CFAES

OHIO STATE UNIVERSITY EXTENSION

# COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES

**October 19 (Edition #169)**




**Coshocton County Extension**
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Hello Coshocton County! Yesterday and today have been a bit misty and cold but the weather forecast looks beautiful for this weekend. The return of nicer weather will be ideal for the 51st Coshocton County Fall Foliage and Farm Tour this weekend.

This year's drive-it-yourself tour will highlight the southwest townships of Virginia, Washington, Pike, Perry, Bedford, and Jackson. This year's featured stops include Wells Sheep Farm, Chalfant Church, Killing Tree Winery, ASB Farm (drive-by), Donaker Farm, Echoing Hill Village, Hidden Spring Farm, Woodbury Wildlife Area and Mill Creek Central Railroad.

A reminder that the map/brochure pick-up location will be the at the Coshocton County fairgrounds located at 707 Kenilworth Avenue in Coshocton. Maps can be picked up from 10:00 a.m. to 3:00 p.m. on Saturday and from 12:00 to 3:00 p.m. on Sunday.

Hope to see many of you on the tour this weekend.

Sincerely,

*David L. Marrison*

Coshocton County OSU Extension ANR Educator

## *Coshocton County Fall Foliage & Farm Tour on October 22-23*

OSU Extension, Coshocton Soil & Water Conservation District, and the USDA Farm Service Agency invite you to participate in the **51st Coshocton County Fall Foliage & Farm Tour** scheduled for Saturday, October 22 and Sunday, October 23. This year's drive-it-yourself tour will highlight the southwest townships of Virginia, Washington, Pike, Perry, Bedford, and Jackson. The tour attracts nearly 1,500 people each year and is a great way to enjoy Coshocton's fall foliage and to visit various farms and businesses.

This year's tour will include stops at sheep, beef, and equine farms as well as stops at Coshocton County's newest winery, a historic church, a new event center, a faith-based camp, and at a 1/8 scale model railroad. The stops will be open on Saturday, October 22 from 10:00 a.m. to 5:00 p.m. and on Sunday, October 23 from 12:00 to 5:00 p.m.

Just a reminder the tour map will not be released until the weekend of the tour. The map pick-up location will be at the Coshocton County fairgrounds located at 707 Kenilworth Avenue in Coshocton. Maps can be picked up from 10:00 a.m. to 3:00 p.m. on Saturday and from 12:00 to 3:00 p.m. on Sunday. More information about the tour can be obtained by calling the Coshocton County Extension office at 740-622-2265. We hope to see many of you on this year's tour!



## *Weather Update: A Winter Preview Before Warmer Weather Returns*

By: Aaron Wilson
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2022-36/weather-update-winter-preview-warmer-weather-returns

**Summary**

A strong cold front brought beneficial rainfall to many areas along and east of about I-71 last week. However, parts of western Ohio missed out on much of the activity, as very dry conditions continue across that part of the Buckeye State. Over the last 30 days, parts of Darke, Preble, Montgomery, Miami, and Shelby Counties have picked up less than 5% of their normal rainfall for this time of year (Figure 1). Dayton, Ohio has seen its second-driest stretch for the last 30 days (0.1”), just behind the record set in 1963 (0.05”). Dry, windy conditions led to several reports of combine and field fires, including a fairly large incident in Darke County. On the flip side, wet conditions continue near Lake Erie in northeast Ohio. Overall, temperatures continue to run below average as well, 1-3°F below average across much of the southern half of Ohio. For the latest up-to-date conditions, seasonal outlooks, and monthly climate summaries, please visit the State Climate Office of Ohio.

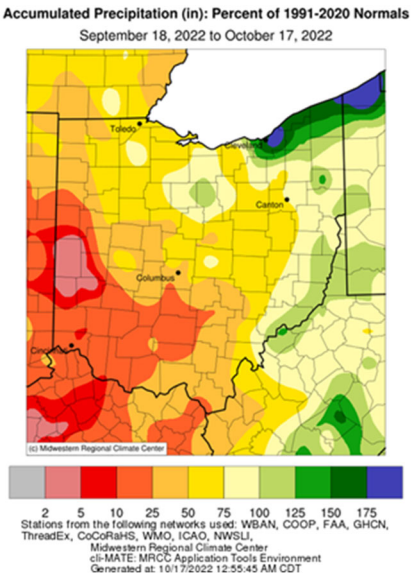


Figure 1). Percent of normal precipitation over the period September 18- October 17, 2022. Figure courtesy of the Midwestern Regional Climate Center

**Forecast**

The first half of this week will be dominated by an upper-level low pressure system that will move through the Great Lakes, bringing with it blustery conditions, cold temperatures (15-20 degrees below normal), and the chance of rain showers mixed with snow at times. Freeze Warnings and Watches are also in effect, as overnight lows through Thursday morning are likely to flirt with or drop below freezing. This will likely end the growing season across the state. Highs through Wednesday are only expected to top out in the mid to upper 40s at best. Conditions will start to improve on Thursday, with sunshine returning and highs in the low to mid 50s. Dry weather is expected to continue on Friday and throughout the upcoming weekend. Southerly flow around high pressure will lift highs back into the 60s and eventually 70s. The Weather Prediction Center is currently forecasting up to 0.50” of precipitation across Ohio this week, with locally heavier amounts downwind of Lake Erie (Figure 2).

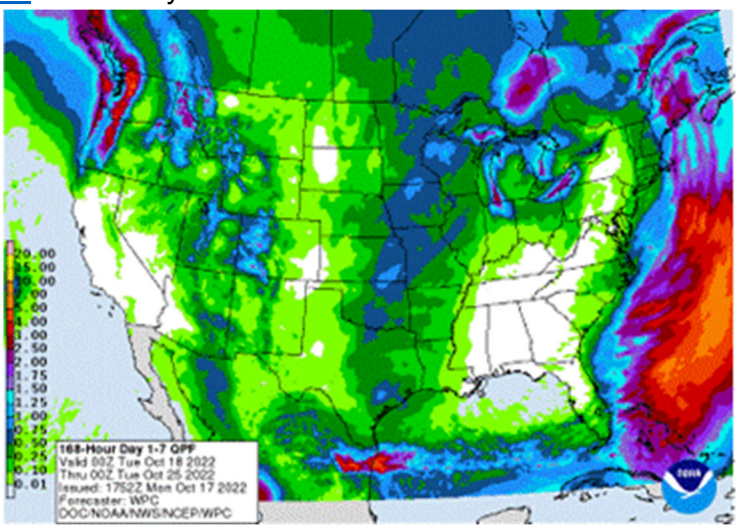


Figure 2). Precipitation forecast from the Weather Prediction Center for 8pm Monday October 18 – 8pm Monday October 25, 2022.

The Climate Prediction Center’s 6–10-day outlook for the period of October 23 - 27, 2022 and the 16-Day Rainfall Outlook from NOAA/NWS/Ohio River Forecast Center show a major weather pattern shift, with above normal temperatures likely and precipitation near or leaning above average (Figure 3). Climate averages include a high-temperature range of 61-65°F, a low-temperature range of 41-44°F, and average weekly total precipitation of 0.55-0.75 inches.

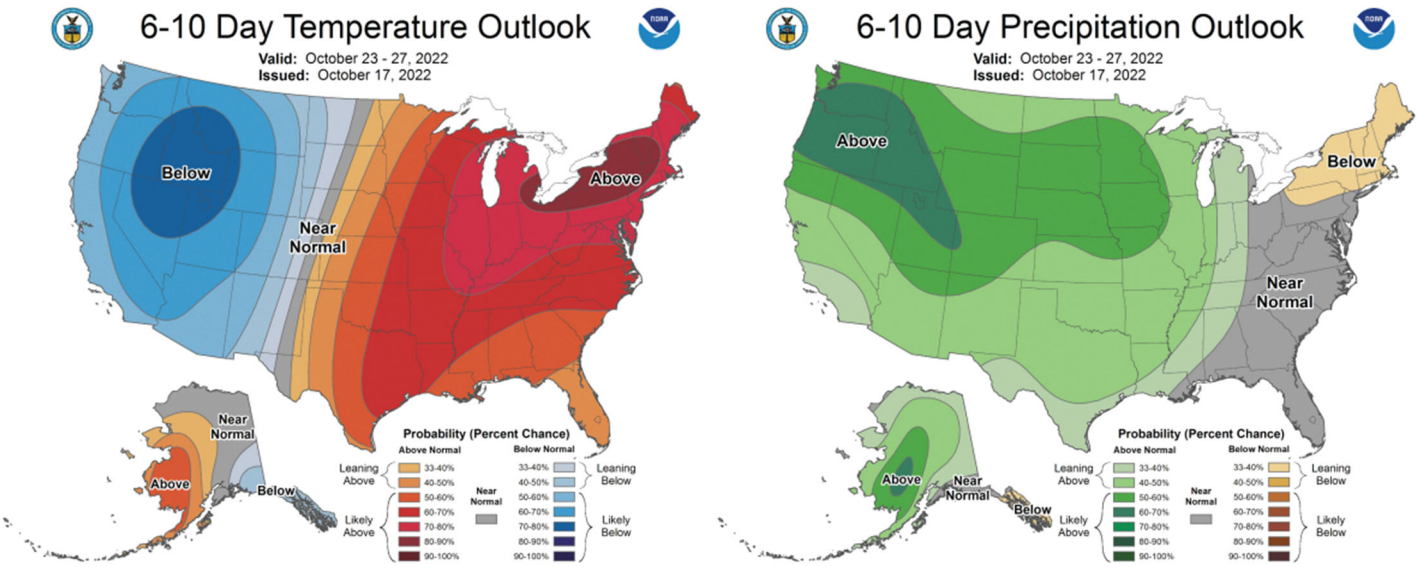


Figure 3) Climate Prediction Center 6-10 Day Outlook valid for October 23 – 27, 2022, for left) temperatures and right) precipitation. Colors represent the probability of below, normal, or above normal conditions.

## *Watch for Potential Frost Damage to Non-Mature Corn*

By: Osler Ortez, Aaron Wilson, & Alexander Lindsey
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2022-36/watch-potential-frost-damage-non-mature-corn

In Ohio, October usually brings our first fall freeze. On October 11, USDA reported that 15% of Ohio's corn grain had been harvested (week ending 10/09/2022, full report here). In the same report, 96% of corn was at the dented stage, and 71% was mature. With additional sub-freezing temperatures possible this week, the potential for yield losses due to frost damage exists for any standing crop that has not matured yet (i.e., not reached physiological maturity).

Sub-freezing temperatures (<32°F) were reported at numerous sites across the state during the early morning hours of October 8-9. This includes the Western Research station (located in Clark County, Ohio), as documented by the CFAES Ag Weather System. Temperatures that can cause frost damage to non-mature corn are:

- Temperatures close to 32°F for a few hours
- Temperatures close to 28°F for a few minutes

At Western, the air temperature dropped below 32°F for more than 6 hours over the two nights, with more than 2 hours spent below 30°F. What damage can one expect from freezing conditions on a standing crop that has not yet matured?

Frost damage symptoms to corn are shown in Figure 1. These symptoms can be seen a few days after freezing takes place. However, it is recommended to wait 5-7 days to assess the damage and have a clearer view of what was damaged by frost versus what was not. Premature assessments have the risk of underestimating the magnitude of damage and loss.

Figure 1. Non-mature frost-damaged corn. Pictures: Jenny Rees, University of Nebraska, 2022.

Research has estimated yield losses in corn (Table 1, using 80- and 105-day hybrids); Afuakwa and Crookston (1984) reported:

**Early dent stage (R5):** if leaves and stalks are frost damaged, a 40% yield loss can result. If only leaves are frost damaged, a 25% yield loss can result.

**Half milk-line stage (R5.5):** if leaves and stalks are damaged, a 12% yield loss was observed. If only leaves were damaged, a 5% yield loss was observed.

Table 1. Potential grain yield losses after frost. Adapted from Afuakwa and Crookston (1984).

| Corn Development Stage | Killing frost (Leaves and stalk) | Light frost (Leaves only) |
|---|---|---|
| | percent of yield loss (%) | |
| R4 (Dough stage) | 55 | 35 |
| R5 (Dent stage) | 40 | 25 |
| R5.5 (Half milk line) | 12 | 5 |
| R6 (Physiological Maturity) | 0 | 0 |

In a corn crop with frost damage, a black (or brown) layer will eventually form on the kernels when there is no more movement of nutrients. Frost damage corn can result in lower test weight, sometimes called chaffy ears. Low test weights can reduce storage life; additional steps can be taken to minimize further losses (e.g., more/better aeration, gentle drying, careful and timely handling). Kernels undergoing the natural maturation process will contract and harden their coat after maturity, but this process can be disrupted by early death. The coats may be more prone to breakage and could produce more fines during harvest from broken kernels.

Due to the premature disruption to proper crop growth and development, early terminated corn will have higher kernel moisture content and take longer to dry, partly due to natural senescence being disrupted and disrupted husk leaf maturation. Ears with loose husks dry more rapidly than those with tight or normal husks; forced death from cold can impede the natural senescence process of husk leaves. Plans for grain drying and delivery should account for that extra time.

Besides low temperatures, situations that can be conducive to frost damage include fields that were planted (or replanted) late and fields that were planted to longer or full-season hybrids. If frost damage is a concern, consider to:

1) monitor crop standability
2) scout for stalk rots
3) watch for the potential of ear drop

If the latter is happening, one may need to consider harvesting the field earlier (although at higher moisture) and explore alternative market opportunities if necessary.

**Resources**


- Afuakwa, J.J., and R.K. Crookston. 1984. Using the kernel milk line to visually monitor grain maturity in maize. Crop Sci. 24:687-691. https://doi.org/10.2135/cropsci1984.0011183X002400040015x
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Journal 68:452-455. https://doi.org/10.2134/agronj1976.00021962006800030004x
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## *Fall Sprayer Maintenance*

By: Erdal Ozkan
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2022-36/fall-sprayer-maintenance


Proper winterizing and storing your sprayer now help you mitigate costly problems in the spring

It is very likely that you will not be using your sprayer again until next spring. If you want to avoid potential problems and save yourself from frustration and major headaches next spring, you will be wise to give your sprayer a little bit of TLC (Tender Loving Care) this time of the year. Yes, there may be still crop to be harvested, and you may still be a busy time of the year for some of you. However, do not forget about winterizing your sprayer. Do not delay it too long, if you already have not done so. You don't want a pump that is cracked and/or not working at its full capacity because you did not properly winterize it before the temperature falls below freezing. Here are some important things you need to do with your sprayer this time of the year.

**Rinsing**

It is very likely that you did the right thing when you used the sprayer the last time: you rinsed the whole system (tank, hoses, filters, nozzles) thoroughly. If you did not, make sure this is done before storing the sprayer. A sprayer that is not rinsed thoroughly after each use, and especially after the spraying season is over, may lead to cross-contamination of products applied for different crops next spring. Pay even more attention to avoid cross-contamination problems that may result in serious crop injury if you are using some of the new 2,4-D and Dicamba herbicides. Another problem that may result from lack of, or insufficient rinsing of the complete sprayer parts is clogged nozzles. Once the nozzles are clogged, and they remain in that condition a long time, it is extremely difficult to bring them back to their normal operating conditions you expect from a comparable clean nozzle. Leaving chemical residues in nozzles will usually lead to changes in their flow rates, as well as in their spray patterns resulting in uneven distribution of chemicals on the target.

Depending on the tank, proper rinsing of the interior of the tank could be easy or challenging. It will be very easy if the tank is relatively new and is equipped with special rinsing nozzles and mechanism inside the tank. If this is not the case, manual rinsing of the tank interior is more difficult, and poses some safety problems such as inhaling fumes of leftover chemicals during the rinsing process. To avoid these problems, either replace the tank with one that has the interior rinse nozzles, or install an interior tank rinse system in your existing tank. For effective rinsing of all the sprayer components, circulate clean water through the whole sprayer parts several minutes first with the nozzles off, then flush out the rinsate through the nozzles. Rinsing should be done preferably in the field, or on a concrete chemical mixing/loading pad with a sump to recover rinse water. Regardless, dispose of the rinsate according to what is recommended on the labels of the pesticides you have used. Always check the label for specific instructions. However, most labels recommend following procedure: If rinsing is done on a concrete rinse pad with a sump, put the rinsate collected in the sump back in the tank, dilute it with water and spray it in the field where there is no potential for the rinsate to reach ditches and other

water bodies nearby. If the rinsing is done in the field, make sure you are not flushing out the rinsate in the system in one area. It is best to further dilute the rinse water in the tank and, spray it on the field on areas where there is no potential for the rinsate to reach ditches and other water bodies nearby.

**Cleaning**

Rinsing the system with water as explained above may not be sufficient to get rid of chemicals from the sprayer. This may lead to cross-contamination problems. Residues of some pesticides left in the sprayer may cause serious problems when a spray mixture containing these residual materials is applied on a crop that is highly sensitive to that pesticide. To avoid such problems, it is best to clean and rinse the entire spraying system with some sort of a cleaning solution. Usually, a mixture of 1 to 100 of household ammonia to water should be adequate for cleaning the tank, but you may first need to clean the tank with a mixture containing detergent if tank was not cleaned weeks ago, right after the last spraying job was done. Some chemicals require specific rinsing solution. There is an excellent Extension Publication from University of Missouri which lists many commonly used pesticides and the specific rinsing solutions required for them. It is available online. Check it out (http://extension.missouri.edu/p/G4852). However, you should always check the product label to find out the most recent recommendations on cleaning agents.

Cleaning the outside of the sprayer components deserves equal attention. Remove compacted deposits with a bristle brush. Then flush the exterior parts of the equipment with water. A high-pressure washer can be used, if available. Wash the exterior of the equipment either in the field away from ditches and water sources nearby, or a specially constructed concrete rinse pad with a sump. Again, the rinsate should be disposed of according to the label recommendations. As I mentioned earlier, most labels recommend the same practice: put the rinsate collected in the sump back in the tank, dilute it with water and spray it in the field where there is no potential for the rinsate to reach ditches and other water bodies nearby.

**Winterizing**

Check one more time to make sure there is no liquid left inside any of the sprayer parts to prevent freezing. Especially the pump, the heart of a sprayer, requires special care. You don't want a pump that is cracked and/or not working at its full capacity because you did not properly winterize it before the temperature falls below freezing. After draining the water, add a small amount of oil, and rotate the pump four or five revolutions by hand to completely coat interior surfaces. Make sure that this oil is not going to damage rubber rollers in a roller pump or rubber parts in a diaphragm pump. Check the operator's manual. If oil is not recommended, pouring one tablespoon of radiator rust inhibitor in the inlet and outlet part of the pump also keeps the pump from corroding. Another alternative is to put automotive antifreeze with rust inhibitor in the pump and other sprayer parts. This also protects against corrosion and prevents freezing in case all the water is not drained. To prevent corrosion, remove nozzle tips and strainers, dry them, and store them in a dry place. Putting them in a can of light oil such as diesel fuel or kerosene is another option.

**Storage**

Find ways to protect your sprayer against the harmful effects of snow, rain, sun, and strong winds. Moisture in the air, whether from snow, rain, or soil, rusts metal parts of unprotected equipment of any kind. This is especially true for a sprayer, because there are all kinds of hoses, rubber gaskets and plastic pieces all around a sprayer. Yes, the sun usually helps reduce moisture in the air, but it also causes damage. Ultraviolet light softens and weakens rubber materials such as hoses and tires and degrades some tank materials. The best protection from the environment is to store sprayers in a dry building. Storing sprayers in a building also gives you a chance to work on them any time during the off-season regardless of weather. If storing in a building is not possible, try covering the sprayer with some material that will protect it from sun, rain and snow. When storing trailer-type sprayers, put blocks under the frame or axle and reduce tire pressure during storage. Finally, check the condition of all sprayer parts one more time before leaving the sprayer behind. Identify the parts that may need to be worked on, or replaced. Check the tank, and hoses to make sure there are no signs of cracks starting to take place. Check the painted parts of the sprayer for scratched spots. Touch up these areas with paint to eliminate corrosion. By the way, don't forget to cover openings so that birds don't make a nest somewhere in your sprayer, and insects, dirt, and other foreign material cannot get into the system.

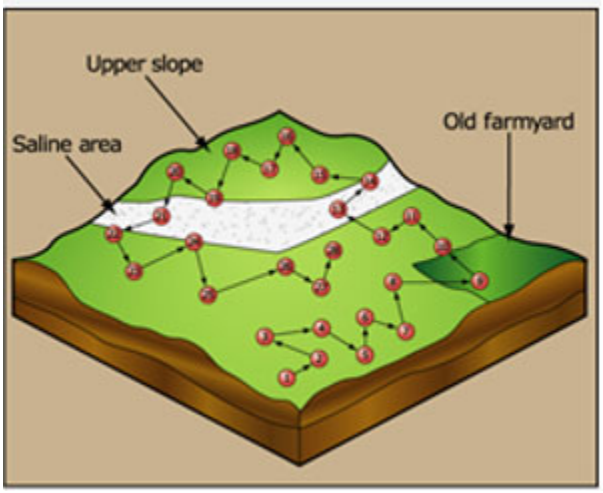
## *Now is Time to Evaluate Pasture Fertility and Lime Needs*

By: Chris Zoller, Extension Educator, ANR, Tuscarawas County
Printed for Farm and Dairy, October 20 Edition

Cooler temperatures, shorter days, and trees filled with bright colored leaves translate into slower grass growth and reduced forage mass for grazing. I've talked with several farmers in the last few weeks asking questions about fertilizing and liming pastures, especially with input costs expected to increase. Fall is an ideal time to collect soil samples to evaluate nutrient levels and develop a management plan.

**Begin with a Soil Sample**

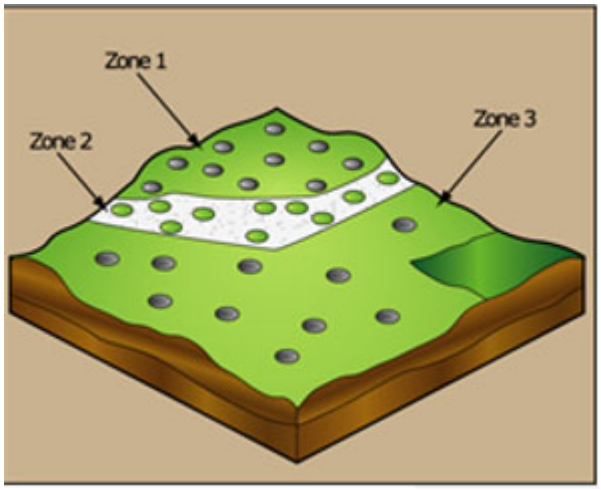
The purpose of collecting soil samples is to determine the nutrient and pH levels of a given field. Because only a few grams of soil are used by the lab for analysis, following a proper sampling procedure is critical. While it is a relatively easy process, there are a few things to consider prior to starting, including:




- Past cropping and nutrient management practices in the field
- Plant growth differences
- Topography, drainage, differing soil types with the field
- Limit sampling area to no more than 25 acres
- Collect 10 – 20 cores per sample area

The figure below is an example of whole field soil sampling. Note the items (old farmstead, changes in topography, saline area, drainage, differing soil type) that may have great variability and skew sample results if each core sample is combined to form one composite sample of the field.

A better way to sample a field (especially those with unique characteristics like those described above) is using zones, as shown in Figure 2 below. Zone sampling helps account for variations in a field and provides a truer picture of the fertility and lime needs within the field.




When using zone sampling, follow a zigzag pattern, randomly taking 10-20 core samples per sample area up to 25 acres. In the example below, three different samples would be submitted to the lab for analysis, with recommendations provided for each zone.

**Submitting Soil Samples**

Once collected, it's time to send your samples to a soil testing laboratory. Your agronomist or Extension professional can assist you with locating a lab in your area. The lab will provide you with fertilizer and lime recommendations based on several factors, including crop, yield goal, soil nutrient levels, and soil pH. If you have questions about the results, your agronomist or Extension Educator are great resources.

**Lime**

Because surface applied lime moves slowly through the soil profile, this is an excellent time of year to make applications to fields that need soil pH adjusted. The lime recommendation is calculated by the lab based on the sample you submitted. Important considerations:

- Not all lime is created equal – ask for an analysis of the liming product.

- Liming materials are labeled based on Effective Neutralizing Power (ENP), with ag lime as the base and an ENP of 2,000 pounds per ton. Anything below this standard will require a greater application rate.
- When evaluating whether to spend money on lime or fertilizer, don't shy away from the lime. Forage plants growing in a soil with a low pH will not efficiently utilize the fertilizer applied.

**Additional Information**
Talk with your agronomist or Extension Educator with questions about soil sampling, fertilizer and lime recommendations, and other management topics. The following OSU Extension resources may be useful:

- Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat, and Alfalfa (https://agcrops.osu.edu/FertilityResources/tri-state_info)
- Ohio Agronomy Guide (https://stepupsoy.osu.edu/sites/hcs-soy/files/472%20Ohio%20Agronomy%20Guide%2015%20Ed%20red_0.pdf)
- Understanding Value in Lime (https://ohioline.osu.edu/factsheet/anr-9)
- Soil Sampling to Develop Nutrient Recommendations (https://ohioline.osu.edu/factsheet/AGF-513)

## *Ohio's Right to Farm Law Helps with Neighbor Nuisance Complaints*

By: Peggy Kirk Hall, Associate Professor, Agricultural & Resource Law
Source: https://farmoffice.osu.edu/blog/thu-10132022-1141am/ohio%E2%80%99s-right-farm-law-helps-neighbor-nuisance-complaints

Fall harvest is a time of year when we hear complaints from neighbors and community residents about what we do in agriculture. Dust, grain bin dryers, equipment taking up the road, working late into the night or early in the morning ... these are the inconveniences of living in an agricultural area. But when do these activities become legally problematic as a "nuisance" to neighbors and others? Not often, due to Ohio's Right to Farm Law. Even so, the Right to Farm Law expects us to conduct our agricultural activities according to regulations and practices that may reduce the nuisance impacts of farming, and it gives us nuisance protection when we do so.

Enacted in 1982, Ohio's Right to Farm Law offers a nuisance defense for farming activities under certain conditions. Ohio was one of many states that passed a Right to Farm Law in the 1980s after the highly publicized Arizona case of Spur Industries v. Del E. Webb. In that case, the developer of a retirement community in Arizona sought to shut down a cattle feedlot that it claimed was a nuisance to its community residents. But the Arizona Supreme Court noted that the developer "came to the nuisance," making the previously existing feedlot activities a nuisance only because the developer chose to locate residences near the feedlot, in an agricultural area.

Ohio adopted this "coming to the nuisance" approach in its Right to Farm Law soon after the Spur Industries case. The law's intent is to protect agricultural landowners from nuisance claims made by those who move into an existing agricultural area and later complain about the agricultural activities occurring in the area. If faced with a nuisance complaint by someone who "came to the nuisance," an agricultural landowner can use the Right to Farm Law as a defense against the complaint.

**How the Right to Farm Law works**
The Right to Farm Law has three requirements a landowner must meet to use the law as a defense against a nuisance claim.

1. The agricultural activities that are the source of the nuisance complaint must be on qualifying land, which includes:
    a. Land enrolled with the county auditor as "agricultural district land," (which is not a zoning designation) or

b. Land “devoted exclusively to agricultural use” under Ohio’s Current Agricultural Use Valuation law.

   Both of these provisions establish the same criteria for the land: it must be either ten acres or more of land devoted to commercial agricultural production, or if less than ten acres and devoted to commercial agricultural production, it must generate a gross average annual income of $2500. Certain land devoted to bioenergy, biomass, methane, or electric or heat energy production also qualifies, if contiguous to other qualifying land, as can land under government conservation and land retirement programs.

   Early versions of the Right to Farm Law required that the land be enrolled in the “agricultural district program” with the county auditor, not to be confused with having a zoning designation of agricultural district. But changes to the law removed the enrollment requirement, allowing nuisance protection even if the landowner has not enrolled land in that program.

2. The agricultural activities were established prior to the plaintiff's activities or interest on which the action is based.
   This is the “coming to the nuisance” timing element. The agricultural activities must have been in the area first, before the person complaining of a nuisance came to the area.

3. The agricultural activities were not in conflict with federal, state, and local laws and rules relating to the alleged nuisance or were conducted in accordance with generally accepted agriculture practices.

   The intent of the law is to protect “good operators” who follow legal requirements or generally accepted agricultural practices for the agricultural activity that is the source of the complaint. An operator who disregards law, regulations, and acceptable practices that apply to the agricultural activity loses the nuisance protection.

**What are “agricultural activities”?**
We often receive questions about the kinds of activities the law covers, or whether the protection applies if a farmer changes or expands an operation. The Right to Farm Law answers these questions with the following:

"Agricultural activities" means common agricultural practices, including all of the following:

(1) The cultivation of crops or changing crop rotation;
(2) Raising of livestock or changing the species of livestock raised;
(3) Entering into and operating under a livestock contract;
(4) The storage and application of commercial fertilizer;
(5) The storage and application of manure;
(6) The storage and application of pesticides and other chemicals commonly used in agriculture;
(7) A change in corporate structure or ownership;
(8) An expansion, contraction, or change in operations;
(9) Any agricultural practice that is acceptable by local custom.

**What if a farmer is threatened with a nuisance claim?**
A few steps can help a farmer deal with a threatened nuisance claim.

- Document the activity or area that is the source of the complaint with pictures, videos, notes, weather conditions, etc.
- Review the situation to determine if there are additional management practices that could reduce any future nuisance impacts of the activity.
- If the person takes legal action, notify your property insurance provider. Your insurer will need to be aware of potential litigation because if the issue is one that relates to your insured activities, your insurer will defend you in a lawsuit.
- Consider educating the person about your farming practices and the Right to Farm law. Share articles

like this one, or have an agricultural attorney draft a letter explaining the law. A person might not pursue a claim after understanding the activities or realizing that the Right to Farm Law would likely dismiss the claim.

**Don't forget the good neighbor part**
Although Ohio farmers have the Right to Farm Law as a defense against nuisance claims, it's still good practice to be aware of how our farming activities affect neighbors. While the law recognizes that we can't remove all of the dust, noise, road use, and odors of farming, it does expect us to be "good operators." Being a good operator and instituting practices that can reduce nuisance impacts is the first line of defense against the potential of a neighbor nuisance claim.

Read the Ohio Right to Farm Law's "defense to a civil action for nuisance" at Ohio Revised Code Section 929.04.

## *Beef - Potential in the Fall?*

By: Garth Ruff, Beef Cattle Field Specialist, OSU Extension
Source: https://u.osu.edu/beef/2022/10/19/potential-in-the-fall/#more-13416

Fall is my favorite time of the year, hay making is done, the feeder cattle are being marketed, college football is in full swing, and for some calving season is well underway.

This summer at our field day in Muskingum County we heard from a family who discussed incorporating a fall calving cow herd into their beef operation. While there are disadvantages to fall calving (will discuss), there are several advantages that can be capitalized on if we can evaluate and adapt current production systems. In other publications, I have previously mentioned the virtues of a fall calving system here in the Eastern Corn Belt. Let's look at how fall calving can be a viable and profitable system.

**Cattle prices are seasonal**. As with most things in agriculture, supply and demand has a great impact on prices. Dr. Andrew Griffith from the University of Tennessee in 2017 analyzed several studies comparing spring and fall calving systems. After comparing the systems on a 205-day weaning age and two separate feed resource scenarios they concluded that even though spring-calving cows had heavier calves at weaning and lower feed costs than the fall-calving cows, the higher prices of steer and heifer calves captured by fall-born calves were able to cover the higher feed expenses and lighter weaning weights by the fall-born calves.
In the fall of the year, when most of the weaned spring-born calves are marketed, supply is plentiful for order buyers to fill their feedlot orders. This increased supply contributes to our annual average low in feeder cattle prices.

During the spring when there is demand for stocker calves to graze both in the plains, south, and grass here locally, prices on a per cwt basis are significantly higher due to a tighter supply of calves. That smaller supply of fall born calves contributes to seasonality of the markets and our annual high for stocker cattle.
Don't forget that the cull markets are seasonal as well. Griffiths also looked at Tennessee cull cow prices from 1990-2013 demonstrated that fall calving culls sold in April and May were valued on average $8-9 cwt higher than spring calving culls sold in September or October.

**Mud** –As rainfall patterns shift here in Ohio and the rest of the eastern Cornbelt, indications are that our springs are going to be warmer and wetter over time. I think we can attest to that if recent memory serves us well.

As mud becomes more of an issue, especially in the last trimester of gestation for a beef cow. Research conducted at the Ohio State University Eastern Ag Research Station has shown suggests that a cow in muddy conditions requires an additional 1.8 Mcal Net Energy/day or 2.5 lbs. of corn to maintain adequate body condition as demonstrated by Dr. Kirsten Nickles.

Not only does mud have an impact on cow body condition, management and feeding also become a challenge when excessive muddy conditions persist. Fall calving in September to mid-October, when soil conditions are, on average drier, can be one method to reduce the impacts of mud on cow performance.

**Management Considerations** – Historically, one of the biggest drawbacks to fall calving has been the increased cost to feed and maintain a lactating cow over winter. As acknowledged previously, that feed cost can be in most years offset by higher calf values in the spring of the year.

In the past couple of years, hay quality and quantity has been a limiting factor for some cattlemen. If forage is a at a premium and cow condition is being compromised with fall calving cows why not consider reducing the caloric needs of the cow by ending lactation around 120 days of age?

In addition to improving management of available forage. We can also better manage calf performance once they are weaned. Weaned calves can be fed a grower ration until marketing later in the spring. In an early weaning system, there is a transfer in feed cost from the cow to the calf. Do not over feed early weaned calves. The goal is to have calves that are healthy, "green", and not over conditioned when turned out to graze. Whether or not higher spring calf values will offset higher calf nutrition and management costs is something to think about given current feed costs.

**Final Thoughts** – Having a defined calving season is better than none at all. What works in other parts of the country may or may not work for your herd, however it always good to evaluate various management systems and current on farm practices.

## *Five Things to Do to Improve the Efficiency of Winter Feeding This Year*

By: Dr. Katie VanValin, Assistant Professor Beef Nutrition, University of Kentucky
Source: https://u.osu.edu/beef/2022/10/19/five-things-to-do-to-improve-the-efficiency-of-winter-feeding-this-year/

Undoubtedly, 2022 has had its fair share of challenges thus far. High input prices likely led to fewer hay acres being fertilized, which with the added pressure of drought, can lead to lower quality and quantity of stored forages moving into this winter. You might be in for sticker shock if you haven't purchased feed recently. It can be easy to get caught up in things we have little to no control over, so here are five things we can do to improve this year's winter-feeding program.

**Body condition score the herd:** Calves should be weaned from the spring calving cows (or will be very soon). It's easy to get caught up focusing on the weaning weight of the calves or managing a pre-conditioning program but don't forget about the cows. Now is the time to assess the body condition score of the herd. Spring calving cows will have their lowest nutrient requirements of the entire year shortly after weaning the calf. Now is the time to efficiently add condition to thin cows to set them up for success during the 2023 breeding season. Sorting cows by body condition score can allow for more efficient herd management and for those thin cows to receive the extra nutrition they require without overfeeding them in adequate condition. It is much more challenging to add condition to cows as they approach calving or have a calf at side. The ideal body condition score for mature cows is 5, while targeting younger females to a BCS 6 can ensure they have the extra condition required to meet their additional nutrient requirements for supporting growth.

**Test your hay:** This is something we always recommend, but in years like 2022, this becomes even more important. Hay tests provide valuable information about the energy and protein concentrations in the sample. All lots of hay should be tested, and a lot is defined as hay harvested from the same field on the same day and stored under the same conditions. Testing all lots of hay allows producers to match lots of hay to the herd so that the lowest quality hay is being fed when the cows' nutrient requirements are the lowest while saving the best quality hay for when nutrient requirements are their highest. Feeding the right hay to the right cow at the right time can drastically decrease the amount of supplement required to maintain body condition.

**Evaluate supplement costs:** At some point throughout the year, some supplementation is likely required to meet the energy and protein requirements of the herd. Using hay test results can help determine the most efficient supplement to match the energy and protein deficits in the hay. The University of Kentucky Forage Supplement tool is a simple-to-use online tool that provides recommendations for supplementation based on hay test results. Also, reach out to your local county extension agent or nutritionist to assist in interpreting hay test results. Now is the time to sharpen the pencil and determine which supplement options will be the most economical to pair with available forage. Remember, the feed that was the most economical last year may not be the most economical choice this year. Just because one feed costs more on a $/Ton basis does not mean it is the most expensive supplement to feed. The amount of a particular supplement required must also be considered.

**Feed hay efficiently**: Regardless of quality, when the quantity of hay is tight, available hay stores must be fed efficiently. Research has shown that feeding hay in a hay ring prevents feeding waste, especially rings that contain a solid skirted bottom. Hay feeding pads and fence line feeders can also reduce hay feeding losses. While these measures will not completely reduce hay feeding losses, these losses can be reduced from 45% to as little as 6% by using hay rings. Moving hay rings or utilizing bale grazing can help to limit trampling damage around these hay feeding sites and help to distribute manure evenly across the feeding area.

**Stockpiling forages:** Although nitrogen application can increase the amount of stockpiled forage available to graze during the winter, tall fescue can still stockpile even without a nitrogen application. Closing off certain fields during the fall growing season can allow the forages in these fields to stockpile, which can then be grazed during the late fall and early winter. While the nutrient quality of stockpiled fescue declines over time, nutrient content can remain adequate for supporting dry cows. Consider setting up a simple strip grazing system using temporary electric fencing to prevent trampling losses when turning cattle out on stockpiled forages.

Contact your local county extension office for more information about establishing an effective and efficient winter-feeding program.

## *COLA – But Not The Drinkable Kind*

By: Emily Marrison, Extension Educator, Family and Consumer Sciences, Ohio State University Extension
Written for the Coshocton Tribune- October 16, 2022.

Cost of living has been in the news a lot this week. The federal government announced on Thursday that Social Security benefits will increase by 8.7% in 2023. This is the largest, single increase for the cost of living adjustment (COLA) since 1981.

Not everyone, of course, is receiving Social Security benefits, but it does equate to about 70 million Americans. Often, the private sector will use this COLA as a reference when determining their own increase to wages. According to the Social Security Administration, the purpose of the COLA is to “ensure that the purchasing power of Social Security and Supplemental Security Income (SSI) benefits is not eroded by inflation.” This adjustment is based on the percentage increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

This information is collected by the US Bureau of Labor Statistics. The CPI-W is measured monthly and looks at the prices paid by urban wage earners and clerical workers for a market basket of consumer goods and services. I was intrigued. Who are these urban wage earners and clerical workers and what exactly is this basket of goods and services?

Currently, urban wage earners and clerical workers make up about 29% of the US population. More than half their household income must come from wage or clerical occupations, and they must have worked at least 37 weeks during the past 12 months. Information is also collected for all urban consumers, but only this subset is used to calculate COLA. Interesting that people in rural nonmetropolitan areas, farming families, and people in the Armed Forces are not included in this data.

This market basket of consumer goods and services includes prices of food, clothing, shelter, fuels, transportation, doctors' and dentists' services, drugs, and other goods and services that people buy for day-to-day living. A variety of methods are used to obtain these prices including personal visits, telephone calls, or web collection by the Bureau's trained representatives.

When I teach the “Real Money. Real World.” financial literacy program in our local high schools and career center, we discuss cost of living as well as the purpose of Social Security. The youth have a pretty strong concept that cost of living is not the same across the board. That living in an urban area is almost always going to cost more than living in a rural area.

However, some surprising data is showing that inflation is increasing at a higher rate in rural areas than in urban. Dr. David Peters, an Iowa State University Extension specialist, found that over the past two years, rural households have experienced 18.5% inflation, whereas urban dwellers have seen an increase of 14.5% on average.

I wonder if there will ever be a different consideration in calculating COLA for rural residents compared to urban residents given this information. US Census data shows that 14% of the US population lives in rural areas, though rural areas make up 97% of the land area. My guess is that it is more challenging and a lot less convenient to collect data about goods and services in rural areas than in urban.

One thing that can help everyone reduce their expenses is to get a handle on spending leaks. These are those seemingly small expenses that we barely notice at the time but can really add up as they become established habits. For tips on reducing spending leaks visit https://go.osu.edu/spendingleaks .

Today I’ll leave you with this quote from Tim Costello, “We've confused the cost of lifestyle with the cost of living. We've lost our perspective.”

## *Beginner & Small Farm College in Coshocton*

Source: https://u.osu.edu/ohioagmanager/2022/09/18/osu-extension-offering-beginner-small-farm-college-in-coshocton-and-greene-counties/

The Extension offices in Coshocton and Greene counties will be hosting the **2022 Beginner & Small Farm College** on October 24, 31 and November 7 from 6:30 to 9:00 p.m. This college is designed to help landowners examine potential ways to increase profits on their small acreage properties. The program is open to all new or aspiring farmers, new rural landowners, small farmers, and farm families.

During this college, participants will be challenged to develop realistic expectations for their new farm business. They will receive information on getting started, identifying the strengths and weaknesses of their property, and developing a farm business plan. Information on farm finances, insurance, liability, labor and marketing will be covered during the college. The topics included in this workshop include:

**October 24th-Getting Started on Your New Farm Business**

- Developing real-life expectations for your farm.
- Examining the available resources and opportunities for your property.
- Developing a farm business plan, including setting your family and farm mission, goals and objectives.
- An introduction to marketing and selling agricultural products.

**October 31st–Money, Money, Money! Managing your Farm Finances**

- Developing a family and farm balance sheet.
- Using enterprise budgets to project farm income.
- Recordkeeping for farm businesses and farm taxes.
- Managing family and farm income and expenses.

**November 7th–There's More to Farming than Just Growing Stuff!**

- Farm Management for New Farms
- Setting up your farm business, including choosing a business entity and obtaining employer identification numbers.
- Farm taxes.
- Obtaining farm financing.
- Insurance and liability for farms.
- Licenses and permits needed for a small farm business.
- Employer responsibilities related to farm labor and labor laws.

**Farm Tour (Date & Location TBD)**
Each site host will be planning a farm tour so participants can visit with a successful local farming operation to learn how they started and what they have learned during the development of their farm business.

**Registration:** The cost is $30 for the first person and $15 for each additional. Registration is limited to the first 50 registrants per location. **Registration deadline is October 21.** There are two methods to register for this college. Registration on-line can be made at: go.osu.edu/smallfarmcollegereg Registration can also be made by mailing in a registration form to the site host for the location you plan to attend.

Mail Registrations for Coshocton County Site to:
OSU Extension –Coshocton County
c/o David Marrison
724 South 7thStreet, Room 110
Coshocton, OH 43812

Mail Registrations for Greene County Site to:
OSU Extension –Greene County
c/o Trevor Corboy
100 Fairground Road
Xenia, OH 45385

**More Information:**
For more information contact David Marrison at marrison.2@osu.edu or (740) 722-6073

CFAES

OHIO STATE UNIVERSITY EXTENSION

# BEEF QUALITY ASSURANCE

## *Re-certification Trainings for Livestock Producers*

Coshocton County will be hosting two Beef Quality Assurance re-certification programs to allow beef and dairy producers to re-certify their beef quality assurance during the fall of 2022. Pre-registration is required for each session as space is limited.

**Sessions Will Be Held:**

Monday, October 10, 2022

or

Wednesday, November 16, 2022

7:00 to 8:30 p.m.

Coshocton County Services Building
724 South 7th Street - Room 145, Coshocton, OH 43812

Seating is limited, so please RSVP
Register by calling: 740-622-2265

Other Sessions are being offered in neighboring counties or can be completed on-line anytime at bqa.org.

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

**COSHOCTON COUNTY EXTENSION**

## Registration Information

Limited to the first 50 registrants per location.
Registration deadline is October 17th.

**Cost: $30 for the first person and $15 for each additional person.**

**Two methods to register:**

**1) Online with a credit card**
Go to go.osu.edu/smallfarmcollegereg or use the QR code found in this brochure.

**2) Complete the registration form and mail it with a check to the site host for the location you plan to attend.**

Coshocton County
OSU Extension – Coshocton County
c/o David Marrison
724 South 7th Street, Room 110
Coshocton, OH 43812

Greene County
OSU Extension – Greene County
c/o Trevor Corboy
100 Fairground Road
Xenia, OH 45385

## 2022 College Locations

**Coshocton County**
Roscoe Village Visitor's Center
Lock Landing Meeting Room
600 N. Whitewoman Street
Coshocton, OH 43812
Site Host: David Marrison
marrison.2@osu.edu or (740)722-6073

**Greene County**
Ohio State University Extension Office
Buckeye Room
Greene County Fairgrounds
100 Fairground Road
Xenia, OH 45385
Site Host: Trevor Corboy
corboy.3@osu.edu or (937)736-7203

*We Sustain Life*



CFAES

# 2022 Beginner & Small Farm College

**October 24th, 31st & November 7th**

**Coshocton & Greene County, Ohio**

This college is designed to help landowners examine potential ways to increase profits on their small acreage properties. The program is open to all new or aspiring farmers, new rural landowners, small farmers, and farm families looking for new ideas.

During this college, participants will be challenged to develop realistic expectations for their new farm business. They will receive information on getting started, identifying the strengths and weaknesses of their property, and developing a farm business plan. Information on farm finances, insurance, liability, labor and marketing will be covered during the college.

THE OHIO STATE UNIVERSITY
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# 2022 Beginner & Small Farm College Schedule

**6:30 p.m. to 9:00 p.m.**

**October 24th - Getting Started on Your New Farm Business**

- Developing real-life expectations for your farm.
- Examining the available resources and opportunities for your property.
- Developing a farm business plan, including setting your family and farm mission, goals and objectives.
- An introduction to marketing and selling agricultural products.

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**Farm Tour (Date & Location TBD)**
Each site host will be planning a farm tour so participants can visit with a successful local farming operation to learn how they started and what they have learned during the development of their farm business.

# Registration Form

**Use for mail-in registrations only.**
Limited to the first 50 registrants per location.
Registration deadline is October 17th.

**Cost: $30 for the first person and $15 for each additional person.**

◯ **Coshocton County**

◯ **Greene County**

**Name:** _____

**Mailing Address:**

_____

_____

**Phone #:** _____

**Email Address:**

_____

**Names of additional attendees with your group:**

_____

_____

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