

NORTHEAST OHIO AGRI-CULTURE NEWSLETTER

Your Weekly Agriculture Update for
Ashtabula, Portage and Trumbull Counties

Nov 8, 2022



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Hello Northeast Ohio Counties!

We hope everyone is continuing to have safe harvest. With our dry conditions harvest has been moving along quickly this year.

Don't forget if you signed up for early bird PAT recertification it is tomorrow.

Be safe and have a great week!

Lee Beers
Trumbull County
Extension Educator

Andrew Holden
Ashtabula County
Extension Educator

Angie Arnold
Portage County
Extension Educator

Weather Update: Fall Drought Conditions Expand

By: Aaron Wilson

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2022-39/weather-update-fall-drought-conditions-expand>

Drought conditions continue to expand across Ohio. As of the latest report on Thursday November 3, 2022, 86% of Ohio is abnormally dry with 43% of the state classified as D1 or in Moderate Drought (Figure 1). West Central Ohio (centered on Darke County) has been

particularly dry, only receiving about 25% of

normal rainfall over the last 90 days. Dry conditions have dropped stream flows, diminished soil moisture, hindered wheat and cover crop emergence, and contributed to numerous field and equipment fires across the region. Record highs in the upper 70s combined with gusty winds over this past weekend did little to help conditions. Over the past two months, several stations across Ohio (Akron, Dayton, Cincinnati, Columbus, Findlay, and New Philadelphia) have all experienced their top 5 driest stretches for this period. For the latest up-to-date conditions, seasonal outlooks, and monthly climate summaries, please visit the [State Climate Office of Ohio](#).

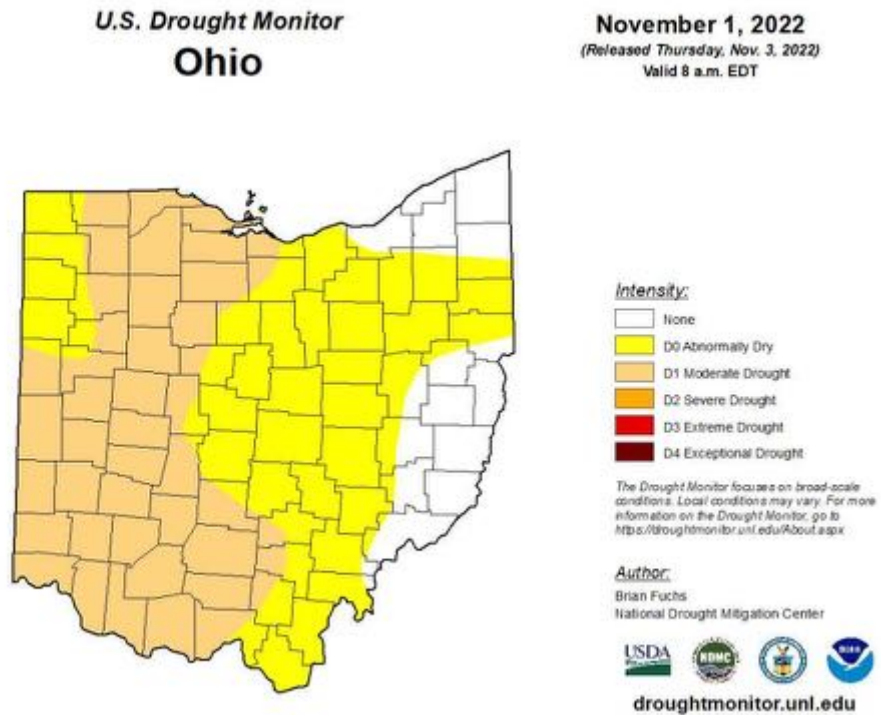


Figure 1 Drought Monitor status for Ohio as of Thursday November 3, 2022

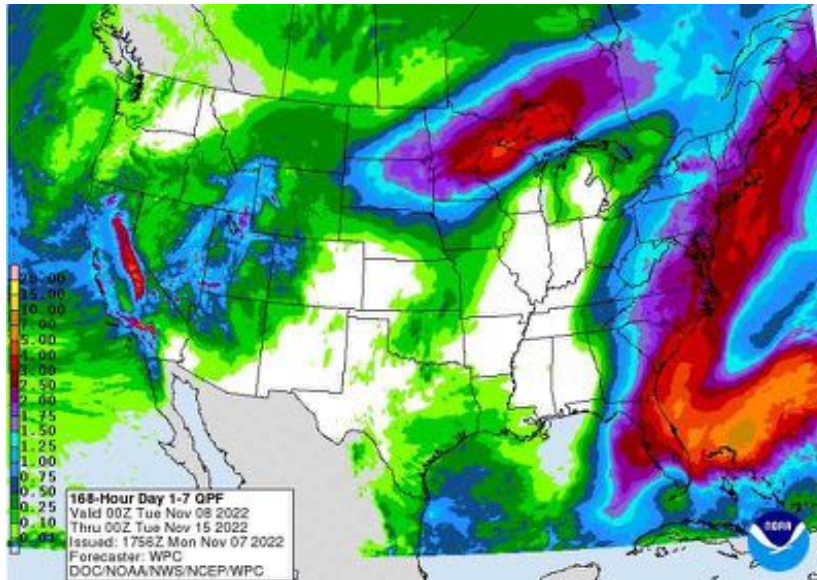


Figure 2 Precipitation forecast from the Weather Prediction Center for 7pm Monday November 8 – 7pm Monday November 14, 2022.

There is not much in the way of precipitation relief this week for the driest areas of the state. High pressure will remain in control through Thursday, before the combination of a strong cold front moving in from the west and tropical moisture surging northward ahead of the front could bring showers into the region on Friday. Much colder air, highs generally in the 30s and 40s and overnight lows in the 20s will follow for the weekend. Lake effect rain and snow will continue for

the northeast as well. The Weather Prediction Center is currently forecasting up to 1.00” of precipitation across eastern counties of Ohio this week (Figure 2).

The Climate Prediction Center’s 6–10-day outlook for the period of November 13 - 17, 2022 and the 16-Day Rainfall Outlook from NOAA/NWS/Ohio River Forecast Center show a major weather pattern shift, with below normal temperatures likely but precipitation still leaning below average for the period (Figure 3). Climate averages include a high-temperature range of 52-56°F, a low-temperature range of 34-38°F, and average weekly total precipitation of 0.65-0.85 inches.

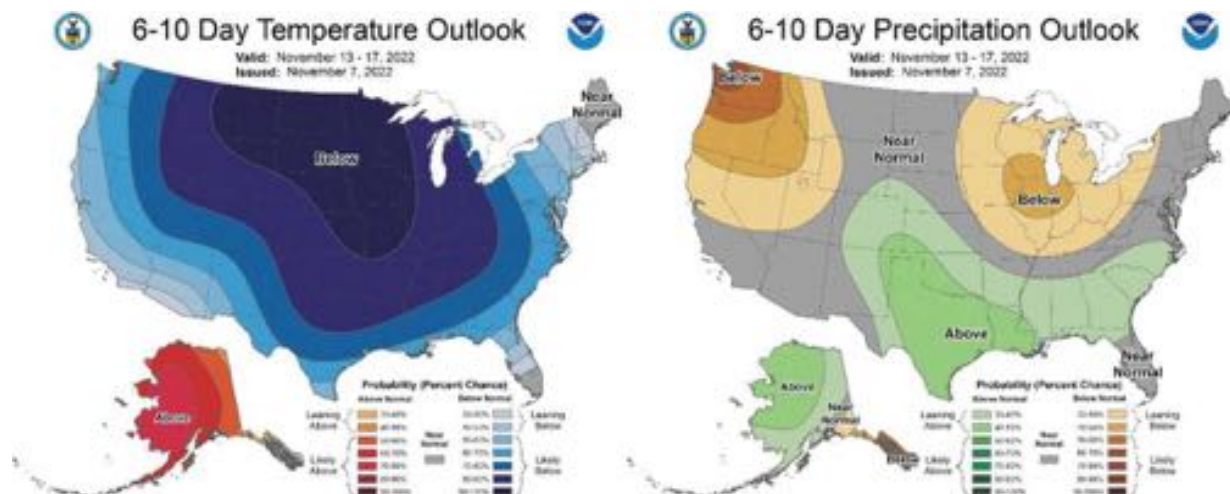


Figure 3 Climate Prediction Center 6-10 Day Outlook valid for November 13 – 17, 2022 for left) temperatures and right) precipitation. Colors represent the probability of below, normal, or above normal conditions.

Northeast Ohio Agriculture

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Selecting a Business Structure

By: Robert Moore

Source: <https://farmoffice.osu.edu/blog/thu-11032022-1241pm/selecting-business-structure>

According to the Ohio Secretary of State, over 170,000 applications were made for new businesses in 2020. This means that every year, thousands of people are faced with the decision of how to structure their new business endeavor. Business entity selection is an important decision because it affects taxes, liability, and management.

In Ohio, the vast majority of farms are sole proprietorships. This is likely due to the ease of starting and managing a sole proprietorship. With a sole proprietorship, the business and the owner are one and the same, there is not distinct, separate entity. For those new business owners who do want a separate entity, the Limited Liability Company (LLC) is usually the entity of choice. The LLC combines the best attributes of a partnership and corporation. LLCs are a relatively new entity, only gaining popularity in the last 20 years. There are many partnerships and corporations still operating that were set up before LLCs were an available option. The following are a few, general observations regarding new business structures:

- Sole proprietorships are the easiest businesses to start but provide no liability protection and can only have one owner
- LLCs have largely made partnerships obsolete. An LLC can have the same management and tax structure of a partnership but provide liability protection for all the owners
- LLCs are more popular than corporations due to the flexible nature of LLCs. Corporations generally must have a structure of shareholders, directors and officers. LLCs can be structured in almost any way that suits the owners
- LLCs can be taxed as a partnership or corporation
-

Below is a table that provides various characteristics of each type of entity. Review the table to determine which entity might be best for a new business endeavor. Also, be sure to consult with an attorney and tax professional to be sure the new business structure suits the needs and goals of the owner(s) and has the most favorable tax structure.

BUSINESS ENTITY COMPARISON CHART					
	Sole Proprietorship	General Partnership	Limited Partnership	Limited Liability Company	Corporation (Corp.)
Definition	One person owns all the assets, owes all the liabilities, and operates in their personal capacity.	A voluntary association of two or more persons who jointly own and carry on a business for profit.	A partnership with one or more general partners and one or more limited partners.	Statutorily authorized company that is characterized by limited liability and management by members or managers.	Having lawful authority to act as a single person distinct from the shareholders who own it.
Formation	No formal requirements.	No formal requirements.	Filing with the state.	Filing with the state.	Filing with the state.
Governing Documents	None	Partnership agreement.	Articles of Incorporation and partnership agreement.	Articles of organization and operating agreement.	Articles of incorporation and bylaws.
Cost of Creation	None	None or Low	Medium	Medium	High
Owners	Sole proprietor	General partners	General/ Limited partners	Members	Shareholders
Number of Owners	One	Unlimited	Unlimited	Unlimited	Unlimited, except 100 shareholders for S-Corp.
Personal Liabilities of Owners	Unlimited liability for the obligations of the company.	Unlimited liability for partners for obligations of the company.	Unlimited liability for general partners; generally no liability for limited partners.	Generally no liability for members for obligations of company.	Generally no liability for shareholders for obligations of company.
Taxation	Pass-through	Pass-through	Pass-through	Typically pass-through but may elect taxation as a corporation.	Tax at corporation and shareholder level unless S-Corp then shareholder level only.
Applicable Tax Rates	Individual tax rates.	Tax rate of partner.	Tax rate of partner.	Tax rate of partner if taxed as partnership; otherwise, corporation tax rates.	Corporate tax rates for C-Corp.; tax rates of shareholders for S-Corp.
Tax Treatment of Liquidation	No tax.	Generally, no tax.	Generally, no tax.	Generally, no tax if taxed as partnership; will likely be corporate and shareholder level taxes if taxed as corporation.	Generally, will be corporate and shareholder level taxes for C-Corp. tax only at shareholder level for S-Corp.

Water-The Most Important Nutrient

By: Garth Ruff, Beef Cattle Field Specialist, OSU Extension

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2022-38/combine-fire-prevention>

At a recent East Central Grazing Alliance pasture walk in Noble County I was invited to speak on the broad topic of water for livestock. Hopefully by now we all know that water is the most important nutrient for all living organisms and without water, production agriculture today would look very different.

Water Quantity

One of the first discussion points regarding water, is quantity – how much water do we need for animals to perform at optimal levels? Do we have enough flow rate from our source to maintain several animals drinking at once, and is our drinking tank large enough?

Water requirements for beef cattle depend on body weight, stage of production (gestation vs. lactation), and temperature.

Generally, cattle will consume 1 gallon of water per 100 pounds of bodyweight during cooler weather and nearly twice as much on hotter days.

Springs are handy sources of water especially in Eastern Ohio. However often spring developments and drinking troughs are in undesirable locations in our pastures, valleys, or lying wet spots. Even though additional infrastructure is required, consider installing a water holding tank and pumping water to where it is needed. Ideally cattle should not have to travel more than 800 feet to walk to water.

If you have been following along with current events and recent weather patterns, we have been very fortunate to continue to get timely rainfall here in the Eastern Cornbelt. Our farming and ranching colleagues in the western half of the US have not been as fortunate and have had to alter their management practices or cull large numbers of beef cows as this drought lingers on.

Water Quality

We cannot manage what we do not measure. There are several accredited laboratories that regularly test water quality for livestock operations. When evaluating results of a water sample there are several key pieces of information that we should evaluate. At a minimum a water quality analysis for livestock will include total dissolved solids or salinity, pH (acid or alkaline value), nitrates, sulfates.

Sedimentation and Total Dissolved Solids

Extremely poor water quality can have adverse effects on animal performance and health. Water quality often varies depending on source with groundwater often being higher quality than surface water. Surface water is more likely to contain greater amounts of sedimentation due to runoff and erosion.

Occasionally I get asked about levels of salt in water. We measure salinity most often as part of total dissolved solids, TDS. To a degree, cattle seem to adapt to moderately high levels of mineralized water and will often avoid highly concentrated saline water.

Recommendations for livestock water used based on total dissolved solids (TDS). Meehan et. al 2021

**TDS (ppm or
mg/L)**

. Effects of Livestock

<3,000

Usually satisfactory for most livestock

May not cause adverse effects for adult livestock.

3,000-5,000

Should not be consumed by pregnant or lactating females.

Usually a laxative and may result in reduced water intake.

5,000-7,000

Do not use for swine.

Do not use for pregnant or lactating

7,000-10,000

ruminants or horses.

>10,000

May cause brain damage or death

When evaluating water quality TSD isn't the only factor to consider, but if there has been a noticeable reduction in water consumption it maybe a good place to start.

pH

Water pH will indicate acidity or alkalinity. A pH of 7 is neutral with acidic water being less than 7, and alkaline water being greater than 7. Water pH will depend on source and if groundwater, subsoil properties will have a great impact on pH. Limestone ground

water tends to be more neutral or alkaline whereas ground water in proximity to a coal seam may be more acidic.

Nitrates & Sulfates

Nitrates in water are often due to some form of contamination, commercial fertilizer, manure, or decaying organic matter. While water can be a source of nitrate poisoning, forages, especially summer annuals can also be a potential source.

Ruminant animals are more sensitive to high levels of sulfate in water than pigs and poultry. Ideal sulfate levels for cattle are less than 500ppm for growing calves and less than 1,000 ppm for mature cattle.

Elevated sulfur intake can bind copper in the diet. If cattle test deficient for copper, a water sample should be tested for sulfates.

If you have water quality concerns reach out to your local OSU Extension office for testing and sampling information.

Fall Herbicide Applications in Dry Conditions

By: Alyssa Essman

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2022-39/fall-herbicide-applications-dry-conditions>

Dry conditions this fall have led to timely harvest progress in much of the state. As folks start to wrap up, the window for follow up field activities like fall herbicide applications may be longer than in years past. Recent C.O.R.N. articles have covered the benefits of fall herbicide applications: [Our Annual Article to Nag about Fall Herbicides and Cressleaf Groundsel](#), [AVOID A NIGHTMARE NEXT SPRING!!!!!!!](#), [Another Article about Fall Herbicides?!](#). In the 2022 driving survey of late-season weed escapes in soybean, marestail was the second most common species encountered. Fall applications are an essential part of managing marestail and other overwintering species.



Marestail in soybean

The dry pattern this fall may have reduced winter annual weed emergence, and we don't appear to be headed into an overly wet pattern. It's possible that weed populations are low and may not merit a fall application, although there are always more weeds out there than we think. While it's possible any rain through the next month would stimulate additional emergence, colder weather in that time could limit emergence. Evaluation of overall weed emergence and growth at this time could help determine if an application is necessary. In OSU research there has not been a benefit of adding metribuzin or other residual herbicides this late in the fall (exception being chlorimuron which persists into the spring), so treatments at this time should address emerged weeds. Dry weather can also influence efficacy of systemic products like glyphosate and 2,4-D, which work best when applied to weeds that are actively growing. However, the main concern here should be the presence or lack of weeds. OSU research has shown that fall treatments tend to work over a variety of conditions. Although activity is slower, herbicides applied into December are still effective, so the decision about whether to apply this fall can be delayed some.

Where considerable weed populations are present, fall applications are the best way to ensure a clean start next spring. Foliar herbicides are generally most effective when daytime temperatures are in the 50s or higher, and nighttime temps above 40. Applications made in cooler temperatures can result in slower plant death or poor control overall (see comment at end of preceding paragraph). The addition of labeled adjuvants can ensure better herbicide performance in these conditions. The need for a fall application may vary across the state, and from field to field within an operation. Repeated scouting to assess weed emergence and growth following precipitation or frost events can be helpful in making this decision.

2022 Ohio Maple Day

Source: <https://u.osu.edu/vegnetnews/2022/11/01/2022-ohio-maple-day/>

We are fast approaching the date for the **2022 Ohio Maple Day** event. Join us on **Dec. 10th** at Ashland University's John C. Meyer Convocation Center for a jam-packed program on all things maple. Updates on red maple research from both Ohio State's Gabe Karns and the University of Vermont's Proctor Maple Research Center's Abby van den Berg. Add to this other talks on reverse osmosis, marketing, and insects impacting maple trees.

A maple-themed lunch and a vendor room that features a variety of maple equipment dealers, consulting foresters, and other associated equipment help round out the day. There are also SAF continuing education credits available for the program.

You can register [here](#)

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CFAES OHIO STATE UNIVERSITY EXTENSION

2022 Ohio Maple Days

Saturday December 10, 2022
8:30 am - 4 pm

Ashland University Convocation Center
638 Jefferson St., Ashland, OH 44805

Cost: Regular Registration \$45
Vendor Registration \$100

Registration Deadline: December 1, 2022

Online registration:
woodlandstewards.osu.edu

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

Join us December 10th for a one-day event focused on all things maple. There will be a dedicated space for vendors to setup. Learn what is going on in Ohio with maple. Presentations will cover red maples, reverse osmosis, marketing and maple insects. Learn about the maple toolbox and get a 'super sweet' update.

Register at
<http://woodlandstewards.osu.edu>

SAF CEU's - 4 hrs. Cat. 1

2022 Ashtabula County Plat Book Available

The updated 2022 version of the Ashtabula County Plat Book is available for \$25 + tax at Ashtabula County - OSU Extension Office located at 39 Wall Street in Jefferson. This full color edition makes the perfect gift for the hunter, hiker or outdoorsman! Traditional landownership maps by township and range, a landowner index for easy cross referencing, and other county information are all available in the new plat book. Premium wall maps are also available. Visit mappingsolutionsGIS.com for digital versions of Ashtabula County landowner maps. Mapping Solutions is the publisher. Proceeds from the sale of the books benefit the 4-H program.

Limited 2019 books are also available ON SALE for \$10 OFF the original price of \$25 + tax. For more information contact the office at (440) 576-9008.



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COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

Lee Beers

Trumbull County Extension

520 West Main Street

Cortland, OH 44410

330-638-6783

beers.66@osu.edu

trumbull.osu.edu

Andrew Holden

Ashtabula County Extension

39 Wall Street

Jefferson, OH 44047

440-576-9008

holden.155@osu.edu

ashtabula.osu.edu

Angie Arnold

Portage County Extension

705 Oakwood St., Suite 103

Ravenna, OH 44266

330-296-6432

arnold.1143@osu.edu

portage.osu.edu

CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information: <http://os.osu.edu/cfaesdiversity>.

CFAES**DATE:**

November
2nd, 9th, & 16th

TIME:

Starts: 6:30 PM
Ends: 8:30 PM

LOCATION:

Online via Zoom

COST:

\$25 Each
or
\$60 All Three

Register:

GO.OSU.EDU
/FBP22



Ashtabula & Trumbull County Extension Presents

Does it Pencil Out?

Farm Business Planning 101

Whether you are new to farming or just need a refresh on some key farm management topics, look no farther than this Farm Business Planning 101 series. This three-part series will feature a wide range of management topics and offer time for audience participation and questions. Depending on your needs and interest, you may choose any of the programs offered in the series or save and attend all three. Sign up today to secure your spot!

November 2nd

- **Creating A Business Plan** with Andrew Holden - Ashtabula Co
- **Using Enterprise Budgets** with Eric Richer - Fulton County

November 9th

- **LLC's and Liability** with Robert Moore - Attorney – OSU Ag Law Program
- **Intro to Insurance** with Tony Nye - Clinton County

November 16th

- **An Intro to Farm Taxes** with Barry Ward, OSU Income Tax Schools Director
- **Farm Service Agency (FSA) Programs** with Jenna Pollard - County Executive Director for Ashtabula, Geauga, & Lake Co.

To register, visit **WWW.GO.OSU.EDU/FBP22** or **Email: Holden.155@osu.edu**

