## **CFAES**

# NORTHEAST OHIO AGRI-CULTURE NEWSLETTER

Your Weekly Agriculture Update for Ashtabula and Trumbull Counties November 28, 2023



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#### Hello Northeast Ohio Counties!

I hope you all had a relaxing Thanksgiving day last week. I know many of you were working hard to get most of the harvest in before the wet/snowy weather set in. Driving through the county, I would say that many of you were successful in getting your crops out of the field.

Deer gun season started this week and many of you are out right now trying to fill your tags. Deer season for others may mean dealing with trespassers. Peggy Hall has a great article this week to help you navigate hunting laws.

Have a great week and happy hunting!!

Lee Beers Trumbull County Extension Educator

Andrew Holden Ashtabula County Extension Educator

#### TWO NEW ANR EDUCATORS JOIN OSU EXTENSION

#### **Seth Kannberg, OSU Extension Portage County**

Seth Kannberg joined OSU Extension Portage County as the Agriculture and Natural Resources Extension Educator. He earned his Bachelor of Science in Sustainable Plant Systems with a specialization in Agronomy and his Master of Science in Horticulture and Crop Science from the Ohio State University. Seth is brand new and has been serving Portage County for about three weeks now.

Seth grew up in Northeast Ohio in Cuyahoga County and most of his internships and job opportunities have been spent in Portage County working predominately with horses. He's most excited to visit as many farms as possible to get a better feel for the diversity of agriculture in the county.

On weekends you can find him on the pitch with the Cleveland Crusaders Rugby Football Club where he plays winger.

#### **Noelle Barnes, OSU Extension Trumbull County**

Hello Northeast Ohio! My name is Noelle Barnes, and I recently became the Agriculture and Natural Resources and 4-H Youth Development Extension Educator in Trumbull County. I grew up on a grain and beef farm in Bristolville and am very excited to be working within the community that got me my start in agriculture. I graduated from Kent State University in 2020 with my Bachelor of Science in Zoology, and currently attend the Ohio State University where I am enrolled in the Master's in Plant Health Management program. My background in agriculture stems from my involvement in the family farm and our county 4-H program. Being involved in 4-H jumpstarted my desire to find a degree and career where I could work in agriculture. I decided to focus on animal science in college and therefore my specialty and work experience involve animal management. My passion lies in working with ruminant management. I am



excited for the opportunity to work with our large animal producers in this new position.

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#### TEN LEGAL TIPS FOR THE FALL HUNTING SEASON

By Peggy Kirk Hall, Attorney and Director, Agricultural & Resource Law Program Source: <a href="https://farmoffice.osu.edu/blog/wed-11222023-207pm/ten-legal-tips-fall-hunting-season">https://farmoffice.osu.edu/blog/wed-11222023-207pm/ten-legal-tips-fall-hunting-season</a>

The fall hunting season is upon us, and landowners across Ohio are being asked to give permission to allow hunting on their land. That means now is a good time for a refresher on the laws that affect Ohio landowners and hunting. Here are ten legal tips for landowners considering hunting activities on their land.



- 1. Ohio law requires permission in writing--but landowners should review the permission form and know who they've permitted. Ohio law requires a hunter to obtain a hunting license and written permission from a landowner or the landowner's agent before hunting on private lands or waters. Landowners should expect to be asked to sign the permission form provided by ODNR, which is available on ODNR's website. The permission form allows a landowner to designate a permission period—either the entire hunting season or specific dates. If a hunter uses a different permission form, it might contain additional provisions beyond the permission to hunt, such as the right to install a tree stand or a blind on the property. Landowners should have an attorney review a form if unsure of its meaning and should document names and contact information for hunters granted permission to hunt on the property. Contact information will be helpful if there is a hunting incident or a need to contact the hunter.
- 2. Know the laws for family members and tenants. A landowner who is a resident of Ohio, the landowner's spouse, all children of any age, and all grandchildren under the age of 18 are exempt from the hunting license requirement when hunting on the landowner's land. All other family members must obtain a hunting license and follow the written permission requirement. When a landowner is not an Ohio resident, only the landowner, spouse, and children living with the landowner may hunt without a license, and only if the landowner's state of residency grants the same rights to Ohioans who own land in that state. In a rental situation where a tenant resides on the land, the tenant and the tenant's children who live on the land may hunt on the property without a hunting license and written permission.

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- 3. The hunting license exemption also applies to certain entities. If the owner of land is a limited liability company or a limited liability partnership with three or fewer individual members or partners, a member or partner who is a resident of Ohio may hunt on the land without a hunting license, as can the member or partner's children of any age and grandchildren under the age of 18. If a trust owns the land and has a total of three or fewer trustees and beneficiaries, a trustee or beneficiary who is an Ohio resident and their children of any age and grandchildren under the age of 18 may hunt on the land without a hunting license.
- 4. A hunter must also have written permission to pursue or retrieve an injured animal. Hunters often mistakenly believe they have the right to pursue an injured animal onto another property, but Ohio law says otherwise. Written permission of a landowner is required for each of these hunting activities: shooting, shooting at, catching, killing, injuring, or pursuing a wild animal or bird. Contrary to popular belief, the law does not require a landowner to give a hunter permission to pursue an injured animal—it's a choice a landowner can make.
- 5. Two Ohio laws can protect landowners from liability for hunting injuries. The first is Ohio's Recreational User Statute, which states that a landowner has no legal duty to keep the premises safe for a hunter and other recreational users who have permission to be on the land. This means the law will protect a landowner from liability if a hunter is harmed while on the property, but it won't protect a landowner who caused the harm through intentional or reckless conduct. Note that the liability protection does not apply if a landowner charges a hunter a fee for hunting, unless the fee is a payment made under a hunting lease. Read more about the Recreational User's Statute in our law bulletin on farmoffice.osu.edu. A second Ohio law addresses liability for someone who is hunting on land without permission. In that case, Ohio law states a landowner is not liable for "injury, death, or loss to person or property" that arises from a violation of the requirement to have a landowner's permission to hunt on the land.
- 6. **Be mindful of the number of hunters who could be on the land.** For safety purposes, a landowner should be careful about allowing multiple hunters onto the land at the same time. Strategies for managing multiple hunters include designating a specific parking area so hunters know if another hunter is present and setting specific hunting periods for different hunters. Taking reasonable steps to manage multiple hunters will help ensure that someone isn't harmed, and it can also protect a landowner from a potential claim that the Recreational User's Statute shouldn't apply

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because the landowner behaved recklessly by not managing multiple hunters allowed on the land. While such a claim might not be legally successful, it would require landowners and their insurance providers to prove that the Recreational User's Statute protects the landowner from liability.

- 7. Consider a hunting lease. Many hunters and hunting groups prefer to secure hunting rights through a hunting lease. A lease can provide a landowner with additional income and is one situation where the liability protection of Ohio's Recreational User Statute applies even if a payment is made to the landowner. A lease can also address other rights and responsibilities, such as number and gender of animals to be taken, placement of tree stands and blinds, use of feeders and bait, where animals may be cleaned, and property maintenance activities by hunters. See our <a href="law bulletin">law bulletin</a> on hunting lease considerations in the property law library on farmoffice.osu.edu at <a href="https://farmoffice.osu.edu/our-library/property-law">https://farmoffice.osu.edu/our-library/property-law</a>.
- 8. Ohio laws address harm to property caused by hunters. What if a landowner gives permission to a hunter, but then that hunter causes property damage? Ohio's hunting law is one law that can help. It prohibits a hunter from acting in a "negligent, careless or reckless manner so as to injure persons or property." A hunter who violates this law can face first degree misdemeanor charges and revocation of the hunting license and must also pay compensation to the harmed landowner. Ohio's reckless destruction of vegetation law is a second helpful law. It allows a landowner to seek compensation for "reckless" destruction of vegetation, trees, and crops and would address a situation where a hunter acted intentionally and without regard for the consequences. Intentionally cutting down a tree without permission or running an ATV through a planted crop are behaviors that could be deemed reckless. Under this law, a landowner could receive triple the amount of the harm caused to the property by a hunter's reckless behavior.
- 9. It's a good time to mark property boundaries. Many of the old fences that marked a farm's property boundaries in Ohio are long gone, and it's not as easy today for hunters to know where one farm begins and another ends. Especially for landowners who don't want hunting on their land, be sure boundary lines are clear to hunters. Use corner posts, fences, and "no trespassing signs." In woodlots, marking the trees on the boundary with paint is also helpful. For an overview of woodlot boundary marking, refer to this video from OSU Extension at https://www.youtube.com/watch?v=zSYYn\_onE80.

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10. Ohio has a process for dealing with poachers and trespassers. Ohio's "Turn in a Poacher" program (TIP) establishes mechanisms for reporting a violation of wildlife laws, such as hunting without permission or a license and taking animals out of season. A person can report a violation using an online reporting form on ODNR's website or by calling the TIP hotline at 1-800-POACHER (762-2437). Incident reporters are encouraged to share details such as what happened, the location, vehicle description and license plate, and descriptions of suspects. All information submitted to TIP is confidential, and reporters may choose whether or not they are willing to speak with a wildlife officer about the incident.

#### 2023 PREHARVEST WEEDS SURVEY

BY ALYSSA ESSMAN

SOURCE: <u>HTTPS://AGCROPS.OSU.EDU/NEWSLETTER/CORN-NEWSLETTER/2023-40/2023-PREHARVEST-WEEDS-SURVEY</u>

\*\*\*Editor's note – each NE Ohio County conducted their own weed survey. Those results will be shared during pesticide training, and in a future CORN article\*\*\*

Each year just before harvest, the weed science team at OSU spends some time driving across the state and evaluating weed escapes in soybean fields. This year, 4027 fields were evaluated across 46 of the top soybean producing counties. We collected information on the frequency and distribution of 10 weed species, namely: marestail, giant ragweed, common ragweed, waterhemp, Palmer amaranth, redroot pigweed, volunteer corn, common lambsquarters, giant foxtail/grass, and velvetleaf. This allows us to evaluate the efficacy of management programs, monitor escapes, and forecast potential

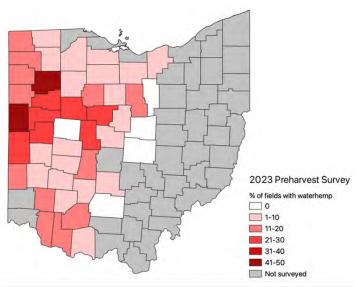


Figure 1. Results of the 2023 preharvest weeds survey illustrating the frequency and distribution of waterhemp late-season in Ohio. A county labeled with 0% does not mean no waterhemp exists in the county, but that it was not encountered on the survey.

issues and threats for the next growing season.

In 2023, 48% of fields encountered on the survey were clean, or at least free of the 10 weeds being evaluated. The most commonly encountered weed this year was

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volunteer corn, which was found in 17% of fields. In second was giant ragweed at 14%, closely followed by waterhemp at 13%. The other two species among the top 5 were marestail/horseweed and grass/foxtail spp.

The most commonly encountered weeds – percent of total fields:

- 1. Volunteer corn 17%
- 2. Giant ragweed 14%
- 3. Waterhemp 13%
- 4. Marestail/horseweed 10%
- 5. Grass/foxtail spp. 9%

The most concerning outcome was that we once again encountered waterhemp at a higher frequency than in previous years, based on percent of fields encountered with waterhemp present. This year, waterhemp was found in 89% of surveyed counties and in 13% of total fields (Figure 1). In 2022, waterhemp was present in 93% of surveyed counties in Ohio and in 11% of the total fields encountered. Waterhemp in 2021 was found in 77% of counties and in 7% of surveyed fields. In 2020, pigweeds combined across species (waterhemp, Palmer amaranth, and redroot pigweed) were found in 89% of surveyed counties and in 8% of fields.

Information on the biological characteristics of waterhemp and results of previous herbicide resistance screenings were covered in an article published last year: Waterhemp on the Rise. For more information on the prevention and management of waterhemp populations, visit our website or reach out to Alyssa Essman, Essman.42@osu.edu.

### Lee's Monthly News Column

Happy Thanksgiving, Trumbull County! Thanksgiving is by far my favorite holiday of the year. I look forward to standing outside drinking a beer while making sure the deep fryer doesn't set the neighborhood on fire. The highlight of the traditional Thanksgiving meal is obviously the turkey, but the green beans, cranberries, sweet potatoes, apples, and pumpkin are all products of a successful harvest. The preparations for Thanksgiving dinner can feel like a tall order, including shopping, getting the turkey thawed on time, the logistics of cooking multiple dishes in one oven, cleaning the house so your in-laws don't judge, decorating, and coordinating family schedules.

While we are probably all focused on just these few days of work immediately before the holiday, it pales in comparison to the thousands of people across the country who have been working for months to make this holiday meal possible. To start, the turkeys that most of us will be serving this year were fed on the corn, soybeans, and small

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grains planted and harvested by farmers in 2022. From the time turkey poults (the term for baby turkeys) hatch until they reach their mature weight, they will consume approximately 60-80 pounds of grain. To feed the 40 millions turkeys consumed on Thanksgiving alone, this equates to more than 2.4 billion pounds of grain.

Raising a turkey from hatching to market weight takes between three to five months. During this time, turkey farmers will need to check on the turkeys multiple times a day to ensure that they have adequate food, clean water, and are healthy. After the turkeys reach a mature weight, they are then sent to a processing plant or butcher to be prepared for your kitchen. Once we include in this equation the feed mill operators, truck drivers, hatchery employees, and others who help along the way, we can see a more complete picture of the people it takes to produce the food we eat.

And that's just the turkey! Thinking about the side dishes, whether it's green beans or pumpkin pie, we can talk about the farmers, laborers, employees at packing facilities, and many more who are involved in making sure those agricultural products make it to your Thanksgiving table.

Thanksgiving has grown to include many traditions unique to each family in the United States, but the roots of the holiday are closely tied to the agricultural heritage of our country. Long before football and black Friday shopping were added to the mix, this holiday existed solely as a way for communities and families to celebrate a successful harvest. Early Thanksgiving festivities began when nearly 90% of the population lived on farms, and they relied on the food they produced each year to feed their family. A failed harvest likely meant a long winter with very little extra food available. Celebrating a successful harvest means a lot today, but it certaintly had different consequences in our past.

As our Trumbull County farmers wrap up their harvest this fall and sit down to rest on Thursday, please give thanks to the farmers that made our meals possible. Whether they are raising beef, milking cows, growing vegetables in a greenhouse, or raising mushrooms in controlled environments, they work hard to feed our country. While we're falling asleep watching football, they will all probably be back out doing more farm chores, because it's a job that never stops.

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### Managing Manure Application When STP >50

By Greg LaBarge, OSU Extension Field Specialist

Source: https://u.osu.edu/beef/2023/11/22/managing-manure-application-when-stp-50/

I often get questions about managing manure applications in fields where Soil Test P (STP) is above the maintenance limit of 50 PPM in the *Tri-State Fertilizer Recommendations for Corn, Soybean, Wheat, and Alfalfa, Bulletin 974.* Be aware that the Tri-State Fertilizer Recommendations provide recommendations for the economical use of purchased fertilizer. The 50 PPM maintenance limit is the STP level where "no agronomic response, either higher yield or benefit of a higher STP, results from added fertilizer." The Tri-State Fertilizer Recommendations only address crop agronomic needs, not P's environmental impact. If you need to apply manure to a field with STP greater than 50 PPM, how can it be done to limit field P loss?

The publication Assessing Nutrient Loss Risk in Ohio, NRCS, 2020 provides environmental P loss criteria based on the STP in a field. You can download a copy at <a href="https://go.osu.edu/lossrisk">https://go.osu.edu/lossrisk</a>. The guidelines suggest reducing manure application rates with the long-term goal of reducing STP, plus increasing the use of other conservation practices to minimize edge-of-field P losses. Table 1 shows the rate criteria for the Moderate, Higher, and Very High P-risk loss assessment classes.

**Moderate:** Risk 50-120 ppm Mehlich 3. Limit the manure application rate to planned crop rotation P removal. Future soil tests must show a decreasing STP. For example, a current soil test P of 80 PPM should use a manure rate and frequency that results in an STP of less than 80 ppm in the future. If the future soil test shows greater than 80 ppm result, then a lower rate or elimination of manure application should occur. In addition to close monitoring of soil test levels, other conservation practices are required. Required practices include applications to fields with >30% cover or incorporation, use of sensitive area setbacks, no surface application in spring without a growing cover, and erosion control.

**Higher Risk: 120-200 ppm.** Applications are to provide a limited window to facilitate operational changes, such as purchasing new fields or developing arrangements with neighboring farms to secure lower STP fields. Limit the manure application rate to 50% of planned crop rotation P removal. Required practices include applications to fields with >50% cover or incorporation, use of sensitive area setbacks, no surface application in spring without a growing cover, and erosion control.

**Very High Risk:** > **200 ppm.** No P application. Drawdown P with a more intensive crop rotation that includes forages, if possible.

Table 1. Rate criteria from Ohio Phosphorus (P) Loss risk for Moderate, Higher, and Very High risk assessment classes. (Adapted from NRCS, 2020).

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		Moderate Risk	Higher Risk	Very High Risk
Rate	Soil Test P (STP)	50-120	120-200	200+
	PPM Mehlich 3			
	Rate of P	Less than or equal	50% of P removal	No P application
	Application	to the Premoval	(an nual or	
		(annual or	multiple-year crop	
		multiple-year crop	rotation)	
		rotation)		
	STP Management	Drawdown STP	Short-term P	Drawdown STP
	Strategy	over time	application to	
			facilitate change	

Manure is an excellent source of N, P, and K. Given the historically high fertilizer prices in recent years, it has more value in crop production than ever. However, continuing to build STP will only worsen P loss conditions in a field and the environmental pressure on manure use. The standards in *Assessing Nutrient Loss Risk in Ohio, NRCS, 2020* are valuable guidelines regardless of where you are in the state or whether you do or do not participate in NRCS cost share programs.

# New Dates for Northeast Ohio Small Farm Financial College Announced!

By: Andrew Holden & Lee Beers Link: <a href="https://go.osu.edu/NEOSFFC">https://go.osu.edu/NEOSFFC</a>

Small and beginning farmers in NE Ohio are encouraged to participate in the new indepth farm management educational program! The college will consist of two Saturday courses to be held on the Saturday of February 3<sup>rd</sup> and the Saturday of February 10<sup>th</sup>, 2024. Both days will run from 9:00 AM – 3:00 PM with lunch included. Both days will be held at 4-H Camp Whitewood at 7983 S Wiswell Rd, Windsor, OH 44099. The cost for the college is \$100 per participant, with the option to bring an additional family/farm member for \$50. This program also qualifies attendees for the Ohio Department of Agriculture's Beginning Farmer Tax Credit Program. Those interested in receiving this credit would be subject to additional requirements and fees (More information is available later in this release and online). Those interested in participating in this college or those seeking more information are encouraged to check out our website at: https://go.osu.edu/NEOSFFC

This course will offer 10 hours of farm management education that will help start your farm on the path to financial success. The college is designed to help landowners examine potential ways to increase profits on their small acreage properties. The

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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.

Instructors include OSU Extension Educators Andrew Holden from Ashtabula County and Lee Beers from Trumbull County, and David Marrison, Professor and Field Specialist in Farm Management, Interim Director for the Farm Financial Management & Policy Institute.

The two days will consist of four sessions:

#### **Session I - Getting Started on Your New Farm Business**

- Developing real-life expectations for your farm.
- Assessing your property and resources.
- Developing a farm business plan, including setting your family and farm mission, goals and objectives.
- Understanding farm business structures.

## Session II- You Can't Measure What You Don't Track. Farm Recordkeeping, Budgets and Taxes.

- Recordkeeping for farm businesses.
- Using enterprise budgets to project farm income.
- Developing cost of production projections.
- Introduction to farm taxes.

#### Session III - Money, Money, Money! Managing your Small Farm's Finances

- Developing a family and farm balance sheet.
- Developing financial statements including cash flow and income statements.
- Managing family and farm income and expenses.

#### **Session I - The Legal Side of Farm Financial Management**

- Legal instruments for farm financing.
- Loan options for small farms.
- Farm leases and contracts.
- Overview of risks on the farm.
- Liability insurance needs for small farms.

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This two Saturday course will feature both live, in-person lectures, recordings from other state specialist, hands-on activities, take home assignments, and the ability to apply what is taught directly to your new or current farming operation.

#### **Beginner Farmer Tax Credit Program**

Created through House Bill 95 and signed into law on April 21, 2022, the Beginner Farmer Tax Credit Program offers two income tax credits beginning in tax year 2023 in following two categories:

#### **Beginning Farmers**

Beginning farmers who attend a financial management program will receive a tax credit for the cost of attending an approved farm financial management program. This college is an approved program.

#### **Asset Owners**

Individuals/business that sell or rent farmland, livestock, buildings, or equipment to beginning farmers will receive a tax credit of 3.99% for one of the following: In the case of a sale, the sale price.

In the case of a rental, the gross rental income that the individual or business received during the first three years of the rental agreement.

In the case of a rental through a share-rent agreement, the gross rental income received during the first three years of the share-rent agreement. A share-rent agreement is an arrangement by which, in exchange for the rented assets, the beginning farmer provides the owner of the assets with a specified portion of the farm products produced from the assets.

For more information on the Beginning Farmer Tax Credit Program, including eligibility criteria and how to apply, go to <a href="https://agri.ohio.gov/programs/farmland-preservation-office/Beginning-Farmer-Tax-Credit-Program/Beginning-Farmer-Tax-Credit">https://agri.ohio.gov/programs/farmland-preservation-office/Beginning-Farmer-Tax-Credit-Program/Beginning-Farmer-Tax-Credit</a>

Those who would like to be eligible for this credit must complete some additional work and pay an additional \$200 to receive the certificate. More information on this or the course in general, is available online at <a href="https://go.osu.edu/NEOSFFC">https://go.osu.edu/NEOSFFC</a> or by contacting Andrew Holden at <a href="https://go.osu.edu/NEOSFFC">Holden at Holden.155@osu.edu</a> or calling 440-576-9008.

# Recycled phosphorus fertilizer reduces nutrient leaching, maintains yield

Source: https://www.sciencedaily.com/releases/2023/11/231127180643.htm

A promising new form of ammonium phosphate fertilizer has been field-tested by University of Illinois Urbana-Champaign researchers. The fertilizer, struvite, offers a triple win for sustainability and crop production, as it recycles nutrients from wastewater streams, reduces leaching of phosphorus and nitrogen in agricultural soils, and maintains or improves soybean yield compared to conventional phosphorus fertilizers.

"There have been some lab and greenhouse projects showing the potential of struvite, but this is the first field-scale assessment of nutrient loss and yield benefits together," said principal investigator Andrew Margenot, associate professor and faculty Extension specialist in the Department of Crop Sciences, part of the College of Agricultural, Consumer and Environmental Sciences (ACES) at U. of I. "We found that struvite can be a full substitute for monoammonium phosphate (MAP) or diammonium phosphate (DAP) for soybeans yield-wise, and it reduces nonpoint source nutrient losses relative to conventional fertilizer options."

His team's results are published in the Journal of Environmental Quality.

Applying MAP or DAP in the fall as a source of phosphorus for crops is common practice for corn and soybean production in much of the Midwest. But because the phosphorus in MAP and DAP is highly water soluble, much of the nutrient is lost during the ensuing winter and early spring months. Not only can this contribute to downstream nutrient pollution, it also means there may be less phosphorus available in the soil by the time crops are planted in spring.

Importantly, MAP and DAP also contain soluble forms of nitrogen, an overlooked fact that Margenot says is contributing to the problem of nitrate loss across the Midwest.

"There is a major blind spot in the nitrogen cycle," Margenot said. "In the U.S. and the Midwest specifically, the overwhelming majority of our phosphorus fertilizers are ammoniated. When farmers buy a phosphorus source to apply in the fall, their options are generally limited to MAP or DAP, so they can't avoid co-applying nitrogen."

He did the math in a companion paper and found DAP applied at the typical rate (200 pounds per acre) adds 36 pounds of nitrogen per acre that most farmers -- and land grant recommendations -- don't account for. Adding it up across Illinois, Margenot estimated that 198 million pounds of nitrogen are added every fall in the form of MAP or DAP.

"That number is 11% more than our statewide nitrate loss reduction target of 178 million pounds," he said. "Managing this overlooked fall-applied nitrogen is low-hanging fruit

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that could make a large dent in nitrate losses in Illinois and other Mississippi River Basin states, and we could do it without changing phosphorus application rates."

Struvite also contains nitrogen, but struvite is less water soluble than MAP. That explains why Margenot's team found phosphorus *and* nitrogen leaching were significantly lower under struvite than MAP, comparable to natural leaching measured in unfertilized soils.

But if the nutrients are less soluble, does that mean plants have a harder time accessing them? Not according to the *Journal of Environmental Quality* study. Soybean yields weren't significantly different under either fertilizer. And in the study's southern Illinois site, struvite -- but not MAP -- actually increased soybean yield compared to nofertilizer control plots. Margenot thinks the yield bump could have resulted from the magnesium in struvite.

Struvite (magnesium ammonium phosphate, a 5-28-0 [10 Mg] source) forms when magnesium is added to wastewater, where it reacts with phosphorus and nitrogen and pulls those nutrients out of the waste stream. Chicago and St. Louis have leased portions of their wastewater streams to a company to manufacture the recycled fertilizer, but Margenot says the struvite manufacturing industry is currently too small to satisfy the phosphorus needs of the entire Corn Belt.

"Struvite isn't scalable right now, but we're proving the efficacy of a solution that will be on the shelf one day. Our results point to the benefits of scaling up struvite production and use on the farm," he said.

Although struvite decreased nutrient losses relative to MAP, Margenot notes that nutrient loss happens even without added fertilizer, and recommends cover crops to mitigate these "background" losses that occur regardless of fertilization.

"When we added no fertilizer, be it MAP or struvite, we still saw substantial losses, especially in the higher organic matter Mollisols [black prairie soils] of our Central Illinois site," he said. "Our soils are so rich; they hold a lot of organic nitrogen and phosphorus. If it's warm enough, these nutrients will mineralize and become nitrate and phosphate. If there's no crop there to grab it, like a cover crop or wheat, then those nutrients will be leached."

#### **Upcoming Extension Programs**

The following programs have been scheduled for NE Ohio farmers. Check back each week as more programs are added to the calendar

#### \*Northeast Ohio Small Farm Financial College\*

February 3<sup>rd</sup> & 10<sup>th</sup> 2024 Learn more or register at <u>go.osu.edu/NEOSFFC</u>

#### **Private Pesticide/Fertilizer Applicator Training**

December 14, 2023 – Online via Zoom January 18, 2024 – Trumbull County February 14, 2024 – Geauga County March 11, 2024 – Ashtabula County March 28, 2024 – Online via Zoom Register at Go.osu.edu/NEOPAT

#### **Weeds University**

February 21, 2024 More information to come!

#### **Northeast Ohio Agronomy School**

March 27, 2024 Registration Opens Feb. 1st

#### **Pruning Classes**

March 2<sup>nd</sup> – Hartford Orchard LLC March 30<sup>th</sup> – Sage's Apple Orchard



#### **Private Pesticide Applicator Re-certification:**

Does your Private Pesticide Applicator's License expire on March 31, 2024? If so, OSU Extension in Northeast Ohio has planned four pesticide re-certification sessions for producers. Each of these sessions will offer 3 credits for pesticide re-certification for CORE and All Categories (1-7). Private Pesticide Applicators are encouraged to choose the session which best fits their schedule.

Cost: \$40/Person

#### **Fertilizer Applicator Re-Certification:**

Does your Private or Commercial Fertilizer Applicators Certification expire soon? <u>A one-hour session will be held after the pesticide session</u> for those who need to renew their Fertilizer Application Certification.

Cost: \$10/Person

#### 2024 Re-certification Programs:

- > Online via Zoom, Tuesday, December 14, 2023, 5:00 PM to 9:00 PM
  - Pesticide starts at 5:00 PM, Fertilizer starts at 8:00 PM
- ➤ Trumbull Co. Extension Office in Cortland, OH Thurs, January 18, 2024, 5:00 PM 9:00 PM
  - Pesticide starts at 5:00 PM, Fertilizer starts at 8:00 PM
  - For more information call: 330-638-6783
- ➤ Geauga Co. Extension Office in Burton, OH Wed, February 14, 2024, 1:00 PM 5:00 PM
  - Pesticide starts a 1:00 PM, Fertilizer starts at 4:00 PM
  - For more information call: 440-834-4656
- ➤ Ashtabula Co. Extension Office in Jefferson, OH Mon, March 11, 2024, 1:00 PM 5:00 PM
  - Pesticide starts at 1:00 PM, Fertilizer starts at 4:00 PM
  - For more information call: 440-576-9008
- ➤ Online via Zoom, <u>Thursday, March 28, 2024</u>, 5:00 PM to 9:00 PM
  - Pesticide starts at 5:00 PM, Fertilizer starts at 8:00 PM



# To register, please visit Go.osu.edu/NEOPAT





# 2024 Northeast Ohio Private Pesticide Applicator Re-Certification & Fertilizer Application Re-Certification Sessions

If you are unable to register online, please fill out and mail in this form below to register for one of our 2024 in-person re-certification trainings. The registration fee is \$40/per person for the private pesticide applicator re-certification. The registration fee is \$10/per person for the fertilizer re-certification session. *Pre-registration is required 7 days prior to the session date.* An additional late registration fee of \$25 per person will be added for any registration received after the registration deadline listed below.

Name

**Total Fee Due \$** 

Pesticide Applicator Number

Traine	r esticide / (pplicator	Trailibei
Email address		
Phone Number	County	
Categories Needed for Re-cer	tification	
Session I will be attending	g (check one):	
Trumbull Co. Extension Thurs, January 18, 20	Office in Cortland, OH 024, 5:00 PM – 9:00 PM	
Geauga Co. Extension Wed, February 14, 20	Office in Burton, OH 24, 1:00 PM – 5:00 PM	
	on Office in Jefferson, O <u>, 2024</u> , 1:00 PM – 5:00 Pl	
Fee Required (check all the	ne apply):	
Pesticide Applicator Re-certific	ation (\$40 pre-registration)	
Fertilizer Applicator Re-certification	ation (\$10 pre-registration)	Online registration is preferred
Late Registration Fee (\$25-if a	pplicable)	To register and pay online please

## Please make check payable to OSU Extension and mail to:

visit www.Go.osu.edu/NEOPAT

Ashtabula County OSU Extension, 39 Wall Street, Jefferson, Ohio 44047

For more information call Andrew Holden at 440-576-9008 or Holden.155@osu.edu

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES



# NORTHEAST OHIO SMALL FARM FINANCIAL COLLEGE

Small and beginning farmers are encouraged to participate in this new in-depth farm management educational program!

This course will offer 10 hours of farm management education that will help start your farm on the path to financial success.

Instructors include OSU Extension Educators Andrew Holden and Lee Beers, and Farm Management Field Specialist in, David Marrison.

This two Saturday course will feature both live, in-person lectures, recordings from other state specialist, hands-on activities, take home assignments, and the ability to apply what is taught directly to your new or current farming operation.

DATE: Saturday, February 3rd and Saturday, February 10th, 2024

**TIME:** 9:00 AM - 3:00 PM

**LOCATION: 4-H Camp Whitewood** 

7983 S Wiswell Rd, Windsor, OH 44099

COST: \$100 per participant, \$50 per additional family member

Register here: **go.osu.edu/NEOSFFC**Call Andrew Holden at 440-576-90089 with any questions!







## **CFAES**

## **Topics:**

## Starting Your New Farm Business

Goals and Expectations
Mission Statements
Business Plan
Farm Business Structure

## Recordkeeping, Budgets and Taxes

Enterprise Budgets
Projecting Farm Income
Cost of Production
Introduction to Farm Taxes

## Managing Your Small Farm's Finances

Balance Sheets
Cash Flow Statements
Financial Statements
Managing Income and
Expenses

# The Legal Side of Farm Financial Management

Farm Financing
Loan Options for Small Farms
Farm Leases and Contracts
Risks on the Farm
Liability Insurance

#### **Sponsors:**

OSU Extension-Ashtabula & Trumbull Counties

OSU Beginner and Small Farms
Program

Farm Financial Management and Policy Institute (FFMPI)

Risser Farm Management Fund
Bruns Insurance Services