Hello Northeast Ohio Counties!

Hot and dry weather continues to be the main story for NE Ohio crops. The forecasted rains for the next few days would really shoot the corn and beans up rapidly. If you’re trying to make hay, the forecast is probably not your friend with a chance of rain – mostly less than 50% - for the next week.

We are quickly approaching the Trumbull County fair, so that likely means high heat, and torrential downpours. That also means we are getting close to wheat harvest. Stay safe out there, and stay cool!

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It’s Time to Talk About Noxious Weeds Law
By: Peggy Kirk Hall
Source: https://farmoffice.osu.edu/blog/thu-06242021-901am/its-time-talk-about-noxious-weeds-law

Poison hemlock and Canada thistle are making unwelcome appearances across Ohio, and that raises the need to talk about Ohio’s noxious weeds law. The law provides mechanisms for dealing with noxious weeds—those weeds that can cause harm to humans, animals, and ecosystems. Location matters when we talk about noxious weeds. That’s because Ohio law provides different procedures for dealing with noxious weeds depending upon where we find the weeds. The law addresses the weeds on Ohio’s noxious weeds list in these four locations:

1. Along roadways and railroads
2. Along partition fence rows
3. On private land beyond the fence row
4. On park lands

Along roadways and railroads. The first window just closed for mandatory mowing of noxious weeds along county and township roads. Ohio law requires counties, townships, and municipalities to destroy all noxious weeds, brush, briers, burrs, and vines growing along roads and streets. There are two mandated time windows for doing so: between June 1 and 20 and between August 1 and 20. If necessary, a cutting must also occur between September 1 and 20, or at any other time when necessary to prevent or eliminate a safety hazard. Railroad and toll road operators have the same legal duty, and if they fail to do so, a township may cause the removal and bring a civil action to recover for removal costs.

Along partition fence rows. Landowners in unincorporated areas of the state have a duty to cut or destroy noxious weeds and brush within four feet of a partition fence, and the law allows a neighbor to request a clearing of the fence row if a landowner hasn’t done so. If a landowner doesn’t clear the fence row within ten days of receiving a request to clear from the neighbor, the neighbor may present a complaint to the township trustees. The trustees must visit the property and determine whether there is a need to remove noxious weeds and if so, may order the removal and charge removal costs against the landowner’s property tax bill.
On private land beyond the fence row. A written notice to the township trustees that noxious weeds are growing on private land beyond the fence row will trigger another township trustee process. The trustees must notify the landowner to destroy the weeds or show why there is no reason to do so. If the landowner doesn’t comply within five days of receiving the notice, the trustees may arrange for destruction of the weeds. The township may assess the costs against the landowner’s property tax bill.

On park lands. If the township receives notice that noxious weeds are growing on park land or land owned by the Ohio Department of Natural Resources, the trustees must notify the OSU Extension Educator in the county. Within five days, the Educator must meet with a representative of the ODNR or park land, consider ways to deal with the noxious weed issue, and share findings and recommendations with the trustees.

Even with noxious laws in place, we recommend talking before taking legal action. If you’re worried about a noxious weed problem in your area, have a talk with the responsible party first. Maybe the party isn’t aware of the noxious weeds, will take steps to address the problem, or has already done so. But if talking doesn’t work, Ohio law offers a way to ensure removal of the noxious weeds before they become a bigger problem.

We explain the noxious weed laws in more detail in our law bulletin, Ohio’s Noxious Weed Laws. We’ve also recently illustrated the procedures in a new law bulletin, Legal Procedures for Dealing with Noxious Weeds in Ohio’s Rural Areas. Also see the OSU Agronomy Team’s recent article about poison hemlock in the latest edition of C.O.R.N, available through this link.

Ohio NRCS Announces Second Round of Conservation Stewardship Program Funding for Conventional and Organic Producers

COLUMBUS, Ohio, June 16, 2021 – The USDA’s Natural Resources Conservation Service (NRCS) in Ohio is accepting applications for a second round of funding for the Classic Conservation Stewardship Program (CSP). Agricultural producers wanting to enhance current conservation efforts are encouraged to apply by the July 9, 2021 deadline.

Through CSP, conventional and organic agricultural producers and forest landowners earn payments for actively managing, maintaining, and expanding conservation
activities like cover crops, ecologically-based pest management, buffer strips, and pollinator and beneficial insect habitat – all while maintaining active agriculture production on their land.

“Ohio producers have a unique opportunity to achieve higher levels of conservation through this second round of funding,” said Lori Ziehr, Ohio Natural Resources Conservation Service Acting State Conservationist. “By taking advantage of the program, they can utilize NRCS technical and financial resources to enhance both their business operations and natural resources.”

CSP encourages the adoption of cutting-edge technologies and new management techniques such as precision agriculture applications, on-site carbon storage and planting for high carbon sequestration rates, and new soil amendments to improve water quality.

While applications for CSP are accepted throughout the year, interested producers should submit applications to their local NRCS office by July 9, 2021, to be considered for the second 2021 funding period.

NRCS has specifically set aside $300,000 dollars to provide financial and technical assistance to Ohio organic producers. Many activities covered under CSP will help organic farmers continue to achieve economical sustainability, including natural borders along fields that protect organic crops. To qualify for CSP Organic funding, 75% or more of the land in operation must be certified organic or transitioning to organic production.

CSP, the nation’s largest conservation program in terms of participating land, is designed to help farmers have more robust conservation activities. Producers interested in either the Classic or Organic CSP should call their local Ohio USDA service center or visit Ohio NRCS CSP webpage to learn more details.

**Bioreactors Chip away at Nitrogen Pollution**

By: Adityarup "Rup" Chakravorty


Bioreactors are underground trenches filled with woodchips. They have been gaining traction as a tool to remove nitrogen from the water in agricultural settings.
The water draining from fields is channeled into the bioreactors. Natural microbes living on the woodchips remove the nitrogen compounds in the water as it flows through.

Because it is the bacteria that do this water-cleaning process, it's called a **biological process, hence the name bioreactor**.

The water exiting the bioreactors has much less nitrogen, making it healthier for the environment.

In a new study, researchers tested parameters that could help estimate the working lifespan of these bioreactors. **The research** was published in *Agrosystems, Geosciences & Environment*, a publication of the American Society of Agronomy and Crop Science Society of America.

“Our goal is to give farmers and other stakeholders a better understanding of how long these systems will last when they are used in the field,” says Abby Schaefer, lead author of the study.

The study spanned two years. The researchers tested nine bioreactors. By the end of that time, all the bioreactors were still effectively removing nitrogen from the water.

Removing nitrogen from the drainage water in agricultural settings is crucial because nitrogen can be a double-edged sword.

Crops need nitrogen to grow and produce food. But too much nitrogen in the wrong place can cause problems.

Excess nitrogen can contaminate groundwater and waterways. In these aquatic environments, too much nitrogen can fuel harmful algal blooms.

The algae quickly use up all the oxygen in water bodies. This can lead to dead zones, which are areas with too little oxygen to support life.
Woodchip bioreactors are one way to reduce the amount of nitrogen entering waterways. The bioreactors have several advantages over other denitrifying techniques.

Bioreactors can consistently reduce 30-50% of nitrogen compounds from water. “Some bioreactors can achieve even higher reductions,” adds Schaefer.

“Bioreactors require very little land to be taken out of crop production,” says Schaefer. “Plus, they require very little maintenance.”

The bioreactors also do not impact the effectiveness of farm tile drainage systems. This means water in fields can still be drained to help prevent flooding.

One challenge with woodchip bioreactors is the settling and breakdown of the woodchips. This affects how efficiently the bioreactors work.

The researchers found that the woodchips closer to the entryway of the bioreactors settled and broke down faster than woodchips further inside.

That’s an important finding. Woodchips near the bioreactor inlets can be replenished without having to excavate the entire bioreactor. Additionally, the researchers determined that the first three-quarters of the bioreactors was where most of the nitrogen compounds were removed from water.

That means replacing the woodchips near the entry point of a bioreactor could prolong the lifespan.

The team also studied the amount of time any given drop of water spends within the bioreactor. This measurement is called the hydraulic retention time.
“Hydraulic retention time is one of the main criteria for designing denitrifying bioreactors,” says Schaefer. “We wanted to understand the impact the retention time has on all facets of bioreactor performance.”

The researchers tested three different hydraulic retention times: 2 hours, 8 hours, and 16 hours. Most changes seen in the bioreactors over time were similar for the different retention times tested.

However, woodchips decomposed faster when the hydraulic retention time was 2 hours. But those bioreactors still removed nitrogen compounds from water effectively.

Schaefer and colleagues are now aiming to have a better understanding of how the bioreactors work over even longer periods of time.

Abby Schaefer is a researcher and engineer at Iowa State University. This work was supported by the Iowa Nutrient Research Center.

Click here to watch a video about another researcher studying woodchip bioreactors.

Camp Life – is the Best Life.
By: Jenna Hoyt, Extension Educator - 4-H Youth Development

2020 hit the Ohio 4-H Camping Program hard. Early in the new year, Counselors, staff, volunteers, and deans were planning hard and re-planning for the unknown. Then in the spring of 2020, we learned due to this thing called COVID, Camp as we knew it was a no-go. Our Counselors, Staff and Campers rose to the challenge of holding virtual camp activities, campfires, and camp-in-a-box. Now in 2021, we are happy to be back and in-person at Camp Whitewood and nothing compares to the sights and sounds of camp and counselors singing, as they travel from archery to swimming or anywhere in between.

This week, 96 campers and 24 counselors along with 3 adult deans, joined us for a space themed adventure at the 2021 Ashtabula County 4-H Camp. Special events like...
the Tin-Foil Fashion Show, Glow Night, Talent Show, SPIN into AGRISCIENCE - Cool Chemistry and Sphero Bolt all added unique elements to the week. Not only was space and STEM the focus this week, but so were relationship building, communication and building leadership skills. Camp is a community that enriches lives and changes the world. Camp is the place to try new things, have new adventures and make lasting memories. It helps strengthen one’s journey, builds leaders, and allows for youth to face challenges in a fun and safe environment.

Special thanks to our amazing Counselors – Brooke, Hannah, Bella, Kayle, Faith, Shelby, Megan, Grace, Abbey, Summer, Katie, Lillian, Lauren, Emily, Darron, Alex, Johnny, John, Jon, Dan, Max and Zach; adult Deans - Garrett, Jesseca and Kate; our Nurse - Amanda, the staff at Camp Whitewood and our Camp Director - Abbey Averill for an amazing experience. What a week! What an adventure! Camp on!

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Jenna Hoyt serves as Ashtabula County’s 4-H Youth Development Extension Educator for Ohio State University Extension and may be reached at 440-576-9008 or hoyt.88@osu.edu

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Northeast Ohio Agriculture

OHIO STATE UNIVERSITY EXTENSION
Ashtabula, Portage and Trumbull Counties
Now’s a Great Time to Plan, and Assess Forage Inventory
By: Chris Penrose, OSU Extension Educator, Agriculture and Natural Resources, Morgan County

Since May 21st, I have had three great chances to make hay and was lucky enough to finish last week before the rains arrived, I was lucky. I know other areas have not had a chance or just got started. When we finish first cutting hay, it seems to me to be a great time to assess our pasture condition and hay supplies. We will now know how much hay we have and how much more we will need, plus a little extra just in case it turns dry. Do you or will you have enough once first cutting is finished? Are your pastures holding up well?

Options: If you are going to have plenty of hay, can you graze some of those fields? It is always cheaper to graze than to make hay. Speaking of hay, prices are good right now; if you don’t need the fields to graze, can you make some extra to sell if you need the income? If you are short on hay, can you get enough in subsequent cuttings? If not, have you recently soil tested your fields? Improving fertility will help improve yields for the rest of the season.

How are your pastures holding up? So far this year, it looks like many are doing well. In my case, all my hay fields but one can be grazed providing flexibility for either more hay production or more pasture.

When I think about other things we can do for livestock feed if it will be short this winter, I believe the cheapest feed we can provide is corn stalks after harvest. Look around. Are there any corn fields in the area that could be grazed after harvest? I have seen it done with temporary fence built in a short period of time. How about forage fields that have not been utilized from neighbors that could be grazed for very little charge?

The next option for additional forages is to stockpile fields to graze in the fall or early winter. All you need to do is make a final clipping, harvest or grazing of a field and let it sit and grow. Recent research confirms that adding nitrogen fertilizer will increase yields. A good recommendation is to apply 100# of urea per acre when you start to stockpile. Generally speaking, the earlier you start to stockpile the higher the yields will be and the lower the quality. Conversely, the later you start, the lower the yields and higher the quality. Fescue can be grazed well into the winter but I suggest grazing orchardgrass before the end of the year since it dies back more in cold weather.
Another option is to plant something. If you have fields that need to be re-seeded or you have small grain fields that are or will be harvested, brassicas such as turnips, or small grains like oats and cereal rye are good options to plant later in the summer. You can also plant a combination of small grains and brassicas.

Finally, fertility can go a long way to improving forage yields. If your pH is low, applying lime after first cutting is a great option. If we can correct soil acidity before applying fertilizer, production will be optimized. For me, I have the lime truck coming in this week to finish applying lime on my hay fields now that first cutting is finished, and I hope to fertilize and even stockpile later on in the season for added forages this year and beyond.

On my farm, I think I reach a milestone when I finish first cutting as it is the bulk of feed that I will need to make it to next year and I feel like I have accomplished a lot. I also like to plan and assess my potential needs at this point because the sooner we determine our needs, the more options we will have and more time to execute them.

**ODA Takes Action to Contain Box Tree Moth**


The U.S. Department of Agriculture’s (USDA) Animal and Plant Health Inspection Service (APHIS) has identified box tree moth (*cydalima perspectalis*) in the United States. This is the first detection of this invasive species in the nation.

The Ohio Department of Agriculture (ODA) was made aware that potentially infested boxwood plants were shipped to several Ohio nurseries and greenhouses from a supplier in Canada between August 2020 and April 2021. ODA responded to the Ohio facilities that received these plants, immediately stopped the sale of boxwood, and is working with the close cooperation of the facilities to destroy all of the high-risk plants from these shipments.
The box tree moth can significantly damage and potentially kill boxwood plants if left unchecked. The insect is native to East Asia and has become a serious invasive pest in Europe, where it continues to spread. The larval stage of the pest, which are caterpillars, leave behind a silky webbing while feeding. Box Tree moth is found mostly infesting boxwood shrubs, but euonymus and holly species can also be hosts.

On May 26, 2021, APHIS issued a Federal Order to halt the importation of host plants from Canada, including boxwood (*Buxus* spp.), Euonymus (*Euonymus* spp.), and holly (*Ilex* spp.). ODA will continue trapping and visual inspection for the box tree moth throughout the growing season.

Visit ODA’s Division of Plant Health website for more information about invasive pests in Ohio.

**What is Going on with the Birds??**

By Marne Titchenell

Source: [https://bygl.osu.edu/index.php/node/1808](https://bygl.osu.edu/index.php/node/1808)

Recently, there have been reports of sick or dying birds found around Ohio and in nearby states. These birds often have swollen eyes, discharge from their eyes that may appear crusted, or a lack of clarity to the eyes. Affected birds may also exhibit neurological signs, for example their head may hang to one side then flop to the other side. In the above photo, taken last week by Kristi Anderson and posted to the Preservation Parks of Delaware County Facebook page, an American robin is displaying symptoms of the illness.

In late May of this year, wildlife biologists in Washington D.C., Virginia, Maryland, and West Virginia began received reports of sick and dying birds. Since then, reports have surfaced in additional states, including Ohio.
Which birds are being impacted?
The illness appears to affect multiple species of birds. In Ohio, primary bird species affected include blue jays, common grackles, house sparrows, European starlings, and American robins. Other common backyard birds may also be affected. Currently, no reports exist of other animals being impacted by this illness or its symptoms.

What is causing the illness?
Currently, the cause of the bird deaths and/or symptoms are unknown. Connections to pesticide exposure, the recent cicada emergence, and a possible viral illness are being explored. That said, no conclusions as to the cause of the illness have been made at this time. Diagnostic laboratories, including the USGS National Wildlife Health Center, are currently accepting and analyzing samples to learn more about the illness and to determine the cause.

What can you do?
Report sick or dying birds.
1) As the cause is still unknown, specimen submission is critical at this stage. Please contact your nearest wildlife rehabilitator if you find a sick bird. To track the spread of the disease, the ODNR-Division of Wildlife is accepting reports of dead birds through their online reporting system a: https://apps.ohiodnr.gov/wildlife/speciessighting/. Choose ‘Bird - Diseased/Dead’ in the ‘Species’ drop-down menu.

2) Avoid touching sick or dead birds by wearing disposable gloves and taking other precautions. USGS recommends disposing of dead birds in a sealable plastic bag with household trash.

Take down your bird feeders and empty your bird baths for 7—10 days.
1) The National Wildlife Health Center recommends temporarily removing bird feeders and bird baths “during a disease outbreak observed at bird feeders or when sick and
dead birds are consistently turning up at a feeder to prevent congregation of infected and non-infected birds at the feeding site."

Clean and disinfect bird feeders and bird baths.
1) Clean bird feeders and bird baths with a 10% household bleach solution (9 parts water:1 part bleach) and remove any spilled and potentially contaminated feed from under the feeder.

2) Clean the feeders, bird baths, and any items contaminated with bird droppings in an outdoor space or in another area of your home that is not used for food preparation or bathing. Some avian pathogens, such as Salmonella, can cause sickness in people and cleaning bird feeders and baths with you and your families health in mind is very important.

3) Remember, even when there isn’t an outbreak, it’s still important to regularly clean your bird feeders and baths to reduce the spread of other diseases that may spread among songbirds

But won’t the birds go hungry/thirsty if I take down my feeders and bird baths?
Birds are hardy and resourceful. A temporary lapse in feeder food/water likely won’t set them back too much. More importantly, summer is when plants are producing nectar, seeds, fruits, and attracting insects, all of which serve as food for birds. There is often an abundance of natural foods for birds this time of year. Remember also that birds have the ability of flight, allowing them to travel further distances if needed to find food and water. Right
now, it’s important to keep the safety of the birds a priority and take a break from feeders and baths until more is known about this outbreak.

**Note:** This is a developing problem and I will be posting updates as more is discovered about this illness. Stay tuned for more info!
2021 ODA Clean Sweep: Portage County

DATE: Tuesday August 17th
TIME: 9 AM - 3 PM
LOCATION: Deerfield Ag Services, 9041 US-224, Deerfield, Ohio 44411

Do you have old unwanted or unused pesticides? This year the NE Ohio Clean Sweep Program is being held at Deerfield Ag Services. This is a FREE service but is intended for farm chemicals only. Paint, antifreeze, solvents, and household or non-farm pesticides will not be accepted.

For more information: Scan the QR code, go to https://go.osu.edu/portagecleansweep
or call the Portage County Extension Office at 330-296-6432