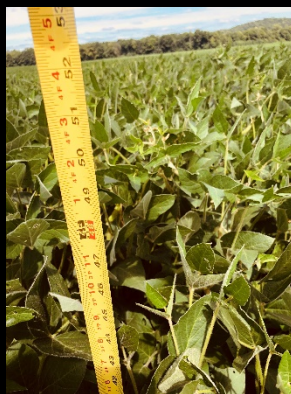


COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES**August 19, 2020 Issue**

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Hello, Coshocton County! It is hard to believe that we are already half-way through the month of August. What a welcomed relief for some rain to pass through this past weekend. Our crops are looking good; however we know how important it will be to keep getting timely rains.

2020 continues to wreak havoc across the United States. An ugly derecho ripped through the cornbelt on August 10. I know many of you remember not so fondly the devastation from our 2012 derecho. Agriculturally, an estimated 37 million acres were impacted in some manner by the storm. In Iowa it is estimated that 14 million crop acres were impacted with \$6 billion in liability losses.

We (SWCD, NRCS, OSUE) hope to see many of our beef producers at next week's pasture walk. There are a lot of great things to see at the Endsley Farm. Hope to see you there.

Have a great week. Stay well!

Sincerely,

David Marrison

Coshocton County OSU Extension ANR Educator



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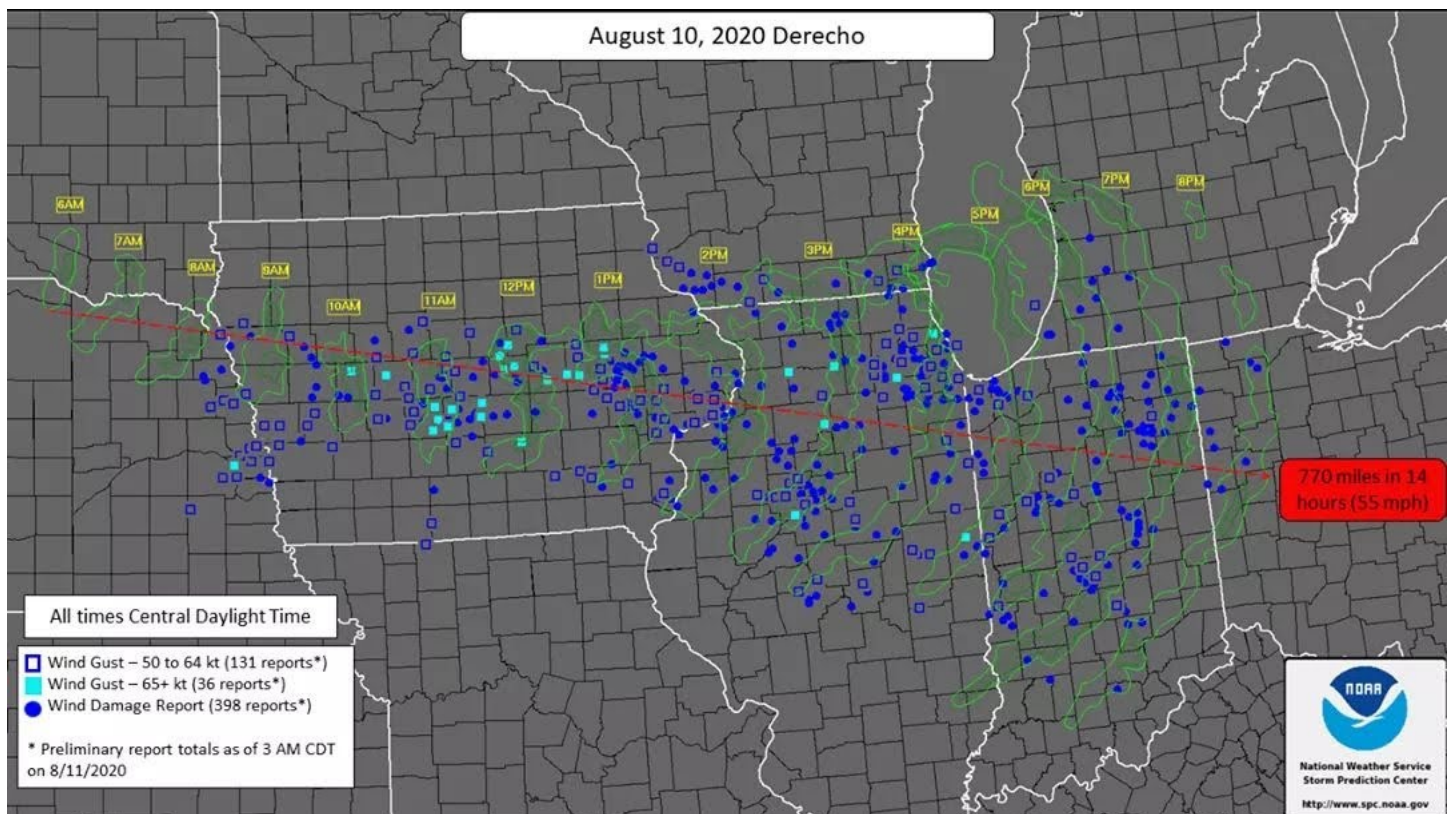
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Derecho Devastates the Midwest While Ohio's Dry-Weather Continues

By: Aaron Wilson

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-27/derecho-devastates-midwest-while-ohios-dry-weather-pattern>

On Monday August 10, 2020, a powerful weather system known as a derecho (pronounced “deh-REY-cho”) impacted nine states from South Dakota to Ohio (Figure 1). The National Weather service defines a derecho as a long-lived windstorm that produces widespread damage like a tornado but in one direction along a straight path or “straight-line wind damage.” Last week’s derecho was exceptionally damaging to agricultural interests, particularly in Iowa. Numerous reports of winds stronger than 70 mph were noted with an unofficial gust to 106 mph at Le Grand. According to the Iowa Soybean Association, the latest USDA reports suggests 14 million impacted crop acres with \$6 billion in liability losses. Only minor damage was reported in northwest Ohio as the derecho weakened below severe limits Monday evening, but it brought a decent round of rainfall to the area. The last major derecho to occur in Ohio was on June 29, 2012 which brought 22 fatalities from Illinois to the Mid-Atlantic and \$2.9 billion in losses.



8-10-20 Derecho Map

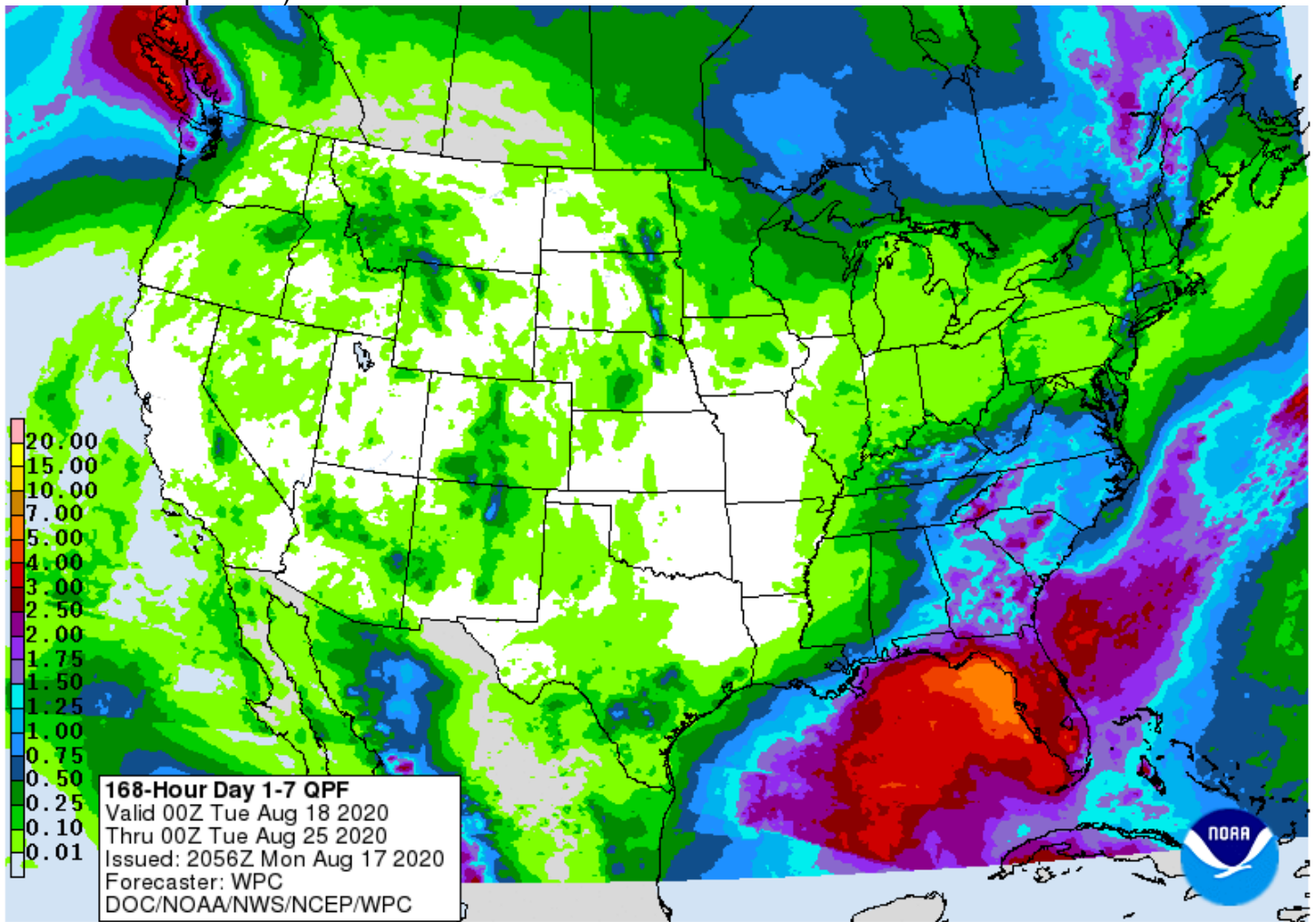
Figure 1: Preliminary storm reports associated with the August 10, 2020 derecho.

Weather Summary

Although the last couple of weeks have featured multiple rounds of showers and storms across Ohio, much of the state has seen below average precipitation. Rainfall amounts of 2-3" have been scattered across counties in northwest, southwest, and south-central Ohio, with some locations picking up even greater totals (e.g., 3.98" near Archbold in Fulton County). As of Thursday August 13, 2020, the [U.S. Drought Monitor](#) indicates ~71% of the state is currently experiencing abnormally dry to moderate drought conditions, with the driest areas located across Madison, Pickaway, Richland, Wayne, Stark, Belmont, and Jefferson Counties. Soil moisture remains depleted along with low flows on streams in these areas. If you are seeing drought impacts in your area, consider submitting a report to the [Drought Impact Reporter](#). For more information on recent climate conditions and impacts, check out the latest [Hydro-Climate Assessment](#) from the [State Climate Office of Ohio](#).

Forecast

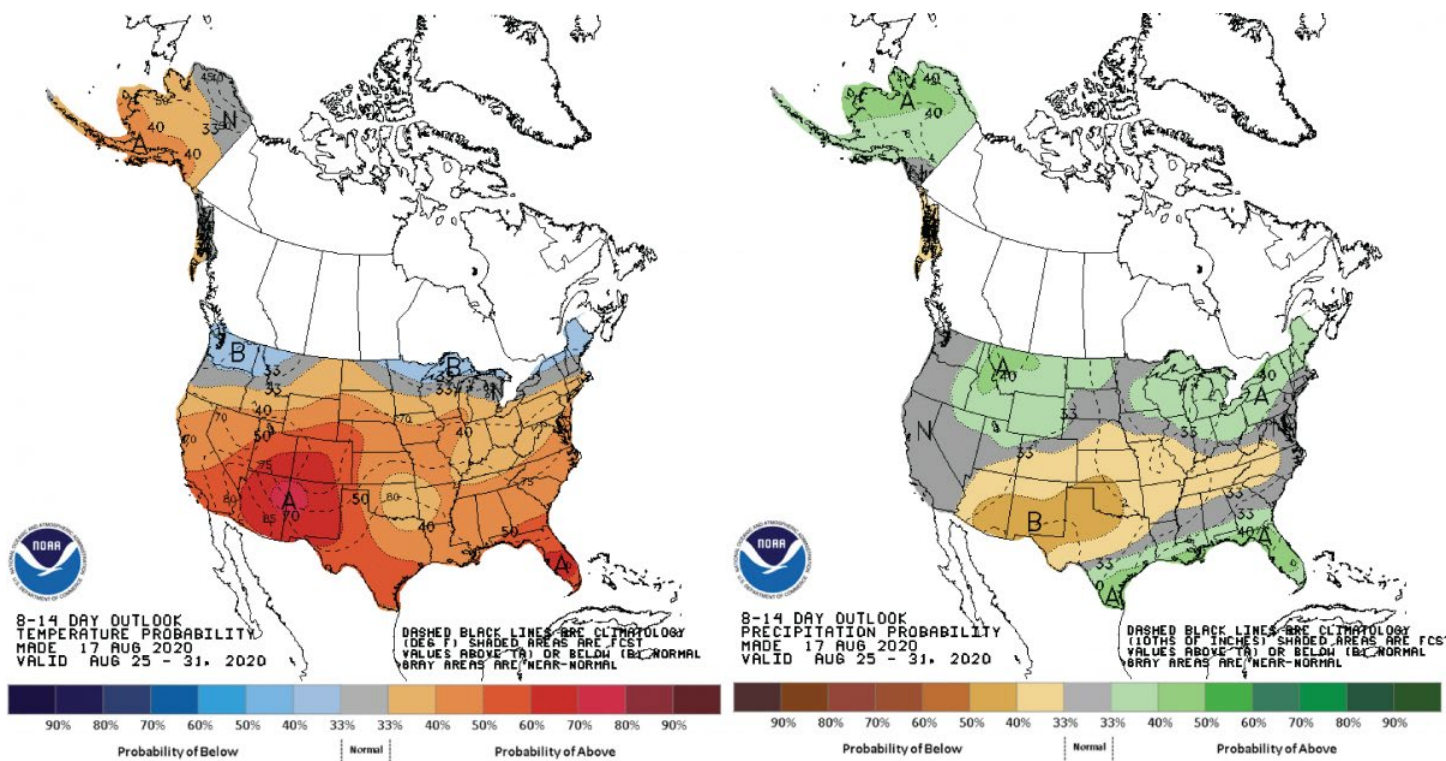
While a slight chance for an isolated storm continues through Tuesday, drier and cooler air will be in control for much of the week ahead. Highs will generally range from the mid-70s to the low-80s (north to south) on Tuesday and Wednesday, slowly warming back into the 80s statewide by the weekend. Overnight lows this week will dip into the low to mid 50s for many as well. A few storms may develop as we end the weekend into early next week. Overall, precipitation will be on the light side (Figure 2), with less than 0.10" expected (locally heavier rainfall possible).



Precipitation Forecast Map

Figure 2: Forecast precipitation for the next 7 days. Valid from 8 pm Monday August 17, 2020 through 8 pm Monday, August 24, 2020. Figure from the Weather Prediction Center.

The latest [NOAA/NWS/Climate Prediction Center](#) outlook for the 8-14 day period (August 25 – 31) and the [16-Day Rainfall Outlook from NOAA/NWS/Ohio River Forecast Center](#) show slightly elevated probabilities for above average temperatures and above average precipitation (Figure 3). Normal highs during the period are in the low to mid-80s, lows in the low to mid-60s, with 0.85-1.05" of rainfall per week. From a drought perspective, this is likely to maintain current conditions.



Outlook Map

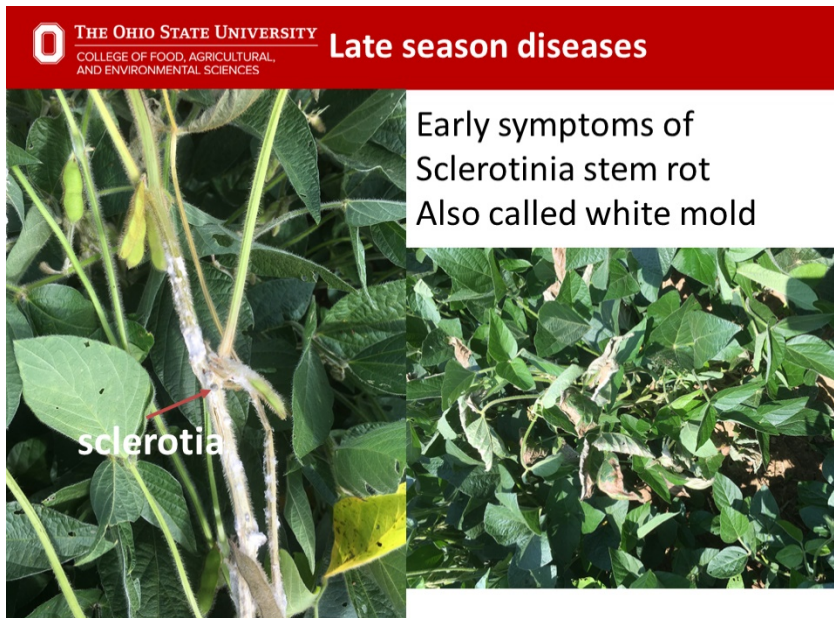
Figure 3: Climate Prediction Center 8-14 Day Outlook valid for August 25-31, 2020 for (left) temperatures and (right) for precipitation. Colors represent the probability of below, normal, or above normal conditions.

How to Identify Late Season Soybean Diseases in 2020

By: Anne Dorrance

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-27/how-identify-late-season-soybean-diseases-2020>

Sclerotinia stem rot – The nights have been cool this growing season, even when the days were very warm. The fog this morning in Wayne County reminded me that this is the time of the year to begin to scout for this stem disease. Sclerotinia is caused by a fungus that survives from season to season and over several years from sclerotia. The infections actually occurred during flowering when the canopy was closed, and cool nights can really enhance and favor this disease. For this disease, disease levels can reach 20% incidence before there is a measurable yield loss. Sclerotinia will occur as single plants or small patch of dying plants, that wilt and turn an deeper olive green color. Look at the stem and white fluffy growth will appear on the stem, this is the sign of the fungus.



Sudden Death Syndrome – reports that this disease is also beginning to develop in some areas of the state where soybeans are reaching R6. Symptoms include irregular yellow spots, which turn brown or necrotic between the veins. Interestingly the veins are surrounded by green. The center of the stem or pith is bright white in this disease. This is a fungal pathogen and infections most likely occurred shortly after planting and this fungus causes extensive root rots. Figure has both susceptible and resistant cultivar. There is a look alike symptom caused by triazole fungicides when applied under hot conditions. To separate these two, if a triazole had been sprayed, look at the roots. The roots will be very healthy where SDS, the roots and the center of the tap root are discolored.

Diaporthe stem canker (northern and southern) have both been problems in recent years. On susceptible cultivars the plants will die early in patches. For Northern, there is a canker at the third node which girdles the plant. For Southern, there can be several reddish cankers on the stem and the internal pith tissue is a reddish brown.

Phytophthora stem canker – numerous reports this year due to localized flooding events and in places that have not reported it very frequently. Phytophthora stem canker will occur 1 to 2 weeks after a heavy rain and in fields with poor drainage. The plants will wilt first, leaves will turn yellow, and a chocolate brown canker will form from the bottom of the plant to almost mid-height. The key difference between this and Northern Diaporthe stem canker is the length of the canker and where it originates. If the canker begins below ground, the roots are discolored it is Phytophthora.

Are Stink Bugs in Your Soybeans?

by: Andy Michel & Kelley Tilmon

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-27/are-stink-bugs-your-soybean>

As soybean begin to produce pods and seeds, it becomes a good food source for stink bugs. These insects like to feed on the developing seed, leading to wrinkled or shriveled seed. There are many types of stink bugs, but Ohio's most common stink bugs include the green, the brown and the brown marmorated. Also, stink bugs have nymphal stages that can look very different than the adults—nymphs are smaller and lack wings but feed all the same, if not more, than the adults. To look for stinkbugs, take a set of 10 sweeps in 10 different areas of the field (although stink bugs are mostly found along the edges, they can also be found in the interior of the field). If the average number of stink bugs is higher than 4 per set of 10 sweeps, treatment is necessary (this decreases to 2 per set of 10 sweeps if soybean is grown for seed or food grade). Visit our website for more information on stink bugs in soybean, including helpful guides for identification (aginsects.osu.edu).

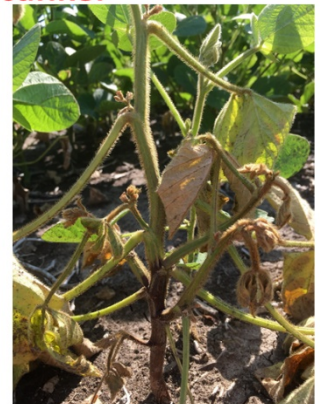
THE OHIO STATE UNIVERSITY COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES **Late season diseases**



Diaporthe southern stem canker

THE OHIO STATE UNIVERSITY COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

Phytophthora stem canker



Thinking About Storing More Grain This Fall?

By: Chris Bruynis, Associate Professor/Extension Educator

Source: <https://u.osu.edu/ohioagmanager/2020/08/18/thinking-about-storing-more-grain-this-fall/>

There are several market factors that may have farmers looking to increase their storage for this fall. With lower prices, some farmers will look to store grain and hope prices will improve. With the current basis and price improvement between the harvest period compared to the January/March delivery period of 22 to 40 cents for corn and 16 to 34 cents for soybeans, elevators are sending a message to store grain.

The concern I have is that we will use some facilities that are not typically used for grain storage making aeration challenging at best. With poor air movement, grain going into storage will need to be of better quality, lower foreign material, and probably lower moisture.

Farmers interested in learning some strategies for successful drying and storage of grain, specifically corn and soybeans, are invited to join a Zoom Webinar on Monday August 24, 2020 at 8:00 PM. Dr. Kenneth Hellevang, Ph.D., PE, Extension Engineer and Professor from North Dakota State University will be the featured speaker. He is one of the leading experts on grain drying, handling and storage.

To join the webinar, go to

<https://osu.zoom.us/j/7911606448?pwd=L1pQQ0VoODROZG56Q015enNBQkVVUT09> and enter the Password: STORAGE

Also, if you cannot attend the program during the broadcast time, the recording will be available on the Ohio Ag Manager website following the program. The recording will be located at <https://u.osu.edu/ohioagmanager/resources>.

If you have questions, contact Chris Bruynis, bruynis.1@osu.edu or 740-702-3200. If you need assistance logging in on the evening of the program, contact David Marrison at 740-722-6073 or marrison.2@osu.edu.

Fertility Calculator for Ohio Recommendation

By: Greg LaBarge

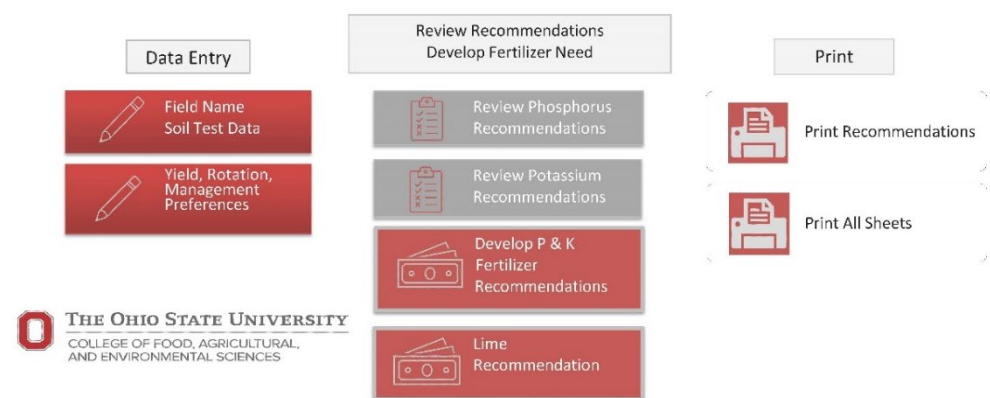
Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-27/fertility-calculator-ohio-recommendation>

A Microsoft Excel spreadsheet has been developed to support nutrient management education programs provided by Ohio State University Extension and for users who want to generate their own recommendation or compare recommendations provided to them to the Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat, and Alfalfa, 2020. The spreadsheet is designed to be compatible with Excel version, Excel 1997-2003 or later.

The tool generates recommendations for the following crops:

1. Corn
2. Corn-Silage
3. Soybeans
4. Wheat (Grain Only)
5. Wheat (Grain & Straw)
6. Alfalfa
7. Grass Hay
8. Grass/Legume Hay

Fertilizer Calculator for Ohio



Overview of spreadsheet features:

- There are 21 data lines.
- Data can be copied from another spreadsheet or within the spreadsheet
- User controls whether recommendations are build/maintenance or maintenance only for phosphorus (P) & potassium (K) recommendations.
- User can select when a field the critical level used for corn/soybean rotations or wheat, alfalfa, or grass legume hay for P recommendations.
- Can select a shorter or longer buildup period than standard 4 year for P & K.
- P & K recommendations are displayed with buildup and maintenance requirements separately.
- Total fertility need can be determined for a 1-, 2- or 3-year application on P & K Recommendation page.
- User can determine total cost of P & K fertilizer needed to meet the nutrient recommendation.
- Lime recommendations are developed using target final soil pH and tillage depth.
- User can compare cost of two lime sources.
- User can determine total cost of Lime needed in the recommendation developed.

The spreadsheet is available at: <https://go.osu.edu/ohiofertilitytool>

A printed User Guide is available at: <https://go.osu.edu/ohiofertilitytoolguide>

A video demonstration at: <https://go.osu.edu/ohiofertilitytoolvideo>

Facing Farm Financial Stress: Assessing the Bankruptcy Option

Source: <https://u.osu.edu/ohioagmanager/2020/08/13/facing-farm-financial-stress-assessing-the-bankruptcy-option/>

Farming has always been an unpredictable way to make a living, and that unpredictability can lead to financial stress. Whether caused by down markets, weather impacts, rising input costs, high land values, poor decision making, medical issues or a host of other unforeseen circumstances, serious financial stress can be a reality a farmer must face.

Filing bankruptcy can be one way to address farm financial stress. But because of its consequences, bankruptcy is not a decision to take lightly and might not be the best option. Our newest resources target farmers who are dealing with financial challenges and considering bankruptcy. [Facing Farm Financial Stress: An Overview of the Bankruptcy Option](#) offers a seven part series of law bulletins and infographics focused on bankruptcy issues for farmers. The series covers:

- Assessing the bankruptcy option. Steps to take and considerations to make when dealing with financial stress, including alternatives to bankruptcy and farmer to farmer advice from families that have been through the bankruptcy process.
- An overview of bankruptcy law. We explain and visualize the legal process, people, institutions and legal terms involved in bankruptcy with a focus on Chapter 12, the law reserved for qualifying farmers and fishermen.
- Thriving after a farm bankruptcy. Ideas for setting a course to attain farm financial stability and reestablish relationships after filing bankruptcy, including farmer to farmer advice from those who've survived bankruptcy.

Our team of authors, which included myself along with OSU's David Marrison, Hannah Scott and Chris Zoller—created the resources with support from the USDA's National Agriculture Library and in partnership with the National Agricultural Law Center (NALC). The series is available on our Farm Office site at:



<https://farmoffice.osu.edu/ag-law-library/farm-finance-law> or on NALC's site at:
<https://nationalaglawcenter.org/center-publications/bankruptcy/>

Pasture Walk Slated for August 25

Area beef producers are invited to join the Coshocton Soil & Water Conservation District, Natural Resource Conservation Service and OSU Extension at a **Summer Pasture Walk** on Tuesday, August 25 at the Todd Endsley Farm located at 27613 State Route 83 north of Coshocton, Ohio.

During the walk, we will tour the Endsley cattle operation and their pasture management system. Christine Gelley, OSU Extension from Noble County, will be sharing information on using warm season grasses in pasture systems.

This event will begin at 6:30 p.m. There is no cost to attend and light refreshments will be available. Reservations are not required but appreciated. Participants are reminded to follow social distancing requirements at this outdoor event. Call the Coshocton SWCD at 740-622- 8087, Ext 4 or email samanthadaugherty@coshoctoncounty.net for more details or to RSVP.



Valuing Bred Beef Heifers

By: Dr. Andrew Griffith, Assistant Professor, Department of Agricultural and Resource Economics, University of Tennessee

Source: <https://u.osu.edu/beef/2020/08/19/valuing-bred-beef-heifers/>

Several weeks ago, there was a discussion on rules of thumb for valuing bred beef heifers. This led to a question this week about rules of thumb related to valuing bred cows and their appreciation and depreciation. There are no rules of thumb, but there was some research performed at Oklahoma State University that can be helpful in determining bred cow value. The study found several factors including animal age, weight, overall quality, stage of gestation, hide color, and time of year influence price. Based on the study findings, bred heifers and three year old animals have the highest value, but bred cows hold their value fairly well until age six. Bred cow values increases the longer bred an animal is and the heavier she is.

There are some rather useful details in the study that can be used to assist producers in determining bred cow value as well as make management decisions to reduce value loss due to depreciation. The complete study can be found at the following website https://www.cambridge.org/core/services/aop-cambridge-core/content/view/B86DA932FD2E964ECF4FFD31680C0EB9/S1074070817000207a.pdf/price_determinants_of_bred_cows.pdf.

Is it Oak Wilt or Not?

By: Amy Stone

Source: <https://bygl.osu.edu/index.php/node/1668>

Oak wilt is a very serious and often deadly disease of oaks, specifically the oaks in the red or black oak group. The actual pathogen (*Bretziella fagacearum*) that causes the disease has been known to be in Ohio for many decades. Some years, it appears to be worse than others. Oak wilt is not like the emerald ash borer that spreads rapidly, almost like a tidal wave moving in one direction. Oak wilt builds in a way that it can radiate out to other like trees, but advances at a slower pace, but even then, can cause tree death in a single season, and often in a matter of weeks. When not managed it can continue to spread or move-out across an oak dominated landscape, park or woodlot as pictured below.

The fungus invades the sapwood or the water conducting tissues of the tree. In addition to its actual presence in the tree, it also triggers a defense reaction by the tree to stop the fungal spread. This action interferes with water uptake from the tree roots upwards to branches and ultimately leaves in the canopy. The result is wilting. Leaves turn brown from the tips, inward to the base of the leaf that attached to the branch. It has been described that this transition on the leaf looks like if you dipped it partially in milk chocolate.

While all oaks are susceptible to this fungus, those in the red or black group; black, pin, northern and southern red, scarlet, shingle and shumard oak are extremely susceptible and can die within a few weeks of infection. Oaks in the white group that include bur, chinquapin, post, swamp white, and white oak are more tolerant of the disease and can even survive infection for one or more years while displaying declining symptoms.

When the initial infection occurs, branches or large limbs will wilt. This is called flagging. The leaves on those branches will fall prematurely and it looks like fall in the middle of summer. The fungus will then continue to move throughout the tree.

If you have seen oak wilt a lot, you become familiar with the look or appearance. However, with that said, the only way to know for sure, is to test the infected plant material for confirmation. A conclusive diagnosis can only be made in specialized laboratories, like the Ohio State University C. Wayne Ellett Plant and Pest Diagnostic Clinic. There is a \$20 fee for the test that will look for the presence of the pathogen's DNA.



There can be other issues, or a combination of issues, that can cause similar symptoms, so proper disease diagnosis is critical. Other factors include drought conditions like we are currently experiencing, construction damage including root injury, insect pests, other diseases including anthracnose, bacterial scorch and root rot.

While insect-spread is an important medium to long-range dispersal, it is estimated that 90 percent of new infections occur between neighboring trees through root grafts. It looks like the disease radiates out from the initial infection. In order to manage oak wilt it is important to understand its cycle. The fungus spreads in two ways - overland and underground. A picnic beetle can pick up the spores on its body when visiting an infected tree, and then visit a healthy tree and 'vector' the pathogen. There is some evidence that oak bark beetles may also be moving the fungus from tree to tree. Once the disease is present, it can spread underground through root grafts – roots from different trees in the same genus that have grafted together.

What can you do to protect oak trees? You can deter the overland spread by the insect by ensuring that trees are never wounded between April 1 – October 15, especially in areas of the state where oak wilt is a concern. If trees must be pruned for safety reasons during the growing season, it is recommended that the cut surface be covered with latex paint. This can slow wound healing, but more importantly will deter beetles from landing on the wounds. If you are in an area where there are dead and dying oak trees as a result of oak wilt, there are additional efforts you may consider including: preventative fungicide treatments, and/or trenching if trees infected trees are in the immediate area and could share root grafts.

For additional information, check out the OSU Fact Sheet on Oak Wilt at <https://ohioline.osu.edu/factsheet/plpath-tree-02> authored by Pierluigi (Enrico) Bonello with OSU's Department of Plant Pathology.

Additionally, if you have a dead or declining oak that you suspect has oak wilt and would like it tested, contact OSU's PPDC directly making sure that you communicate that you suspect oak wilt and want to test for the presence of the pathogen. Check out the PPDC website for additional information including the form that will need to accompany a suspect sample being sent the OSU lab in Reynoldsburg, Ohio: <https://ppdc.osu.edu/>