

NORTHEAST OHIO AGRI-CULTURE NEWSLETTER

Your Weekly Agriculture Update for
Ashtabula and Trumbull Counties

November 14, 2023



Pesticide Applicator Training is kicking off in Lake County!

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Hello Northeast Ohio Counties!

Dry weather has certainly helped speed harvest along in the last week. Soybeans throughout the region are approximately 90%+ harvested, and a lot of corn has been harvested over the weekend. Reports of higher-than-expected corn yields continue to roll in. Reluctant corn moisture also seems to have finally dropped to around 20%.

Despite the wild weather this year, it looks like most farmers will have a relaxing Thanksgiving if the weather cooperates.

Have a great week and a safe harvest!

Lee Beers
Trumbull County
Extension Educator

Andrew Holden
Ashtabula County
Extension Educator

Coffee and Grain Marketing Talk Scheduled for Friday November 17

OSU Extension invites Ohio soybean and corn producers to grab a cup of coffee this Friday morning, November 17, and tune in for **Coffee and Grain Marketing** with Dr. Seungki Lee from 7:30 to 8:00 a.m. via Zoom.

The latest World Agricultural Supply and Demand Estimates (WASDE) crop report was released last week. Tune in to see what this month's report might mean for producers and their marketing strategies as work to complete harvest across Ohio. Attend and learn more about:

- 1) US Production Estimates (based on the Nov 9 WASDE report)
- 2) Continuous low water level in the Mississippi River
- 3) Brazil production forecast

Farmers and ag business personnel are encouraged to bring their questions to this early morning conversation. There is no fee to attend any of these webinar sessions. Pre-register at: go.osu.edu/coffeewithDrLee

[Click here to access a program flyer](#)

The sponsors of this event include: OSU Extension, the Ohio Soybean Council, Farm Financial Management & Policy Institute (FFMPI), and the Department of Agricultural, Environmental and Development Economics (AEDE)

NEW LAW LIMITS WHO CAN OWN AGRICULTURAL LAND IN OHIO

By: Peggy Kirk Hall, Attorney and Director

Source: <https://farmoffice.osu.edu/blog/thu-11092023-900am/new-law-limits-who-can-own-agricultural-land-ohio>

The State of Arkansas made history last month when it took steps to enforce its new law restricting foreign ownership of land in the state. Arkansas ordered Northrup King Seed Co., a subsidiary of Syngenta held by China-owned company ChemChina, to give up 160 acres of Arkansas farmland it owned. The State also assessed a \$280,000 fine against Syngenta for failing to disclose the land ownership. The actions are the result of a new foreign ownership law enacted by the Arkansas legislature earlier this year.

Joining Arkansas and ten other states, Ohio also passed a law restricting foreign ownership of land earlier in 2023. Ohio's new "Save our Farmland and Protect our

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National Security Act” quietly became effective last month. The law limits who can own agricultural land in the state and requires persons or entities who cannot own Ohio farmland to forfeit title to the property, which the State will then sell. The purpose of the law, according to the legislature, is “to recognize that Ohio has substantial and compelling interests in protecting its agricultural production.”

Who the law restricts from owning agricultural land in Ohio

The law is not an absolute restriction on foreign ownership of land. Instead, the law prohibits agricultural land ownership by any “person” listed on a registry compiled by Ohio’s Secretary of State. A “person” can include an individual, firm, company, trust, business or commercial entity, organization, joint venture, non-profit, or non-U.S. government. The prohibition applies not just to the person listed on the registry, but also to any agent, trustee, or fiduciary of the person.



The Ohio Secretary of State must compile the “registry” by identifying and including any person that constitutes a threat to the agricultural production of the state. To develop the registry, the Secretary of State must consult several federal sources, including the list of foreign adversaries, terrorist exclusion list, list of countries that have provided support for acts of international terrorism, and persons designated by two presidential Executive Orders. In accordance with the law, Ohio’s Secretary of State has compiled the registry and published it online at <https://www.ohiosos.gov/publicintegrity/save-our-farmland/>.

Exceptions to the ownership restrictions

The restriction does not apply to any agricultural land acquired before the act’s effective date of October 3, 2023. Nor does it apply to a transfer of land to a person on the registry through inheritance, gift, collection of a debt, foreclosure, or enforcement of a lien. However, in these instances, the person must divest itself of the title and any interest in the land within two years of receiving the property. And while holding the land until divestiture, the person cannot use it for any purpose other than agriculture or lease it to any person on the registry.

Enforcement of the law

Enforcement involves both the Secretary of State and the Ohio Attorney General. If the Secretary of State finds that a person listed on the registry has acquired title or an interest in land in violation of the law, the Secretary of State

must report the violation to the Attorney General. Others can report land ownership by a person on the registry via the Secretary of State's web page for the registry, <https://www.ohiosos.gov/publicintegrity/save-our-farmland/>.

Upon learning of the violation, the Attorney General must initiate a legal action in the county where the land is located. If the court agrees that the ownership violates the law, it shall file an order allowing the state to take ownership of the land and ordering the land to be sold at public auction, following required legal procedures. Proceeds from the sale are to be applied first to any court costs and expenses, then to the registered person. That amount is limited, however, to the actual cost paid by the registered person for the land. If any sale proceeds remain, the funds are to be paid to the general fund of each county where the land is located, proportionate to the acreage in the county.

Learn more on our next Farm Office Live!

Join us on our next Farm Office Live webinar as we discuss Ohio's new foreign ownership law and talk with Micah Brown, staff attorney with the National Agricultural Law Center, about foreign ownership restrictions in the U.S. and what they mean for agriculture. The Farm Office team will also cover Using Charitable Remainder Trusts, Ohio's Role in Organic Grain Production, Farm Business Analysis Update, and Farmer Mental Health Concerns and Resources. Farm Office Live takes place on November 17 at 10 a.m.-- registration is necessary at <https://farmoffice.osu.edu/farmofficelive>.

Read the primary provisions of Ohio's Save Our Farmland and Protect Our National Security Act in Ohio Revised Code Section 5301.256. The Ohio Legislature enacted the law in House Bill 33, the biennial budget bill.

Did controlled drainage help your 2023 crop yield?

By Vinayak Shedekar, The Ohio State University

Source: <https://ocj.com/2023/11/did-controlled-drainage-help-your-2023-crop-yield/>

If you practice controlled drainage during the growing season, do you think that controlled drainage helped your crop yields in 2023? It may be too early to answer this question, as many of you are still waiting to finish harvest. But if you are wondering about the role that controlled drainage played this



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year, I will give you a few tips on how to answer this question.

The early season drought affected crops across most of the state. If you can obtain monthly rainfall totals from an on-site rain gauge or a nearby weather station, look at the rainfall totals from April through September and compare them with average crop water use. The OSU weather station network website

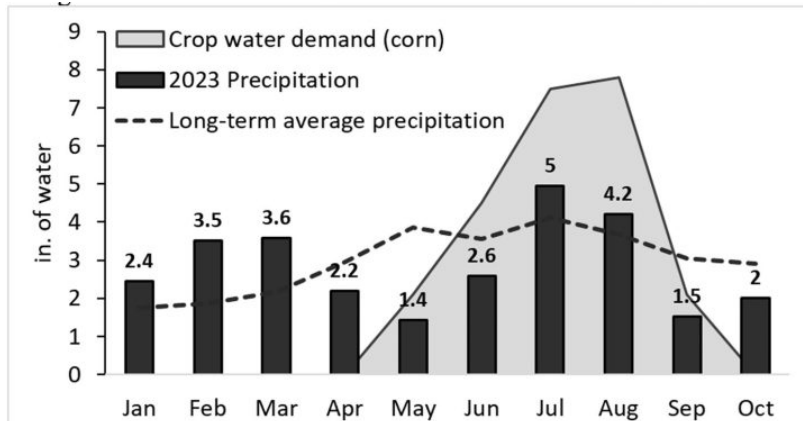
(weather.cfaes.osu.edu)

provides weather data and graphs that can be helpful. For example, the Northwest branch research station in Wood County recorded lower than average rainfall during April, May and June, and slightly above average rainfall in July and August. Looking at the crop water demand in Wood County, corn experienced a water deficit of about 2.5 inches during May and June, and about 6 inches during July and August. Grain crops typically experience a 5- to 6-inch deficit in the months of July and August, and that was the case in 2023 despite above average rainfall in those months. However, unlike an average year, the corn crop likely also faced a water deficit of at least 2 inches during the early growth stages.

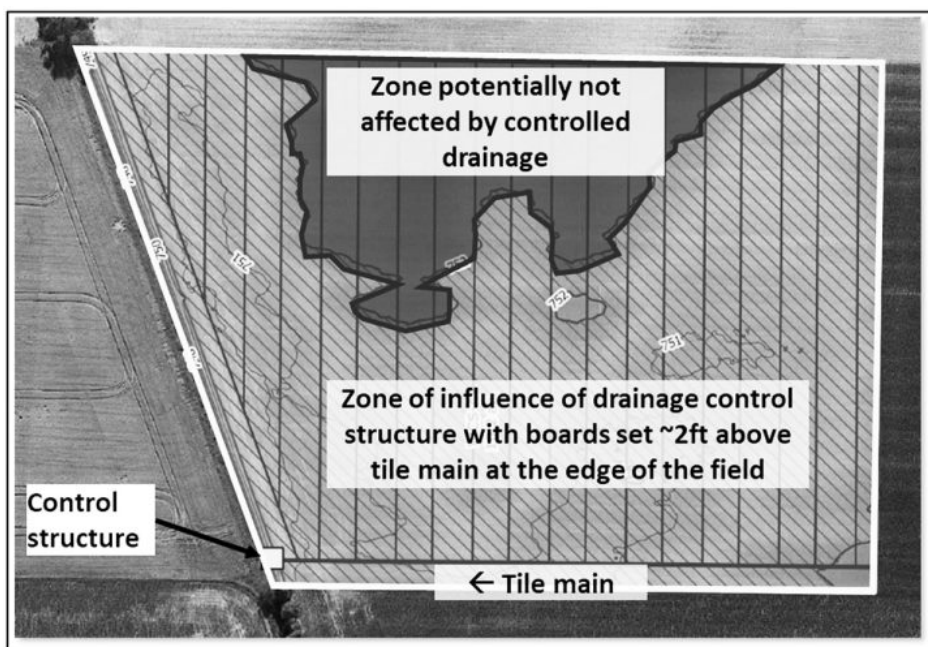
How much water can controlled drainage conserve?

Although it would be very difficult to generalize this, typically you would

raise the water table in the control structure after field operations in spring (mid-June) to about 24 inches below ground surface elevation in the lowest spot of the field (typically,



Monthly rainfall during the 2023 growing season



this is the farmable ground surface above the tile main just before it exits the field). Producers with more experience tend to set the boards closer to 18 inches below the surface. Be ready to actively manage that structure if you prefer to maximize storage by maintaining shallower water table depths. Considering that there may be 30 to 45 inches of soil water storage behind the control structure, how much water do you think is available to crops that would otherwise be lost through the tile outlet? The soil at that depth can retain about 0.5 to 1 inch of gravitational water per foot of soil, depending upon the soil's texture and bulk density. A conservative estimate is about 0.5 to 0.75 inch of water retention, with an ability to replenish that storage every time there is a substantial rainfall event. During peak water demand periods, even though the corn roots may not have grown to the 24-inch depth, capillarity helps bring water from deeper soil layers to the roots. However, corn can use up to 0.3 inch of water per day during these peak demand periods. Thus, with controlled drainage and no rain, there can be about 2 to 5 days of moisture reserve in a controlled drainage system depending upon temperature and rainfall patterns. An additional 5-day buffer period may make a difference in crop yields, especially in a relatively dry year like 2023.

How to detect the effect of controlled drainage on crop yield?

An easy way is to compare the average yield from the field under controlled drainage with another field with a free-draining outlet. However, it may or may not be a fair comparison given the differences in soils, inputs, and other factors between these fields. A better option would be to look at your yield map and see if you notice greater yields closer to the control structure. If you want to get really accurate, get a contour map of the field, then draw out the area of the field that is within 45 inches of vertical elevation from the ground surface above the tile main near the outlet. Now this area is what you can consider to be the "zone of influence" for controlled drainage. You can divide up the yield map between the zones and compare the average yields. You may or may not see huge gains in crop yield every year, but in relatively dry years, controlled drainage can certainly help. The benefits to water quality as well as crop yields is what makes controlled drainage a win-win practice. Feel free to reach out to us if you have more questions or find something interesting.

This column is provided by the OSU Department of Food, Agricultural and Biological Engineering, OSU Extension, International Program for Water Management in Agriculture, Ohio Agricultural Research and Development Center, and the College of Food, Agricultural, and Environmental Sciences. Dr. Vinayak Shedekar is the Assistant Professor of Agricultural Water Management and director of the Overholt Drainage Research and Education Program in the OSU Department of Food, Agricultural and Biological Engineering and can be reached at shedekar.1@osu.edu.

AN ENVIRONMENTAL LAW HARVEST

By: Peggy Kirk Hall, Attorney and Director

Source: <https://farmoffice.osu.edu/blog/tue-11142023-900am/environmental-law-harvest>

OSU's Agricultural & Resource Law Program is fortunate to be a partner with the National Agricultural Law Center, which includes working with the Center's Law Fellows—students currently studying law in different law schools across the country. Carolyn C. Jolly is one of our current Law Fellows, and she has an interest in environmental laws that affect agriculture. Carolyn is the author of today's blog. She has assembled a harvest of environmental updates affecting agriculture that include approval of Ohio EPA's phosphorus TMDL, a practical ESA guide for producers, EPA's commitment to adhering to its ESA requirements, and an update on participation by agricultural producers in voluntary carbon markets.

EPA Approves Ohio's Maumee Watershed Nutrient Total Maximum Daily Load

In 2014, phosphorous runoff from farms in the western basin of Lake Erie caused an algal bloom. Harmful algal blooms

produce toxins that impair drinking water, affect aquatic life, and hinder recreational use. Coming up with a solution to reduce the phosphorus runoff has been contentious. In 2019, Toledo voters passed a bill that would allow citizens to sue farmers on behalf of the lake. This measure was held to be unconstitutional, but it could have greatly impacted the ability of farmers and producers to continue their operations. To address specific pollutants, the Clean Water Act requires states to develop Total Maximum Daily Loads (TMDL). Environmental interests and local governments in Ohio legally challenged both the Ohio EPA and U.S. EPA to establish a TMDL for the

western Lake Erie Basin. In June of 2023, the Ohio EPA did submit a proposed TMDL for to the EPA and it was approved in September. The aim of the TMDL is to reduce phosphorus runoff in the Maumee Watershed.



Maumee Watershed Nutrient

Total Maximum Daily Load



Ohio EPA Technical Report AMS/2023-MWIN-5

Here are some of the approaches for agricultural areas the EPA included in the TMDL:

Nutrient Management

- Soil testing and nutrient management planning efforts (e.g., Voluntary Nutrient Management Plans via H2Ohio funding)

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- Variable rate fertilization and subsurface placement of fertilizer (e.g., following the '4 R's' of nutrient management: using the right nutrient at the right rate and right time in the right place)
- Manure incorporation (mixing manure into soils or placing the manure below the soil surface)

Erosion Management

- Conservation crop rotation and cover crops (e.g., improving soil health, increasing soil organic matter, improving soil moisture storage capacity, etc.)

Agricultural Water Quantity Management

- Drainage water management (e.g., management of discharge from agricultural tile drainage lines to store water in the water table beneath fields and reduce discharge to surface waters)
- Edge-of-field buffers (e.g., planting in riparian areas to increase water storage and decrease nutrient and sediment inputs, Great Lakes Restoration Initiative)
- Two-stage ditch deployment (e.g., modifying the profile of stream channel bottoms by constructing a bench/floodplain adjacent to the existing stream channel to slow water flow during high flow events and trap nutrients and sediment)
- Wetland restoration and preservation (e.g., the restoration/protection of existing wetlands are beneficial for storing water and nutrients on the landscape, Environmental Quality Incentives Program; Western Lake Erie Basin Project - Ohio)

Read the Final TMDL on the Ohio EPA's [webpage for the Maumee Watershed](#).

Agricultural Producers Now have a Practical Guide to the Endangered Species Act

The Endangered Species Act (ESA) is intended to protect endangered and threatened species and thus has an impact on agriculture and land use across the country. However, being such a wide-ranging piece of legislation, it can be difficult to understand the law and its full impact on agriculture. Brigit Rollins, an attorney with our partner, the National Agricultural Law Center, set out to answer how and why the ESA affects agriculture and land use by creating the Endangered Species Act Manual: A Practical Guide to the ESA for Agricultural Producers. It is a concise guide that describes the history of the ESA, influential case law, regulatory changes, and specifics of the ESA's impact on agriculture. Additionally, it is meant to be a living document that will be updated with current changes and issues.

EPA on Balancing ESA Requirements and Responsible Pesticide Use

When registering new uses for pesticides and reviewing already registered uses, the Environmental Protection Agency (EPA) is required to consult the Endangered

Species Act (ESA) to ensure that the use follows ESA standards. This can be a lengthy process and the EPA has complied with the process in less than 5% of its actions. This noncompliance has resulted in substantial litigation. To address these issues, EPA issued its ESA Workplan. EPA actions in the workplan include developing mitigation measures for particularly vulnerable species, developing and implementing strategies to identify mitigation measures for the different classes of pesticides, completion of ESA work for eight organophosphates and four rodenticides, and hosting a workshop with stakeholders to explore other methods of offsetting pesticide impacts. EPA also released its Draft Herbicide Strategy for comment and the Rodenticide, Insecticide, and Fungicide Strategies are under development. The EPA has also released its ESA guidance for future registrations.

Agricultural Producer Participation in Carbon Markets

To mitigate climate change, Congress passed the Growing Climate Solutions Act (GCSA) to improve access to carbon markets for agricultural producers. In accordance with the law's requirements, the U.S Department of Agriculture (USDA) released A General Assessment of the Role of Agriculture and Forestry in the U.S. Carbon Markets on October 23, 2023. The report addresses participation by agricultural producers in the carbon market, barriers to and concerns or participation, and ways to improve producer participation. The report notes that even though producers are aware of the carbon market, voluntary participation has been low. According to the report, "Producers cite the concerns about the return on investment, upfront costs, data collection burdens, compensation for pre-existing practices, permanence requirements, issues of scale, and confusion about carbon markets and programs as key factors in their evaluation into whether to participate in a carbon project." The USDA concludes that to reduce barriers to participation, strategies need to be implemented to "reduce transaction costs, minimize record-keeping burdens, address early-adopter and permanence requirement concerns, and address barriers related to project scale." The report also details the USDA's role in improving participation through outreach and education, offering grants and partnerships, supporting carbon market infrastructure, and investing in measurement, monitoring, reporting, and verification of carbon credit procedures.

Pesticide, herbicide, fungicides detected in New York state beeswax

Source: <https://www.sciencedaily.com/releases/2023/11/231109221438.htm>

An analysis of beeswax in managed honeybee hives in New York found a wide variety of pesticide, herbicide and fungicide residues -- exposing current and future generations of bees to long-term toxicity.

The study, published in the Journal of Veterinary Diagnostic Investigation, notes that people may be similarly exposed through contaminated honey, pollen and wax in cosmetics. Though the chemicals found in wax are not beneficial to humans, the small amounts in these products are unlikely to pose a major risk to human health, as compared to their impact on bees.

Bees reuse wax over years, causing chemicals to accumulate, including those that are no longer in use in New York but remain in beeswax.

"Because pesticides can accumulate in wax, it's important for beekeepers to keep removing old wax every few years and having the bees replace it to make sure the colonies and the bee products remain healthy," said Karyn Bischoff, associate professor of practice at Cornell University and the study's lead author.

Toxic residues get into beeswax from nectar and pollen of plants that have been sprayed with pesticides, and from drugs and pesticides that beekeepers apply to hives to improve bee health. Healthy bees are vital to New York's economy and agriculture: the state's beekeeping industry generated close to \$11 million worth of honey in 2020 and annually generates \$300 million in pollination services to agriculture.

Pesticides were found in all 72 managed honeybee colony samples analyzed and researchers tallied up to 34 fungicides, 33 insecticides and 22 herbicides, with each wax sample averaging about 18 residues. Wax sent by commercial beekeepers contained the most residues.

"Commercial beekeepers had the most pesticides, which makes sense because those bees are exposed to a lot of different crops, and farmers may use different pesticides for each," Bischoff said.

The most common chemicals, found in 86% of samples, were acaricides -- a class of insecticides that beekeepers use to protect honeybees from varroa mites. These mites are associated with very high bee losses over winter.

Almost every sample (98.6%) contained piperonyl butoxide, a compound that makes animals, insects and fungi more sensitive to insecticides and fungicides, making them more effective. Systemic insecticides (placed on seeds before planting and spreading to all parts of a plant as it grows), called neonics, were also common in samples.

Understanding which contaminants are impacting domestic honeybees may help researchers better protect other pollinators, including wild bees and other insects, as well as birds and bats, Bischoff said.

The New York State Environmental Protection Fund and the U.S. Department of Agriculture funded the research.

Ammonia for fertilizers without the giant carbon footprint

Source: <https://www.sciencedaily.com/releases/2023/11/231113192039.htm>

The production of ammonia for fertilizers -- which has one of the largest carbon footprints among industrial processes -- will soon be possible on farms using low-cost, low-energy and environmentally friendly technology.

This is thanks to researchers at UNSW Sydney and their collaborators who have developed an innovative technique for sustainable ammonia production at scale.

Up until now, the production of ammonia has relied on high-energy processes that leave a massive global carbon footprint -- temperatures of more than 400 oC and pressures exceeding 200 atmospheres that account for 2 per cent of the world's energy and 1.8 per cent of its CO₂.

But the researchers have come up with a method that significantly enhances energy efficiency while making environmentally friendly ammonia economically feasible. The new technique eliminates the requirement for high temperatures, high pressure, and extensive infrastructure in ammonia production.

In a paper published recently in the journal Applied Catalysis B: Environmental, the authors show that the process they developed has enabled the large-scale synthesis of green ammonia by increasing its energy efficiency and production rate.

The foundation of this research, previously published by the same research group, has already been licensed to an Australian industry partner, PlasmaLeap Technologies, through the UNSW Knowledge Exchange program. It is set to be translated into the Australian agriculture industry, with a prototype already scaled up and ready for deployment.

The latest study follows on from the proof-of-concept research performed by the same UNSW research group three years ago with significant advances in energy efficiency and production rate in the process, thus improving commercial profitability.

The research also represents an opportunity to use green ammonia in the hydrogen transport market, as liquid ammonia (NH₃) can store more hydrogen in a smaller space than liquefied hydrogen (H₂), making the transportation of hydrogen energy more economical.

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Net zero objectives

While the conventional process used for ammonia production is notably energy-intensive -- relying heavily on fossil fuels as its primary energy and hydrogen sources -- it has been instrumental in increasing crop yields and sustaining a growing global population.

Dr. Ali Jalili, the study's leader and a former Australian Research Council DECRA Fellow at UNSW, says adopting a sustainable approach to ammonia production is crucial for global net zero objectives.

"Currently, the traditional method of producing ammonia -- known as the Haber-Bosch process -- accounts for 2.4 tonnes of CO₂ per tonne of ammonia, equivalent to approximately 2 per cent of global carbon emissions. Additionally, Haber-Bosch is economically viable only in large-scale and centralised facilities. Consequently, the transportation from these facilities to farms will increase the CO₂ emission by 50 per cent," he says.

"Ammonia-based fertilisers are in critically short supply due to international supply chain disruptions and geopolitical issues, which impact our food security and production costs.

"This, together with its potential for hydrogen energy storage and transportation, makes ammonia key to Australia's renewable energy initiatives, positioning the country among the leaders in renewable energy exports and utilisation."

As well as addressing economic and logistical challenges associated with intermittent energy sources for cities or farms, Dr Jalili says to fully unlock its potential, it is "essential to establish a decentralised and energy-efficient production method that can effectively use surplus renewable electricity."

Announcing our "Planning for the Future of Your Farm" Fall and Winter Workshops

By Peggy Kirk Hall, Attorney and Director, Agricultural & Resource Law Program

Source: <https://farmoffice.osu.edu/blog/fri-11032023-145pm/announcing-our-planning-future-your-farm-fall-and-winter-workshops>

If you and your family are grappling with the critical issue of how to transition the farm operation and farm assets to the next generation, we can help. Attend one of our **"Planning for the Future of Your Farm"** workshops this fall and winter to learn about the communication and legal strategies that provide solutions for dealing with farm transition needs and decisionmaking. We've scheduled both a webinar version and several in-person options for the workshop, with the first in-person

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workshops coming up soon--November 29, 2023 in Mt. Orab and December 7 in Celina.

This workshop challenges farm families to actively plan for the future of the farm business. Learn how to have crucial conversations about the future of your farm and gain a better understanding of the strategies and tools that can help you transfer your farm's ownership, management, and assets to the next generation. We encourage parents, children, and grandchildren to attend together to develop a plan for the future of the family and farm.

Teaching faculty for the workshop are David Marrison, OSU Extension Farm Management Field Specialist, and Robert Moore, Attorney with the OSU Agricultural & Resource Law Program. Topics David and Robert will cover in the workshop include:

- Developing goals for estate and transition planning
- Planning for the transition of control
- Planning for the unexpected
- Communication and conflict management during farm transfer
- Federal estate tax challenges
- Tools for transferring assets
- Tools for avoiding probate
- The role of wills and trusts
- Using LLCs
- Strategies for on-farm and off-farm heirs
- Strategies for protecting the farmland
- Developing your team
- Getting your affairs in order
- Selecting an attorney

Webinar version. You and your family members can attend the workshop individually from the comfort of your homes. The four-part webinar series will be February 5, 12, 19, and 26, 2024, from 6:30 to 8:30 p.m. via Zoom.

In-person workshops. Our local Extension Educators are hosting in-person workshops at five regional locations across Ohio:

- November 29, 2023 - Brown County - Mt. Orab
- December 7, 2023 - Mercer County - Celina
- January 19, 2024 - Columbiana County - Lisbon
- January 26, 2024 - Champaign County - Urbana
- February 2, 2024 - Seneca County - Tiffin
- April 4, 2024 - Warren County - Lebanon

Registration is required. Find registration information for all workshops at <https://farmoffice.osu.edu/farm-transition-planning>.

We hope you'll join us to move forward on planning for the future of your farm! For questions about the workshop, please contact David Marrison at marrison.2@osu.edu or 740-722-6073.

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

Postponed to February 2024 TBD - Learn more or register at <https://go.osu.edu/NEOSFFC>

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

Weeds University

February 21, 2024
More information to come!

Northeast Ohio Agronomy School

March 27, 2024
Registration Opens Feb. 1st

Pruning Classes

March 2nd – Hartford Orchard LLC
March 30th – Sage's Apple Orchard

CFAES

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

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? A one-hour session will be held after the pesticide session 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, Thursday, March 28, 2024, 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](https://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 _____ Pesticide Applicator Number _____

Email address _____

Phone Number _____ County _____

Categories Needed for Re-certification _____

Session I will be attending (check one):

____ Trumbull Co. Extension Office in Cortland, OH
Thurs, January 18, 2024, 5:00 PM – 9:00 PM

____ Geauga Co. Extension Office in Burton, OH
Wed, February 14, 2024, 1:00 PM – 5:00 PM

____ Ashtabula Co. Extension Office in Jefferson, OH
Mon, March 11, 2024, 1:00 PM – 5:00 PM

Fee Required (check all the apply):

____ Pesticide Applicator Re-certification (\$40 pre-registration)

____ Fertilizer Applicator Re-certification (\$10 pre-registration)

____ Late Registration Fee (\$25-if applicable)

Total Fee Due \$ _____

Online registration is preferred

To register and pay online please
visit www.Go.osu.edu/NEOPAT

Please make check payable to OSU Extension and mail to:
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



Join Us On:
November 17

7:30 to 8:00 a.m.
via Zoom



**THE OHIO STATE
UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

OSU Extension presents:

Coffee and Grain Marketing with Dr. Seungki Lee

Grab a cup of coffee and join OSU Extension's conversation with Dr. Seungki Lee as he examines the **World Agricultural Supply and Demand Estimates (WASDE)** crop reports each quarter in 2023. Learn more about the factors impacting the corn, soybean, and wheat markets. Producers are encouraged to bring their questions to this early morning conversation.



**OHIO SOYBEAN
COUNCIL**



There is no fee to attend any of these webinar sessions.
Pre-register at: go.osu.edu/coffeewithDrLee

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GET PAID UP TO \$1,000 PER ACRE TO IMPROVE YOUR FARM HEALTH

Accelerating Appalachia has launched its USDA Climate Smart Commodities grant-funded Building Soil, Building Equity Initiative. This innovative program aims to build soil health and expand conservation farming across Central/Southern Appalachia and the rural Southeast.

Through our Farmer Fund, we will be able to incentivize over 400 producers with direct incentives up to \$1,000/acre for adoption of up to 12 farming and forestry practices. The funding provides \$12 million in cash incentives and \$6 million in training and marketing services.

If you farm in Kentucky, North Carolina, Tennessee, South Carolina, West Virginia, Virginia, Southern Ohio, or Northern Georgia, you may be eligible. **Producers are encouraged to apply by December 1, 2023.** Check your eligibility and start your application today!

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