

COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES**February 3 Issue (Edition #80)**

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Thank You Ohio Dairy Producers from Dr.
Bill Weiss

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Hello Coshocton County! So who do we believe? Yesterday, Buckeye Chuck emerged from his hole in Mansfield, Ohio and predicted an early spring. Meanwhile Punxsutawney Phil emerged from his burrow in Pennsylvania and predicted six more weeks of winter. I tried to wake up our personal groundhog family but they never emerged from their den in our hayfield. Our nearby forecast indicates winter and colder temperatures are going to linger over the next week. There is still time for an early spring, but for that we will just have to take it one day at a time.

It looks we are for some low temperatures setting in this weekend. Make sure to make plans for these lower temperatures for your livestock. Remember their increased energy requirements.

Remember, our virtual OSU Extension programs are rolling on. A reminder you can check out all the offerings at: <https://agmr.osu.edu/programming>. Stay safe and be well!

Sincerely,

David L. Marrison

Coshocton County OSU Extension ANR Educator



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

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2021 Corn College and Soybean School Slated for February 11

By: Mary Griffith, Amanda Douridas and Laura Lindsey

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-03/corn-college-and-soybean-school>

The Agronomic Crops Team will host a virtual Corn College and Soybean School on February 11, 2021. Corn College is in the morning, from 9:00 – 12:00pm, with Soybean School in the afternoon from 1:00-4:00pm. Each program will feature updates from OSU Specialists. CCA CEUs are available. The schedule for the day is as follows:

Corn College, 9:00 am - 12:00 pm

- Corn Management for 2021, Peter Thomison, 1.0 CM CCA CEUs
- Meeting Nutrient Needs in Corn, Steve Culman, 1.0 NM CCA CEUs
- Disease Management, Pierce Paul, 1.0 PM CCA CEUs
- Insect Management, Andy Michel, 1.0 PM CCA CEUs

Soybean School, 1:00 - 4:00 pm

- Soybean Management for 2021, Laura Lindsey, 1.0 CM CCA CEUs
- Weed Management, Mark Loux, 1.0 PM CCA CEUs
- Disease Management, Anne Dorrance, 1.0 PM CCA CEUs
- Insect Management, Kelley Tilmon, 1.0 PM CCA CEUs



This program is free to attend. Register at www.go.osu.edu/agronomyschools.

Upcoming Cold Temperatures & Winter Wheat

By: Laura Lindsey, Ed Lentz, and Pierce Paul

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-03/upcoming-cold-temperatures-and-winter-wheat>

The upcoming forecast of cold temperatures has sparked some concern about damage to the winter wheat crop.

Fortunately, winter wheat is very resistant to cold temperatures during the months of December, January, and February when the plant is dormant. During these months, winter wheat can withstand below freezing temperatures, especially when there is snow cover. In early 2019, Ohio experienced polar vortex temperatures without snow cover. However, no (or minimal) damage was observed in winter wheat (Figure 1).

Besides wheat's natural ability to be resistant to cold temperatures, plant breeders have developed wheat varieties that are adapted to Ohio's environments. Occasionally some companies have tried to push North varieties adapted to the Mid-Atlantic region that may be affected by extreme cold. However, most often wheat that has not survived cold temperatures was planted too late for adequate growth, planted too shallow to protect the crown, or too much water on low spots before the cold temperatures.



Figure 1. Polar vortex temperatures with no snow cover in early 2019 resulted in survival of winter wheat.

Soil Health Webinar Focuses on Cover Crop Management

By Mary Griffin, OSU Extension

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-03/soil-health-webinar-focuses-cover-crop-management>

The February 4th session of the webinar series The Dirt on Soil Health: Investing Below the Surface will focus on cover crop management. Dr. Hans Kok will begin by reviewing important management considerations for planting and establishing successful cover crop stands. Dr. Kok is an independent consultant based out of Indianapolis and project director with the Conservation Technology Information Center, as well as the lead agronomist for the Indiana In-Field Advantage Network. Eric Niemeyer will join Dr. Kok for the Q&A session. Eric is a Delaware County farmer who has been planting cover crops on his entire farm since 2014.

The session is free to attend, and begins at 8:00am EST on Thursday, February 4th. 0.5 SW CCA CEUs are available for attending the live session. Register at www.go.osu.edu/soilhealth2021

This is the fourth session of a series focused on practical steps to improve soil health on-farm. Recordings of past presentations in this series are available online <https://agcrops.osu.edu/events/webinar-recordings>

Ag Tech Tuesday Webinars Highlight 2020 eFields Results

By Elizabeth Hawkins

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-03/ag-tech-tuesday-webinars-highlight-2020-efields-results>

The Ohio State Digital Ag Team's Ag Tech Tuesday webinars are continuing this month! The online February series will cover results from several 2020 eFields trials and be held each Tuesday starting at 10:00 EST for 1 hour. There will be plenty of time for participants to ask questions. The following provides details for the 2021 Ag Tech Tuesday sessions.

February 2 - Improving Profitability in Corn Production

Weather and Climate Trends, Aaron Wilson

Irrigation, Amanda Douridas and Will Hamman

Corn Seeding Rates, Chris Zoller

SmartFirmer Seeding Rate, Elizabeth Hawkins

February 9 - Pushing Soybean Productivity in Ohio

Boots on the Ground, Laura Lindsey

Local Boots on the Ground Results, Mary Griffith

Foliar Fertilizer, James Morris

Soybean Seeding Rates, Ken Ford

Sulfur on Soybeans, John Barker

February 16 - Tech to Improve On-Farm Efficiency

Manure On-the-Go Sensing, Chris Shoup

Yield Monitor Data, Alysa Gauci

Virtual Reality and Field Demonstrations, Brooke Beam

Equipment Technology, Andrew Klopfenstein

February 23 - eFields Small Grains, Forages, Soil Health, and Water Quality Results

Production Budgets and Custom Rates, Barry Ward

Winter Annual Forages, Jason Hartschuh

Barley Cohort, Eric Richer

Hemp, Lee Beers

Soil Health Testing, Boden Fisher

Registration for Ag Tech Tuesdays is free but required. Just visit go.osu.edu/AgTechTues to register. If you have any questions, please contact Elizabeth Hawkins (hawkins.301@osu.edu)



2021 Cow-Calf Outlook Review

By: Garth Ruff, Beef Cattle Field Specialist

Source: <https://u.osu.edu/ohioagmanager/2021/02/01/2021-cow-calf-outlook-review/>

For beef producers in Ohio and across the U.S., 2020 was no walk in the park for several reasons related to the COVID-19 pandemic. On January, 26 2021 the OSU Beef Team hosted a Cow-Calf Outlook program featuring Dr. Kenny Burdine, Extension Livestock Marketing Specialist from the University of Kentucky. In this presentation Dr. Burdine highlights reviews the impacts of COVID on the beef cattle industry, some management considerations for beef producers looking to add value to feeder cattle, touches on rising feed prices, and looks at the feeder cattle markets in the coming year.

For the full presentation <https://www.youtube.com/watch?v=pUtWYuo1zR0>

We've also pulled some short clips showing the value of increased management. One management consideration is to shorten and control the breeding season to increase marketing power via increasing uniformity and group size. <https://www.youtube.com/watch?v=IFkOGHEJrgA&t=87s>

Another management toll that will increase the value of calves is to castrate bull calves and market steers, as selling steer calves will be rewarded in the marketplace. <https://www.youtube.com/watch?v=aSOTdDSiZpY>

CFAP Payments Halted Until Review Conducted by Biden Administration

by David Marrison, OSU Extension

Source: <https://u.osu.edu/ohioagmanager/2021/01/29/cfap-payments-halted-until-review-conducted-by-biden-administration/>

In accordance with the Regulatory Freeze Pending Review memo issued by the White House on January 20, the United States Department of Agriculture has suspended the \$2.3 billion of additional assistance to the Coronavirus Food Assistance Program put in place during the final days of the Trump Administration.

The Trump administration had previously announced on January 15 providing additional assistance of CFAP expanding eligibility for some agricultural producers and commodities as well as updating payments to accurately compensate some producers who already applied for the program. The expanded eligibility was targeted primarily for contract pork and poultry producers and others previously excluded from the relief payments.

It should be noted that Farm Service Agency offices will continue to accept applications during the evaluation period although no payments will be made while the program is reviewed. The supplemental CFAP payments

(January 15 additional assistance) were to build upon the \$23.6 billion in assistance provided in Round 1 and 2 of CFAP. USDA's Farm Service Agency will still continue to accept new or modified CFAP applications from eligible producers January 19 through February 26, 2021.

In a notice on the Farm Service Agency website the Biden administration stated "In the coming days, USDA and the Biden Administration intend to take additional steps to bring relief and support to all parts of food and agriculture during the coronavirus pandemic, including by ensuring producers have access to the capital, risk management tools, disaster assistance, and other federal resources."

Farm Office Team Note: It is not irregular for a new Presidential Administration to freeze rule making at the start of their administration as the transition occurs from one administration to the next. Our team will be monitoring the situation and will provide updates. Make sure to register for the next Farm Office Live webinars on February 10 & 12 at which time updates will be given on this issue and many more. Register at: <https://farmoffice.osu.edu/farmofficelive>

Sources:

- Coronavirus Food Assistance Program – Additional Assistance. Access at: <https://www.farmers.gov/cfap>
- Regulatory Freeze Pending Review. Access at: <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/regulatory-freeze-pending-review/>
- USDA Offers Additional Assistance for Certain Producers Through Coronavirus Food Assistance Program <https://www.usda.gov/media/press-releases/2021/01/15/usda-offers-additional-assistance-certain-producers-through>

Planting Trees

by: Deb Bigelow, Coshocton Soil & Water Conservation District
Published January 21, 2021 Issue of Farm & Dairy

Have you ever planted a tree and 20 years later been amazed at how much it has grown? Many years ago, I took white pine seedlings to my Grandson's pre-school class and gave them instruction on planting the 3 year old seedlings. Today, that tree stands over 20 feet tall!

Trees provide us with many benefits necessary for survival, including clean water by preventing soil erosion and flooding, shade, and food. Trees absorb carbon dioxide, removing and storing the carbon while releasing oxygen back into the air. In one year, an acre of trees can provide enough oxygen for 18 people. Trees can also increase property values and improve our mental health.

Many soil and water conservation districts (SWCD) across Ohio hold tree seedling sales in the winter months for spring pick-up. These programs offer the opportunity for individuals to develop small areas of reforestation, wildlife enhancement, or additions to home landscaping at an affordable cost. Tree offerings are different at each SWCD but most of them are tree and shrub seedlings with bare roots. Most of the packets are about the size of a grocery bag with the tree roots wrapped to keep them moist. Orders are generally taken from January through March with tree pickup sometime in April.

Planting the right tree for your purpose is the first step in a successful planting. Although some general guidelines can be given, every situation is unique. Soil properties, moisture levels, and available light vary on every site. Species to plant should be selected carefully based on site conditions, planting objectives, species requirements, and diversity. Planting a diversity of species will limit potential negative impacts from unforeseen pest and disease outbreaks. Most SWCD tree order forms have a chart that will give you this information for the species they are offering.

Once you have purchased and picked up your seedlings, the best chance for survival is to plant them immediately. Spring seedlings are at the end of their dormant season. Like all trees they need sunlight, carbon dioxide, oxygen and water to get a fresh start each spring. The longer you wait to plant your trees the fewer will survive regardless of the care given. Planting trees directly into the ground is recommended. Planting your

seedling in a pot will not allow the roots to develop as they should.

Other tips for planting bare root seedlings include:

- Never let roots dry completely or leave seedlings immersed in water for long periods as they will drown. These are the most common causes of seedling death.
- Make your planting hole deep enough to accommodate the roots. It is better to prune the roots with scissors than to wad or curl the roots to make them fit in your planting hole. Plant so that the roots are free, not cramped. Trim any broken roots. Do NOT trim the tap root.
- MORE
- Plant the seedling at same depth as it was in the nursery. Ground level should be where the roots stop and the stem begins.
- Water thoroughly. Use only water soluble fertilizer with root stimulating ingredients.
- Mulch, mulch, mulch! Dried grass clippings, ground up leaves or commercially available organic mulches will suppress weeds and hold in moisture.
- Water your seedlings faithfully for the first 2 years.

Early ordering gives you the best chance to get the variety and amount of seedlings you want. Contact your local soil and water conservation district and ask about their tree seedling program. If they do not coordinate a local program they can give you the names of surrounding SWCDs that do. Remember the old Chinese proverb: "The best time to plant a tree was 20 years ago, the second best time is now."

Coshocton SWCD Tree Sales

It's time for the Coshocton Soil & Water Conservation District's (SWCD) Annual Tree Seedling Sale. Last year's sale took a sharp turn when the "Stay at Home" order was given, but the District was still able to get around 9000 trees to their customers. This year's sale has about 5 fewer varieties than in the past to simplify the sale during this unpredictable time. Tree varieties are available in packs of 5, 25, or 100 seedlings, and this year the American Plum, Redbud, Red Osier Dogwood, and River Birch are also available as single 3 to 4 foot saplings.

Other items that are available this year include wildflower seed packets, Plantskydd wildlife repellent, tree tubes, and marking flags. As in past sales, seedlings can be ordered with the form included in this newsletter.

All orders are filled on a first-come, first-served basis. A paper order form is attached to the end of this newsletter. The deadline for turning in paper order forms is Monday, March 15. SWCD will also be partnering with Licking SWCD to provide an online ordering option for the sale beginning on February 1. Online orders can be submitted through Monday, March 22, but the available varieties may be quite limited by that time.

The pick-up day for all orders will be Friday, April 16 at the Coshocton SWCD Office. More information about the sale can be found at: <https://www.coshoctoncounty.net/swcd/>. Additional questions can be answered by calling 740-622-8087, ext. 4 or by emailing samanthadaugherty@coshoctoncounty.net.

2021 Tree Sale Order Form

Name: _____
Address: _____
Phone: _____ Email: _____

How would you like to receive the pick-up reminder?

☐ Postcard or E-mail ☐

Would you like to receive our quarterly newsletter?

Yes ☐ No ☐ - Already Receive ☐

Mail order form with payment to:
Coshocton SWCD
724 S. Seventh Street, Rm 120
Coshocton, OH 43812

Order Forms must be received by 4:00 p.m. on Monday March 15th and are subject to availability. If you have any questions, please call (740) 622-8087, ext. 4. Additional forms are available at our office. More information about the tree sale and online ordering information is available on our website at www.coshoctonswcd.org

Important Information

There is no limit on the number of packets that can be ordered, but all orders are subject to availability. We suggest ordering as soon as possible, since there are a set number of seedlings available. Orders are filled on a first-come, first-served basis. Anyone can order trees regardless of county residence, but trees will not be delivered or mailed. Payment must be included with your order.

Seedling sizes are 6 to 18 inches depending on variety; sapling varieties are approx. 3 to 4 feet tall. All trees are state/federally inspected and are bare root seedlings. Due to the number of variables involved, we do not guarantee the success of the seedlings once they are in your possession. Reasonable substitutions may be made based on availability.

Projected pick up date is Friday, April 16th at the Coshocton SWCD Office. Please be sure to specify on the order form how you would like to be notified of the pick up date.

Please Indicate Quantity of Packs for Each Variety			
Native Conifers	Pack of 5 9"-18" seedlings	Pack of 25 6"-9" seedlings	Pack of 100 6"-9" seedlings
Eastern White Cedar	\$10.00	\$20.00	\$60.00
White Pine			
Native Small Trees & Shrubs	Pack of 5 10"-18" seedlings	Pack of 25 6"-12" seedlings	Pack of 100 6"-12" seedlings
American Plum	\$10.00	\$30.00	\$90.00
Chokecherry			
Pawpaw			
Redbud			
Red Osier Dogwood			
Witch Hazel			
Native Large Trees	Pack of 5 12"-18" seedlings	Pack of 25 6"-12" seedlings	Pack of 100 6"-12" seedlings
Black Walnut	\$10.00	\$30.00	\$90.00
Ohio Buckeye			
Red Maple			
Red Oak			
River Birch			
Swamp White Oak			
Tuliptree			
White Oak			
Saplings	Cost	Full Height	Number of Trees
One single 3' to 4' sapling			
American Plum	\$10.00	15'-25'	
Redbud	\$10.00	25'-30'	
Red Osier Dogwood	\$10.00	20'-30'	
River Birch	\$10.00	40'-70'	
Additional Items	Cost	Qty.	
Wildflower Seed Packet	\$5.00		
Plantskydd Repellent - Powder Concentrate	\$20.00		
Plantskydd Repellent - Pre-mixed Spray	\$20.00		
Tree Tube and Wood Stake	\$5.00		
Marking Flags	25	\$6.00	
Check <input type="checkbox"/> White <input type="checkbox"/> or Pink <input type="checkbox"/>	50	\$7.00	
	100	\$8.00	
Grand Total Enclosed:			

2021 Woodland, Water and Wildlife Conference

By: Amy Stone, Marne Tichenell & Kathy Smith

The Ohio Woodland, Water and Wildlife (WWW) Conference has been a long standing tradition for natural resource professionals. We have been in Mansfield, Ohio the first Wednesday in March for as long as we can remember. In fact, last year, this was one of the last in person conferences before we went virtual! This conference, that had been a one day conference with three concurrent educational tracks, is going virtual. Each track - Woodlands, Water and Wildlife - will have its own day. Monday, March 1 will be the Woodland topics; Tuesday, March 2 will be the Water topics; and Wednesday, March 3 will be the Wildlife topics. Participants registering for the conference can attend all of sessions on any of the three days.



For more information about the conference, including the class schedules for each day, check out the Ohio Woodland Stewards Website at: <https://woodlandstewards.osu.edu/events/2021-ohio-woodland-water-and-wildlife-conference>

The registration link can be found on the Ohio Woodland Stewards Website, or if you are ready to sign up, click here: <https://web.cvent.com/event/41ecf631-83bd-4af5-9a85-4035dc765126/regProcessStep1>

Thank You Ohio Dairy Producers from Dr. Bill Weiss

By: [Dr. Bill Weiss](#), Professor, Department of Animal Sciences, The Ohio State University

I came to The Ohio State University in January 1981 as a Ph.D. student working with Dr. Russ Conrad on the nutritional value of heat-damaged forages for dairy cows. About a year after I graduated, Dr. Conrad retired and a faculty position at OARDC in Wooster in the Department of Dairy Science (this was before we became Animal Sciences) opened up. It was my dream job, mostly research in dairy nutrition plus some Extension work. I applied for the position, and apparently, I convinced them I could do the job and have been doing this job for the past 33 years.



But all good things have to come to an end, and it is time for me to move on to other adventures. Therefore, I retired at the end of January 2021. During my tenure at OSU, I have met and worked with lots of dairy farmers, nutritionists, veterinarians, and Extension agents (now educators). These relationships were very much two-way streets. I hope I provided you with useful research and helpful answers and I know you never failed to stimulate my thinking about a problem you encountered or perhaps just an observation you made. Those problems and observations often lead to years of research, and sometimes, we even came up with an answer to a problem or question. You were always willing to help when I needed research samples or data or had a group of visitors or students that wanted a tour of a dairy farm or feed mill. It has been a great 33 years; thank you for helping me have a successful career.

"The trouble with weather forecasting is that it's right too often for us to ignore and wrong too often for us to rely on it."

By: Patrick Young

2021 Tree Sale Order Form

Name: _____

Address: _____

Phone: _____

Email: _____

How would you like to receive the pick-up reminder?

Postcard or E-mail

Would you like to receive our quarterly newsletter?

Yes - No - Already Receive

Mail order form with payment to:

Coshocton SWCD

724 S. Seventh Street, Rm 120

Coshocton, OH 43812

Order Forms must be received by 4:00 p.m.

on Monday March 15th and are subject to availability. If you have any questions, please call (740) 622-8087, ext. 4. Additional forms are available at our office. More information

about the tree sale and online ordering information is available on our website at

www.coshoctonswcd.org

Important Information

There is no limit on the number of packets that can be ordered, but **all orders are subject to availability. We suggest ordering as soon as possible, since there are a set number of seedlings available.** Orders are filled on a first-come, first-served basis. Anyone can order trees regardless of county residence, but trees *will not be delivered or mailed.* **Payment must be included with your order.**

Seedling sizes are 6 to 18 inches depending on variety; sapling varieties are approx. 3 to 4 feet tall. All trees are state/federally inspected and **are bare root seedlings.** Due to the number of variables involved, we do not guarantee the success of the seedlings once they are in your possession. Reasonable substitutions may be made based on availability.

Projected pick up date is Friday, April 16th at the Coshocton SWCD Office. Please be sure to specify on the order form how you would like to be notified of the pick up date.

Please Indicate Quantity of Packs for Each Variety			
Native Conifers	Pack of 5 9"-18" seedlings	Pack of 25 6"-9" seedlings	Pack of 100 6"-9" seedlings
	\$10.00	\$20.00	\$60.00
Eastern White Cedar			
White Pine			
Native Small Trees & Shrubs	Pack of 5 10"-18" seedlings	Pack of 25 6"-12" seedlings	Pack of 100 6"-12" seedlings
	\$10.00	\$30.00	\$90.00
American Plum			
Chokecherry			
Pawpaw			
Redbud			
Red Osier Dogwood			
Witch Hazel			
Native Large Trees	Pack of 5 12"-18" seedlings	Pack of 25 6"-12" seedlings	Pack of 100 6"-12" seedlings
	\$10.00	\$30.00	\$90.00
Black Walnut			
Ohio Buckeye			
Red Maple			
Red Oak			
River Birch			
Swamp White Oak			
Tuliptree			
White Oak			
Saplings One single 3' to 4' sapling	Cost	Full Height	Number of Trees
American Plum	\$10.00	15'-25'	
Redbud	\$10.00	25'-30'	
Red Osier Dogwood	\$10.00	20'-30'	
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Additional Items		Cost	Qty.
Wildflower Seed Packet		\$5.00	
Plantskydd Repellent - Powder Concentrate		\$20.00	
Plantskydd Repellent - Pre-mixed Spray		\$20.00	
Tree Tube and Wood Stake		\$5.00	
Marking Flags Check White or Pink	25	\$6.00	
	50	\$7.00	
	100	\$8.00	
Source : Website		Grand Total Enclosed:	

Marking Flags: Available in pink or white; each flag is 4" x 5" on a 30" wire.

Tree Tube and Wood Stake: A 4' tube with wood stake that can improve seedling survival and reduce wildlife damage.

Plantskydd Repellent: Contains 1 lb of powder concentrate that will treat over 200 plants or 1 qt of pre-mixed spray that will treat around 100 plants. Plantskydd can help prevent damage to seedlings from browsing deer, rabbits, and opossum.

Wildflower Seeds: 1 ounce of seeds per packet that plants 100 to 200 square feet. Mix includes a variety of perennials, grasses, and showy annuals.

Seedling Varieties in alphabetical order	Mature Height	Mature Width	Growth Rate	Sun Light	Mois-ture	Soil PH
American Plum edible fruit, fragrant flowers, attracts birds	15'-25'	15'-25'	F	S	D, M	N
Black Walnut edible fruit, fragrant flowers, good shade	75'-100'	20'-40'	M	P,SH	M,D	A
Chokecherry edible fruit, showy white flowers	20'-30'	15'-20'	M	S, P, SH	M	N
Eastern White Cedar (Arborvitae) ornamental, wet footed	40'-45'	12'-15'	S,M	S,P	M,W	N
Ohio Buckeye attracts wildlife, Ohio's state tree	20'-40'	20'-40'	M	S, P, SH	M, W	A
Pawpaw edible fruit, wildlife	15' - 30'	15' - 30'	F-M	S, P	M, W	A, N
Redbud adaptable, edible pink-magenta flowers	25' - 30'	26' - 33'	M	S, P	M, W	B
Red Maple lovely fall foliage, wildlife	40'-70'	30'-50'	M	S, P	W	A
Red Oak tolerates dry conditions, timber, landscaping	50' - 60'	50' - 60'	F	S	D, M	N
Red Osier Dogwood spring flowers, red/burgandy autumn color	20'-30'	20'-25'	M-S	S,P	M	A
River Birch unique flaky bark, wildlife	40'-70'	40'-60'	F	S, P	W, M	N
Swamp White Oak adaptable, bottomlands, timber, wildlife	50' - 70'	50' - 70'	M-S	S, P	M	A
Tuliptree showy flowers, attracts wildlife, medicinal	60'-90'	30'-50'	F	S	M	A
White Oak timber, wildlife, long-lived, ornamental	50' - 70'	50' - 70'	M-S	S, P	D, M, W	N
White Pine timber, windbreak, wildlife	60'-80'	20'-40'	F	S	M	A, N
Witch Hazel attractive fall color, wildlife, medicinal	15'-20'	15'-20'	M	P, SH	M	A

Growth Rate: F = fast 12"+/year, M = medium 6"-12"/year, S = slow 2"-6"/year

Light Required: S = sun, P = part sun/part shade, SH = shade **Soil Moisture:** D = dry, M = medium, W = wet

Soil pH: A = acidic (6.5 or less), N = normal pH range (6.5 - 7.5), B = basic/alkaline (7.5 or higher)

Links to more information about the tree varieties are available on our website www.coshoctonswcd.org.


2021 **Virtual** Ohio Woodland Water and Wildlife Conference

Join us **Monday March 1st** for our Woodland Presentations, **Tuesday March 2nd** for our Water Presentations and **Wednesday March 3rd** for our Wildlife Presentations.

Registration is \$40 and will give you access to all 3 days presentations and all material posted to support each talk. It also includes the recorded sessions so you can go back and view something you missed or want to review.

Each session is 60 minutes long with additional time for Q&A. ISA, SAF and ODA credits available.

Register Here: go.osu.edu/www2021

	March 1 st - Woodland	March 2 nd - Water	March 3 rd - Wildlife
9:00 AM	Prescribed goat grazing as a tool to manage invasive plants and restore woodlands <i>Matt Davies Assistant Professor in Soil and Plant Community Restoration, CFAES, SENR</i>	Wetlands and Water Quality: the ODNR H2Ohio Program <i>Eric Saas, H2Ohio Program Manager, Christina Kuchle, Northwest Region Scenic Rivers Manager</i>	Ohio's Owls <i>Joseph Lautenbach, Wildlife Biologist, ODNR Division of Wildlife</i>
10:25 AM	Silvicultural Aspects of American chestnut and Implications for Species Restoration <i>Sara Fern Fitzsimmons, Director of Restoration, The American Chestnut Foundation and Penn State</i>	Ohio's Wetland Regulations <i>Mick Micacchion, Wetland Ecologist and Professional Wetland Scientist, Midwest Biodiversity Institute</i>	Invasive Impacts & Native Plants for Wildlife <i>Marne Titchenell, & Amy Stone, OSU Extension, CFAES, SENR</i>
11:40 - 12:30	Lunch		
12:30 PM	Spotting the Spot in Ohio – Spotted Lanternfly Update <i>Amy Stone, Lucas County Extension Educator, OSU Extension, CFAES</i>	The USGS Nonindigenous Aquatic Species Database: actionable tools and data for aquatic invasive species (AIS) management <i>Matthew Neilson, U.S. Geological Survey</i>	Got worms? That might be a problem! Investigating Impacts of Non-Native Earthworms in Hardwood Forests <i>Tara Bal, Assistant Professor, Forest Health, College of Forest Resources and Environmental Science Michigan Technological University</i>
1:55 PM	Herbicide Do's and Don'ts <i>Mimi Rose, Ohio State University Pesticide Education Program</i>	The Great Lakes <i>Phragmites</i> Collaborative: Regional Coordination, Adaptive Management, and New Treatments <i>Kurt Kowalski, U.S. Geological Survey</i>	An Updated Report on Ticks and Tick-borne Disease in Ohio <i>Risa Pesapane, Assistant Professor, Ecosystem and Wildlife Health, CFAES and CVM, The Ohio State University</i>



A collage of diamond-shaped photographs showing various people engaged in agricultural and community activities. The central image features a woman holding a basket of apples and a young child. Other images show people working in fields, harvesting, and interacting with animals.

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

Webinars and Field Days

Date & Time	Title & Description	Event Type
Thursday, January 14, 2021 12:00-1:00PM	Farm Income Tax Update - Barry Ward, OSU Extension This update will arm farm taxpayers with tax information on current critical issues including insight into new COVID related legislation.	Webinar
Thursday, January 28, 2021 12:00-1:00PM	Cooking with Cast Iron – Christine Kendle, OSU Extension Are you not sure what pan to use? How to season it? How you should care for your cast iron cookware? This class is for you!	Webinar
Thursday, February 11, 2021 12:00-1:00PM	QPR (Question, Persuade, Refer) Suicide Prevention – Panel QPR includes how to “ask a question to save a life,” recognizing warning signs, and referring for help.	Webinar
Thursday, February 25, 2021 12:00-1:00PM	Insurance - Get Covered! – Kim Davis, Kim Davis Insurance Agency, LLC Just because you pay an insurance premium doesn't mean you're covered for everything! Don't miss this fun, interactive session discussing all types of insurance.	Webinar
Tuesday, March 2, 2021 5:30-8:30PM	Hands-On Tractor Operation Skill-Builder – Dee Jepsen, Ohio State University Examining the utility of the compact tractor – safety, parts, color coding, hand signals and operation will be discussed in this interactive audience driven session. (May be outdoors weather permitting)	Field Day
Thursday, March 11, 2021 12:00-1:00PM	LOL – Lots of Loans! – Panel Hear from our panel to find the right fit for your needs. Including lines of credit, ag real estate, equipment & building loans/leases, home loans, home equity loans, youth loans, etc.	Webinar
Thursday, March 25, 2021 12:00-1:00PM	The Mystery of Fruit Tree Pruning – Paul Snyder, OARDC Secrest Arboretum This session covers the basics of how and when to prune fruit trees, highlighting the most common backyard fruit tree, the apple tree.	Webinar
Tuesday, April 6, 2021 5:30-8:30PM	Soils and Sustainable Agriculture —Erika Lyon and Heather Neikirk, OSU Extension and Clint Finney, NRCS Jefferson/Harrison What is sustainable for you? Dig into improving the health of your soils and the basics of soil testing services and kits. Explore sustainability and stewardship practices and opportunities for utilization in small farm animal and plant-based enterprises.	Field Day
Thursday, April 8, 2021 12:00-1:00PM	Bury Seeds, Not Stress —Sarah Noggle and Bridget Britton, OSU Extension When you live where you work, there are stressors that can go unacknowledged. Agriculture life brings unique challenges to us personally and professionally. Join us as we identify what makes us unique and talk about coping strategies.	Webinar
Thursday, April 22, 2021 12:00-1:00PM	Reaching Your Educational Goals – Dennis DeCamp, OSU Extension Regardless of age, educational opportunities are always available. Explore options for obtaining and funding education to meet your goals while maintaining a balanced life.	Webinar
Tuesday, May 4, 2021 5:30-8:30PM	Raising Livestock on 5 Acres or Less – Sandy Smith, OSU Extension So you have some land and you want some extra income or a supply of food for your family. This session will investigate all of your options and possibilities.	Field Day
Thursday, May 13, 2021 12:00-1:00PM	Veterinarians: Building a Relationship & Knowing When to Call - TBA A working relationship with your veterinarian can teach you when it's appropriate to try something at home vs. having them out on a call to improve your farm's husbandry & production.	Webinar
Thursday, May 27, 2021 12:00-1:00PM	He Said, She Said: – Emily Marrison, OSU Extension Women in agriculture often work with men in agriculture. Explore ways to improve interpersonal communication for more productive work settings and peaceful home environments.	Webinar

Cancellation Policy: In-person sessions may be cancelled due to university, state or local guidelines on group events. The event will not be rescheduled. No registration fees will be refunded.

Animal Damage Management

WOODCHUCKS

Judy Loven, USDA-APHIS-Wildlife Services

The woodchuck (*Marmota monax*), a member of the squirrel family, is common throughout Indiana. It can be found in open pastures, woodlots, cultivated and fallow fields, and along railroad embankments, ditch banks, roadsides, fence rows, and levees. In cropping areas, woodchucks consume soybeans, corn and alfalfa. The extensive burrowing activities of woodchucks in fields can interfere with farm operations, cause damage to equipment, injury to livestock, and create significant erosion problems in levees, pond dams and railroad embankments. Around private homes, one or two woodchucks are capable of ruining a small garden almost overnight.

Woodchucks should not be viewed as pests only, however; their burrows often provide refuge for other wildlife such as rabbits, opossums, raccoons, skunks, foxes, and even some game birds. They also contribute to the aeration and mixing of the soil through their burrowing activities. Moreover, many people derive enjoyment from watching these rodents since they are one of the few large wild mammals commonly seen during the day. Thus, woodchucks are an interesting part of our wildlife and should be controlled only when they become troublesome.

But chipmunks can also be serious destructive pests when they become numerous around homes and gardens. The burrowing activity of chipmunks can cause significant structural damage by undermining foundations, concrete patios and steps, retaining walls and sidewalks. They may also be destructive to gardens when they dig up and eat bulbs and seeds or attack garden fruits.

IDENTIFICATION

The woodchuck is a stocky animal weighing between 4 and 14 pounds and having short, powerful legs, small ears and a short, bushy tail. The body fur is long, coarse, and grizzled grayish-brown in color. There are four-clawed toes on each front foot and five toes on the hind feet. Its short, stocky appearance gives the impression that the woodchuck crouches close to the ground as it moves about. Thus, the animal is often referred to as a "groundhog."



Woodchuck (groundhog) (Photo Credit: Lesley Mattuchio, www.treknature.com)

BIOLOGY AND BEHAVIOR

The woodchuck is a vegetarian. Various grasses, clover, alfalfa, plantain, and other types of tender green succulents make up its diet. In crop areas, it is especially fond of the soybean plant, but it will also feed on young corn plants and even ears in the milk stage. An adult woodchuck consumes between 1 and 1-1/2 pounds of vegetation daily.

ADULT WEIGHT:	5-10 LBS.
TOTAL LENGTH:	16-20 INCHES
COLOR:	GRIZZLED BROWNISH GRAY
GESTATION:	32 DAYS
LITTER SIZE:	4-6
LIFE SPAN:	4-6 YEARS

The greater part of a woodchuck's day is spent in the burrow presumably sleeping. Feeding periods vary according to weather conditions and the season. During the cool days of early spring, it is most active during the warmer parts of the morning and afternoon. However, during the summer, the warmest parts of the day are spent in the cool burrow and feeding occurs during the very early morning and again at dusk. Woodchucks are least active on cool, rainy days.

Woodchucks enter hibernation beginning mid-October and emerge during February. They mate shortly after emergence, with a single litter of four to six young born a month later (March-April). The young leave the nest in early July to establish their own burrows and territories. Woodchucks live an average of 4-6 years.

BURROW CONSTRUCTION AND WOODCHUCK MOVEMENTS

An understanding of burrow construction and of the movement of woodchucks within and around crop fields is important for effective control programs. Too often, only temporary control is achieved because the number of active burrows and/or the number of woodchucks within a field and its surrounding area is underestimated. Woodchucks usually construct two types of dens: winter dens and summer dens. Winter dens are often located within wooded or brushy areas and serve as hibernation chambers, although occasionally they are used year round. These dens have only one opening, with the hibernation chamber situated below a tree or stump for protection against intruders. The winter den is abandoned by the woodchucks several weeks after they emerge from hibernation.

The animals then move into nearby grassy meadows or crop fields and construct their summer dens. Soybean, clover, alfalfa, and corn fields are particularly favored for summer den locations. Summer dens contain between one and five openings, but typically there is one main entrance and

one or more escape or "plunge" holes. The plunge holes are often well concealed among vegetation and may even be plugged. If a den has been in use for several years or by several generations of woodchucks, the burrow system may be complex, lengthy and contain several openings.

It should also be noted that adult woodchucks often construct more than one summer burrow system within a field. Thus, there are auxiliary burrows as well as main or "home" burrows. Because the auxiliary burrows are used for refuge to escape danger during the animals' daily foraging activities, there may be constant back and forth movement between dens during the summer.

The average burrow system is located about 2-4 feet underground and extends horizontally 15-25 feet (or more) (Figure 1). The main nest chamber is generally located at the end of the burrow system, but additional nests may be constructed in any part of the burrow. The main entrance to the burrow is characterized by a mound of fresh earth around the opening as well as by numerous trails leading to the feeding areas and auxiliary burrow systems. When other animals such as rabbits, skunks, foxes, or badgers are using woodchuck burrows, the fresh earth mound is absent at the entrance. Also, various types of animal remains and feces are often found around the entrances to dens used by skunks, foxes and badgers.

The daily home range of woodchucks varies considerably. In favorable habitats, such as a soybean field, woodchucks may forage only 20-30 yards from their home dens. In less favorable habitats, such as woodlots, road edges, yards, etc., the woodchuck may travel several hundred yards daily to reach feeding areas. Generally, only one or two adult woodchucks will inhabit one acre, although occasionally there may be more. Woodchucks are territorial and defend their dens against other woodchucks except during the breeding season when the adult male and female will occupy the same den.

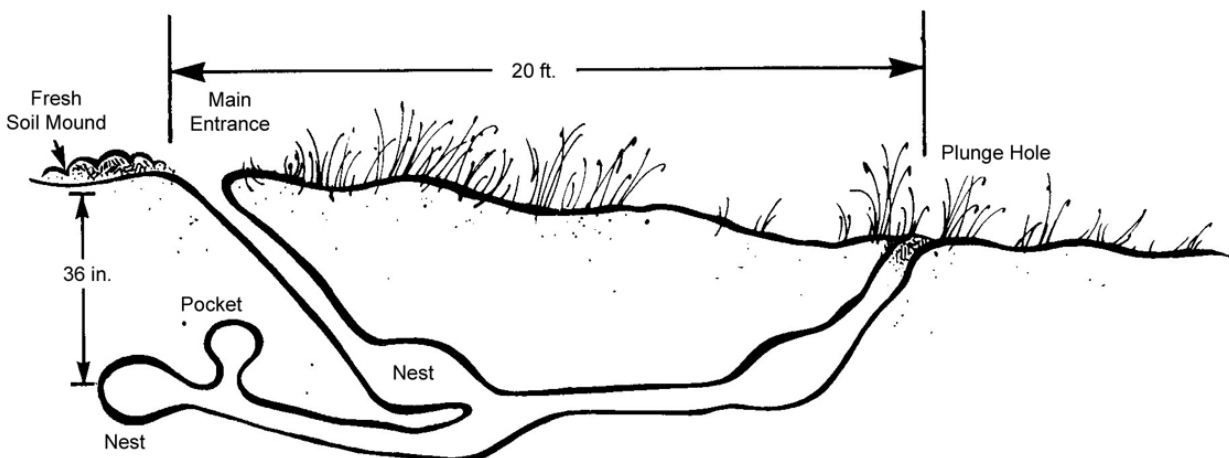


Figure 1. Diagram of a typical woodchuck burrow

CONTROL

Control efforts should be carried out during early spring when active burrows are easy to find, the young woodchucks have not yet scattered, and there is less likelihood of harming other wildlife.

Woodchucks are most practically controlled in crop fields via fumigation of their dens or by shooting. Around buildings or high fire hazard areas, or where it is desirable to control the woodchucks with a nonlethal approach, live-trapping is the safest and most appropriate means.

If the woodchuck population is large, it is important that control programs be systematic and encompass the affected field and areas surrounding the field (Figure 2). Particular attention should be given to well drained protected areas, wooded crop borders and weedy fence rows. All active burrows should be flagged to aid in rechecking and retreating later. If the affected area includes adjoining farms, cooperation should be sought from the neighboring farmers. Without a thorough program and cooperation among land owners, long-term control results are likely to be poor because exterminated woodchucks will be replaced by invading individuals from surrounding areas.

FUMIGATION

Fumigating woodchuck burrows is accomplished using gas cartridges. When ignited, these cartridges release carbon monoxide into the burrow system, killing the woodchuck. Gas cartridges are available from local farm supply stores and some county Extension offices.

Gas cartridges should be used as follows:

1. Locate the main burrow opening (identified by mound of fresh excavated soil) and all other secondary entrances associated with the burrow system.
2. With a spade, cut a clump of sod slightly larger than each opening. Place the sod near each entrance.
3. To prepare the gas cartridge for ignition, follow the written instructions on the label.
4. Kneel at the burrow opening, light the fuse, and immediately place (do not throw) the cartridge as far down the hole as possible. Gas cartridges are not bombs and will not explode. A long stick can be used to aid in pushing the cartridge deep into the burrow.
5. Immediately after placing the cartridge in the burrow, close the main opening by placing the piece of precut sod, grass side down, over the opening. Make a tight seal with loose soil. (Placing sod grass side down prevents smothering the cartridge with dirt.)
6. Stand by for 3-4 minutes and watch burrow holes. Seal those from which smoke is escaping.
7. If holes nearby the main entrance do not exhibit smoke following treatment, these burrows should also be treated.
8. Repeat these steps until all burrow systems have been treated in and around problem areas.

Caution should be taken to avoid prolonged breathing of gas cartridge smoke. Also, since sparks may be thrown, gas cartridges should not be used near buildings or any combustible materials.

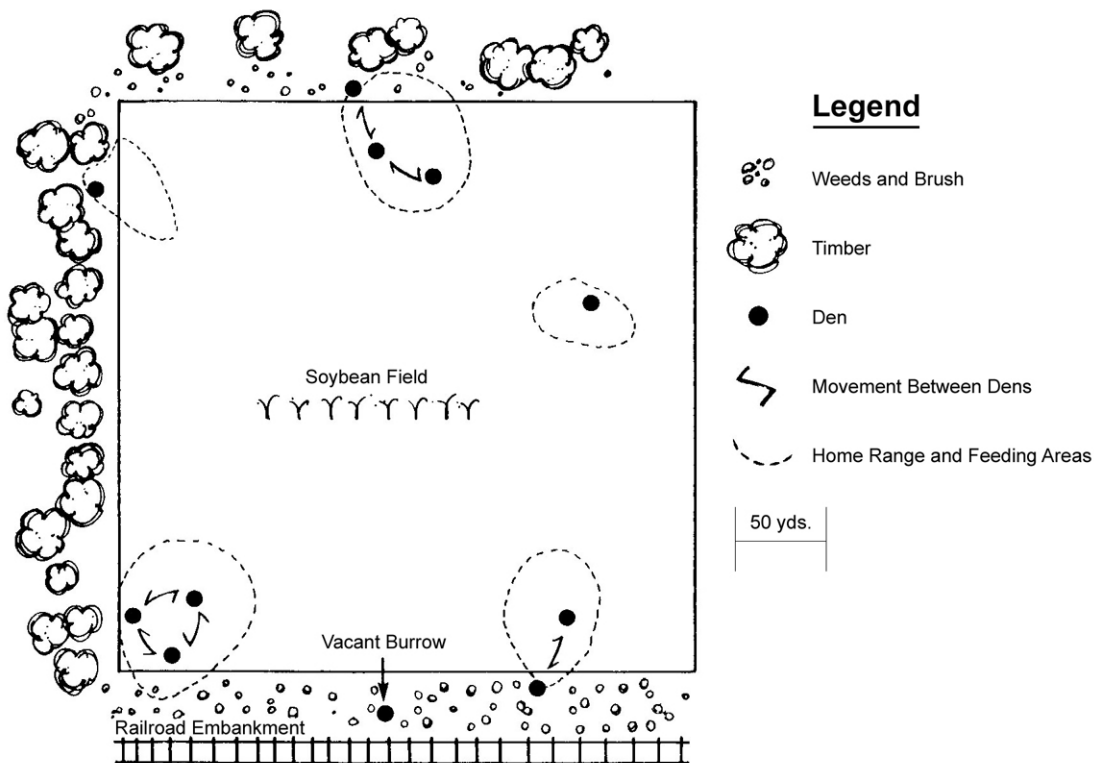


Figure 2. A two acre area of a soybean field during mid-summer with woodchuck den locations, movement between dens, home ranges, and feeding areas noted.

For best results, burrows should be treated on cool, rainy days or during periods of inactivity on other days. Because vacant burrows may be reoccupied by individuals from adjoining areas, all fumigated burrows should be rechecked weekly for one month. Any reoccupied burrows should be retreated. Fumigation should not be done after September since most woodchucks will be in hibernation and the hibernating chamber is often "walled off," rendering a fumigation treatment ineffective.

LIVE-TRAPPING

It is easy to live-trap woodchucks from around buildings or directly outside their dens in crop fields using either the Tomahawk No. 108, 108.5, 608, 608.5, or the Havahart Nos. 3, 3A or 1079. Set the live trap in the trail immediately in front of the main burrow entrance (Figure 3). Logs, twigs, or stones placed on either side of the path between the burrow opening and the trap will aid in funneling the animal toward the trap. If a double door trap model is used, set both doors of the trap open. Good baits for woodchucks include apple slices, carrots, sweet corn, and fresh lettuce.

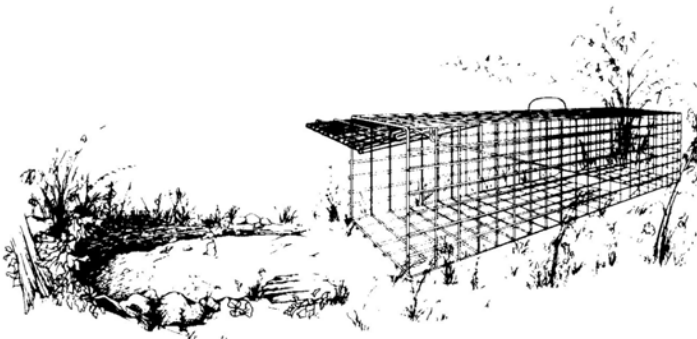


Figure 3. Wiremesh live trap

HELPFUL TIPS

- Woodchucks can be encouraged to enter live traps by providing a natural footing of earth on the bottom of the trap. To do this, push the trap back and forth on the ground to work the bottom of the trap into the earth.
- Lay out a trail of 2-3 small pieces of food spaced about five feet apart, leading directly into the trap. This will encourage the woodchuck to eat his way directly into the live trap. Place the majority of the bait inside the trap beyond the trap trigger.

- Prior to setting your live traps, set and spring each trap a couple of times to ensure the trap mechanism is functioning properly.
- To minimize stress and injury to trapped animals, check traps mid-morning and again before dusk.
- Traps containing animals should be covered with an old blanket or covered in some other way. Trapped animals tend to remain calm when kept in darkness.
- Should potentially dangerous animals such as feral cats or dogs be caught in the traps, they should be brought to the local humane society or animal shelter for proper handling, or consult these organizations for the most humane method of disposal or handling.
- Any non-target wildlife (e.g., local pets, birds, etc.) inadvertently captured should be set free immediately.
- Never, ever attempt to pet, handle or harass any captured woodchuck as some can be vicious biters and possess extremely sharp teeth and powerful claws.
- Captured woodchucks should be relocated at least 5 miles from the trap site and released in an area where they will not cause a problem for someone else.

Live traps may be rented from local humane societies and animal shelters. They can also be purchased from those companies listed at the end of this publication. However, such traps are relatively expensive and their purchase is hard to justify unless woodchucks, and other similar-sized animals (e.g., raccoons, opossums, rabbits, squirrels) pose a regular nuisance to the property owner.

SHOOTING

Where legal and safe, the quickest and surest method of eliminating woodchucks is to shoot them with a "varmint rifle" (e.g., scope sighted .243 caliber). A patient marksman can significantly reduce a local woodchuck population in a few days. Hunt during periods of greatest activity on fair-weather days. For more information go to our websites at: <http://www.wildlifehotline.info> or <http://www.in.gov/dnr/fishwild/>.

READ AND FOLLOW ALL LABEL INSTRUCTIONS. THIS INCLUDES DIRECTIONS FOR USE, PRECAUTIONARY STATEMENTS (HAZARDS TO HUMANS, DOMESTIC ANIMALS, AND ENDANGERED SPECIES), ENVIRONMENTAL HAZARDS, RATES OF APPLICATION, NUMBER OF APPLICATIONS, REENTRY INTERVALS, HARVEST RESTRICTIONS, STORAGE AND DISPOSAL, AND ANY SPECIFIC WARNINGS AND/OR PRECAUTIONS FOR SAFE HANDLING OF THE PESTICIDES.

Revised 4/2010

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